



Ideas of the Anthropocene: The Place of Aboriginal Philosophy in Contemporary Ecological Thought

University of Adelaide Arts Internship – The Jayco Group of
Companies and Taungurung Clans Aboriginal Corporation

Mahendra Chitrasu

mahendra.chitrasu@student.adelaide.edu.au

EXECUTIVE SUMMARY

This report answers the question of what the public ought to know about Aboriginal philosophy through the lens of a great contemporary problem: climate change. It does this to examine the rich ecological thought at the centre of Aboriginal philosophy and culture. The report contends that Aboriginal philosophy can offer recommendations for responding to climate change in two ways:

- i) The central moral obligation in Aboriginal philosophy is an intrinsic custodianship of the natural world. These obligations model the kinds of narratives that encourage a paradigm shift in the way people take responsibility for the care of the natural world.
- ii) It contains practical conservation strategies that assist in sustainable interaction with the environment. These strategies are known as traditional ecological knowledge. The report considers a case study of one TEK—the Aboriginal use of fire as a method to reduce greenhouse gas emissions—to exemplify the value of TEKs in battling climate change.

However, the report notes that Aboriginal ecological thought has been historically marginalised by the West. This is because there are two pervasive biases that are barriers to the recognition, study and potential implementation of Aboriginal knowledge. The report argues that Aboriginal TEKs can only guide action on climate change if these biases are repudiated, for otherwise, TEKs will remain marginalised and understudied. This is achieved through the application of three frameworks from epistemology (the study of knowledge). Each framework is crucial in identifying how the two biases formed, why they remain pervasive, and how we can overcome them. The report's recommendations follow from each of the frameworks. Each recommendation redresses the marginalisation of Aboriginal ecological knowledge by undermining both biases, increasing public awareness and enabling the implementation of TEKs in contemporary sustainability movements.

ACKNOWLEDGEMENTS

This report would not have been possible were it not for the efforts of my supervisor, Professor Jennifer McMahon, in organising an internship with the Jayco Group of Companies. My thanks to her for her continued support throughout the project. Thanks must also go to John Beresford, from Nagambie Development Enterprises, for his hospitality and generosity during my time in Nagambie. My work benefited substantially from the input of the members and staff of Taungurung Clans Aboriginal Corporation. I thank them for their time, assistance, and willingness to share their knowledge.

FOR EASE OF ACCESS

While it is recommended to read the report from the beginning, the accessibility of the report's findings is enhanced by the following points:

- ❖ Recommendation one is on page 19. Its explanation begins on page 13.
- ❖ Recommendation two is on page 32. Its explanation begins on page 28.
- ❖ Recommendation three is on page 37. Its explanation begins on page 34.
- ❖ Recommendation four is on page 41. Its explanation begins on page 39.
- ❖ A summary of recommendations is available on page 45.

CONTENTS

Executive Summary	1
Acknowledgements	2
Preface: setting scenes	5
1: Introductions	6
1.1: A heated issue—framing the problem	6
1.2: An outline of argument.....	8
1.3: Methodology	11

ABORIGINAL ECOLOGICAL KNOWLEDGE

2: Sustainability and an Aboriginal Worldview	13
2.1: Narratives with which to care for the world.....	13
2.2: Dreaming and creation	14
2.3: The Morality of Dreaming.....	16
Recommendation 1: Develop Indigenous Cultural Immersions	19
3: Methods of a Dreaming Ecology	21
3.1: The basis of Aboriginal traditional ecological knowledge	21
3.2: The West Arnhem Land Fire Abatement Project.....	22

THREE EPISTEMOLOGICAL FRAMEWORKS

4: The Subjugation of Aboriginal Knowledge	25
4.1: A launching point.....	25
5: Historical Silences and Epistemologies of Ignorance	28
5.1: The cult of forgetfulness	28
5.2: The history of ideas behind colonialism.....	29
Recommendation 2: Invest in Aboriginal Traditional Ecological Knowledge	32
6: Extinction and Epistemic Objectification	34

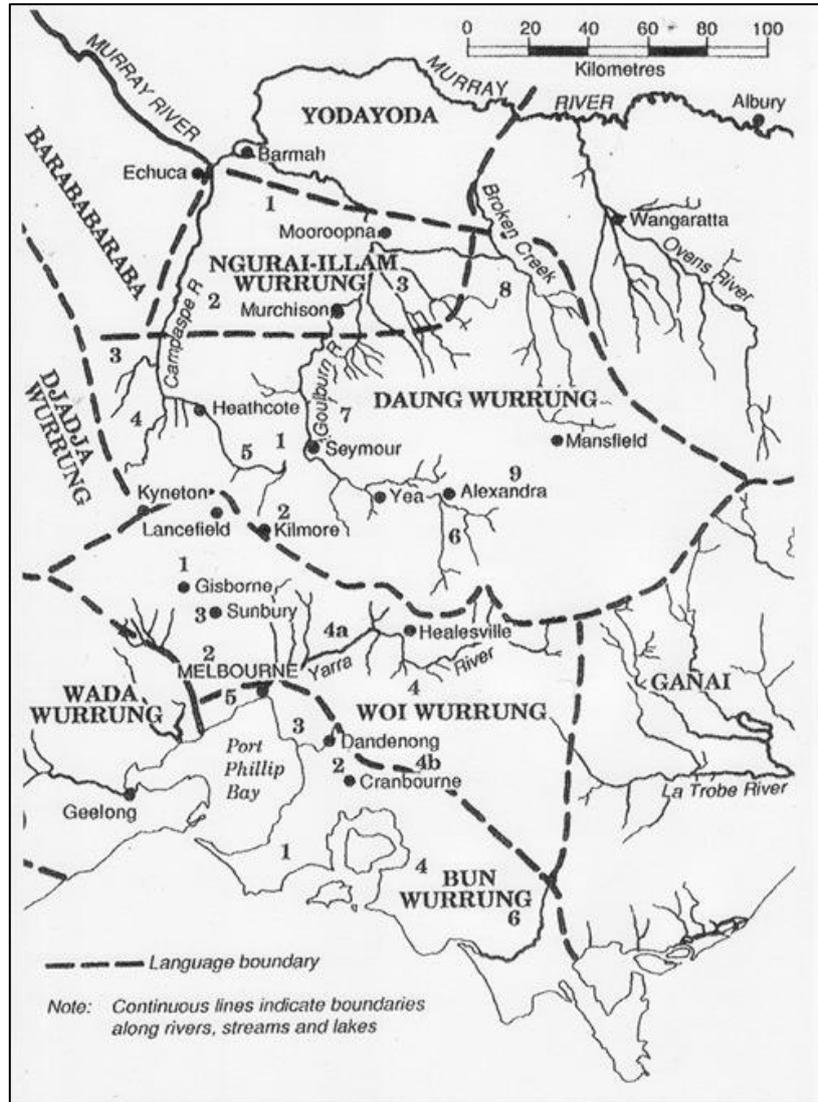
6.1: A rather unfavourable situation	34
6.2: Extinction and protection	35
Recommendation 3: Display Aboriginal Traditional Ecological Knowledge in the Taungurung Cultural Centre	37
7: Credibility and Epistemic Injustice	39
7.1: Credibility, prejudice, and missing out	39
7.2: The silencing of the Indigenous voice	40
Recommendation 4: Host Conferences on Traditional Ecological Knowledge	41
CONCLUSIONS	
8: Moving Forward: Ideas of the Anthropocene	43
8.1: The place of Aboriginal ecological thought	43
9: A Summary of Recommendations	45
Appendix 1: Ethics	46
Reference List	47

PREFACE: SETTING SCENES

AN INTRODUCTION TO THE TAUNGURUNG CLANS

This report was commissioned by the development enterprises of the Jayco Group of Companies in Nagambie, Victoria in conjunction with the Taungurung Clans Aboriginal Corporation (TCAC). One proposed development in Nagambie is a cultural centre for the Taungurung people, whose traditional lands range from the upper reaches of the Goulburn River and around Heathcote, Kilmore, and Mansfield (see Figure 1 below). Some introductory comments on the Taungurung people contextualise the report that follows. The Taungurung are part of the Kulin Nation: one of four confederacies of Aboriginal groups in Victoria that are bound by common Dreaming ancestors, creation stories, and socio-economic organisation (Barwick, 1984: 105). Other members of the Kulin Nation are the Wathaurong, the Woiwurrung, the Dja Dja Wurrung, and the Boonwurrung. Originally, the Taungurung were semi-nomadic peoples divided into nine clans. Each clan had its own territory, responsibilities, and moieties (kinship divisions), though with shared lineage and historical and religious identity (TCAC, n.d.: 57; Barwick, 1984: 106; Presland, 2010: 34). Their kinship system is made up of a web of social and familial relationships, and organises identity, social life and responsibilities (TCAC, 2016).

Figure 1: Ian Clark’s map of the Kulin Nation, showing traditional clan areas
 (from Presland, 2010: 14).¹



¹ There are many ways “Taungurung” has been spelled. In Clark’s map, it is spelled Daung Wurrung. This report uses “Taungurung” because it is reflected in the spelling of TCAC, the Registered Aboriginal Party representing the group’s interests.

1: INTRODUCTIONS

1.1: A HEATED ISSUE—FRAMING THE PROBLEM

CHANGING TIMES

This report is framed by the proposed Taungurung cultural centre. In its development, one will ask what the public ought to know about Taungurung and Aboriginal culture. The lens through which I answer this inquiry is a great challenge of the 21st century: climate change. Anthropogenic (human-caused) climate change is the substantial warming of average global temperatures. The associated effects of this global warming—loss of biodiversity, an increased frequency of extreme weather events, disturbed crop production, and millions of displaced climate refugees—are devastating for life as we now know it (Parmesan and Yohe, 2003). Such is the extent of climate change that the Dutch Nobel Prize-winning scientist, Paul Krutzen, announced in 2000 the arrival of the Anthropocene—a geological *epoch* dating the period from which humans have drastically affected the earth’s biosphere, causing mass extinctions, widespread environmental pollution, and radical atmospheric change (Castree, 2016; Woinarski et al., 2015). It is no surprise, then, that the problem of how to live sustainably is one of the most important of our time. But what bearing does Aboriginal philosophy have on climate change? It is this question that I grapple with in the report that follows.

THE PLACE OF ABORIGINAL PHILOSOPHY

The problems of climate change are complex. Some are technological. How do we, for instance, create new, efficient renewable energies? Others, however, require paradigm shifts in the ideas and narratives that drive our actions: how do we think in such a way that our daily choices collectively reduce global warming? While Aboriginal philosophy does not contain *all* the answers here, it does, however, hold

some possibilities.² What, then, am I claiming these answers are? In this report, I contend that Aboriginal philosophy has a bearing on our response to climate change in two ways:

- i) It models the kinds of narratives that encourage a paradigm shift in the way people take responsibility for the care of the natural world;
- ii) It contains practical conservation strategies that assist in sustainable interaction with the environment.

In exploring these two points, one grapples with the core of Aboriginal philosophy, its historical treatment, and the place of Aboriginal culture today—all exceptionally useful in the preparation of a cultural centre for the Taungurung.

1.2: AN OUTLINE OF ARGUMENT

THE ECOLOGY OF ABORIGINAL PHILOSOPHY

In what follows, I first expound Aboriginal philosophy in Section 2. I do this to stake a claim for my conclusion i) above: that Aboriginal philosophy encourages a reconsideration of our responsibilities in the Anthropocene. A significant finding

² Some further comments here may be useful. It would be naive to suggest that the heated cauldron of *climate justice*—debates on who should pay for pollution reparations—will be tempered by a splash of Aboriginal philosophy: these are problems which are most suited to economics and global politics. Equally wrong is it to romanticise Aboriginal people and their culture as panaceas of our modern malaise. Diane Bell’s comment is illustrative: “On what basis do we assume that indigenous people hold some mystical secret waiting to be plumbed, that they exist to save Western society and the planet with their knowledge?” (Bell, 2001: 482) Bell’s comment is an important one to note. Indeed, there are significant dangers in idealising Aboriginal culture—this both appropriates it and blinds us to its shortfalls and limitations (Ross et al., 2010: 25). However, Bell’s comment does not then halt the study of Aboriginal ecological ethics I undertake in this report. While I focus on the nature of Aboriginal moral obligations to the land, I am not suggesting by any means that this is all Aboriginal people are valuable for, nor am I suggesting that before colonisation, Aboriginal people lived idyllic, untainted lives, in harmony with the natural world. As W.E.H. Stanner writes about Aboriginal culture at large: “I do not wish to create an impression of a social life without egotism, without vitality, without cross-purposes, or without conflict. Indeed, there is plenty of all, as there is of malice, enmity, bad faith, and violence” (qtd. in Rose, 2000: 224). While there is no denying the social problems Aboriginal people face, I am interested here in the nature of what Stanner describes as “a system whose first principle is the preservation of balance.” (qtd. in Rose, 2000: 224)

in Section 2.1 and 2.2 is that the central moral obligation in Aboriginal philosophy is an intrinsic custodianship of the natural world. I explore in Section 2.3 the implications of these custodianships as models for the kinds of narratives that allow for sustainable interaction with the natural world.

Having demonstrated this conservationism within Aboriginal thought, I stake a claim for conclusion ii) in Section 3 and 3.1: that Aboriginal philosophy contains several practical and effective conservation strategies worthy of study and implementation. I do this by examining what is known as traditional ecological knowledge (TEK). TEKs are the “cumulative body of knowledge” of sustainable land and resource management that evolves through trial and error over hundreds of generations (Berkes, 1999: 8). In Section 3.2, I provide a case study of one TEK—the Aboriginal use of fire as a method to reduce greenhouse gas emissions—to exemplify the value of TEKs in battling climate change.

HISTORICAL BARRIERS TO TRADITIONAL ECOLOGICAL KNOWLEDGE

However, in Section 4, I note that Aboriginal ecological ethics has been historically marginalised by the West. This is because there are two stubbornly pervasive, intertwined biases that are barriers to the recognition, study and potential implementation of Aboriginal knowledge. These biases have significantly obscured understanding of Aboriginal conservationism. The two biases are:

- i) the continuing legacy of *terra nullius*—the doctrine that Australia was uninhabited at the time of colonisation;
- ii) the tacit assumption that Aboriginal culture is inferior and primitive compared to contemporary Western society.

I found that the former is a product of the latter. These biases shape resistance to Aboriginal TEKs in two ways (Ross et al., 2010: 96-100):

- i) TEK is ignored: the historical treatment of Aboriginal knowledge is such that it is marginalised;

- ii) TEK is deemed invalid: the nature of cognitive authority in the West renders Aboriginal knowledge as lacking appropriate credibility.

THREE EPISTEMOLOGICAL FRAMEWORKS

Aboriginal TEKs can only guide action on climate change if these biases are repudiated, for otherwise, TEKs will remain marginalised and understudied. I achieve this correction through the applications of three frameworks from epistemology (the study of knowledge). The three frameworks are:

1. The ‘epistemology of ignorance’. This is the study of “patterns of active ignorance” (McHugh qtd. in Steyn, 2012: 9). In Section 5, I argue this framework highlights how the guiding ideas of colonialism systematically clouded understanding of Aboriginal TEKs (affirms *terra nullius* and perceived primitiveness).
2. ‘Epistemic objectification’. This is where a group’s real or perceived epistemic deficiencies are taken to be inherent to that group’s nature, as opposed to the product of contingent social factors. In Section 6, I argue this framework highlights how the decline of traditional Aboriginal society through disease, violence, and dispossession was wrongly believed to be a product of the perceived inferiority of Aboriginal people, further marginalising Aboriginal TEKs (perpetuates perceived primitiveness).
3. ‘Epistemic injustice’. This is where individuals, due to a prejudice held by a listener, are given unjust credibility attributions—that is, systematically disbelieved. In Section 7, I argue this framework highlights how TEKs are more likely to be unfairly dismissed, compounding the errors of both biases.

Each framework is crucial in identifying how the two biases formed, why they remain pervasive, and how we can overcome them. My recommendations follow from each of the frameworks. Each recommendation redresses the marginalisation of Aboriginal ecological knowledge by undermining both biases, increasing public

awareness, and enabling the implementation of TEKs in contemporary sustainability movements.

1.3: METHODOLOGY

QUESTIONS AND METHODS

Three key questions guided the writing of this report:

1. What relevance does Aboriginal knowledge have in the Anthropocene?

From this followed:

2. How and why is Aboriginal philosophy an ecological ethic?

And from this followed:

3. What are the barriers to implementing Aboriginal ecological knowledge?

To answer these questions, both primary and secondary sources were used. Three main research methodologies were employed. The first was an extensive literature review. The primary fields examined relate to the respective questions above:

1. Environmental philosophy;
2. Ethnography of Aboriginal culture and spirituality;
3. Alternative epistemologies (ways of knowing).

The second component involved open-ended interviews with Taungurung people to analyse the specifics of Taugurung philosophy (answering questions 1 and 2).

The third component was archival work on the history of colonisation in Victoria at the State Library of Victoria; Bunjilaka, the First Nations centre at Melbourne Museum; and online at the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) (answering question 3).

SOME CRITICAL COMMENTS

This report used what can be termed an “Indigenous knowledges approach” (Grieves, 2009: 4). Such an approach seeks out and privileges the voices of Aboriginal people, rather than relying solely on the digested writings of non-Aboriginal academics. The approach therefore empowers Aboriginal people to express their philosophy themselves.

In fact, it became apparent that there is a lack of scholarly material on the philosophy of the Taungurung people specifically. To overcome this challenge, the report’s scope expanded to consider the philosophy of both the Kulin Nation, and Aboriginal culture generally, with the information attained through interviews allowing Taungurung philosophy to act as the centrepiece of the project. While it would be ignorant to suggest that Australian Aboriginal groups are homogenous, this study continued because there are broad similarities between all Australian Aboriginal groups, and an even greater affinity between members of the Kulin Nation (Healy, 2017; Charlesworth, 2005: 2). These similarities include, most importantly for this project, rules of behaviour derived from Dreaming stories (Lippman, 1994: vii).

Lastly, it should be noted that this report can only ever be an outline: its size and scope are such that it is unable to offer a comprehensive, systematic account of the minutiae of Aboriginal philosophy, or *all* the complex reasons why Aboriginal knowledge has been marginalised.³ In some cases, this information is already available; in others, much further research is needed. Altogether, this is apt. The report passes the baton onto Aboriginal people themselves to continue the process. As the “Indigenous knowledges approach” advocates, they are the best speakers of their philosophy.

³ Moreover, as a non-Aboriginal person unable to speak any Aboriginal language, it is inevitable that some nuance of Aboriginal philosophy will remain inaccessible to me.

2: SUSTAINABILITY AND AN ABORIGINAL WORLDVIEW

2.1: NARRATIVES WITH WHICH TO CARE FOR THE WORLD

THINKING ABOUT ECOLOGY, AND THE MAN-NATURE RELATIONSHIP

How do we think in such a way that the daily choices we make collectively reduce global warming? It is instructive to first consider how *not* to think, for it is in considering how *to* think that the relevance of Aboriginal philosophy to climate change is revealed. Let us constrain our focus to thinking about the environment; as the medieval historian, Lynn White Jr., famously noted, “What we do about ecology depends on our ideas of the man-nature relationship” (1967: 1207). One “unit idea” that dictates much Western behaviour toward the natural world is anthropocentrism: the view that i) humans are the most significant organisms in the world; and ii) the world was made for the use of humans. “Unit ideas” refer to the “endemic assumptions” that dictate the “course of [our] reflections on almost any subject” (Lovejoy, 1936: 10). In contemporary Australia, capitalism and democracy are such “unit ideas”. Unit ideas and their associated concepts shape the lens through which we understand the world (Mills, 2007: 27). The strong pull of Christian thought on Western culture exerts a pervasive, tacit commitment to anthropocentrism. This famous passage from *Genesis* 1: 26-28 is illustrative:

And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth.

Here, the anthropocentrism is clear in its moral import: “man”⁴ is the controller of the natural world, and wields the ability to exploit nature for his own desires (James, 2015: 114; White, 1967: 1206).⁵ While anthropocentric thinking does not

⁴ I use “man” here to reflect the usage in the Biblical passage which I am referring to.

⁵ It should be noted that this is not the only interpretation of this passage. It is, however, the most influential (Callicott, 1994).

automatically entail the exploitation of the natural world, it does encourage it (James, 2015: 114).

GROWTH, EXPLOITATION, AND ANTHROPOCENTRISM

Much of the industrial growth of the last 200 years has been justified by anthropocentrism. The natural resources of the world have been harvested for human ends. Although such growth has improved the quality of life of millions of people, it has also led to tremendous environmental degradation. In Australia, for example, there has been an extraordinarily high rate of extinction of terrestrial mammals since colonisation (>10% of 273 species), with a further 21% now categorised as threatened (Woinarski et al., 2015: 4531). Man domineering over nature is especially clear in this extinction. Early colonists aggressively hunted local wildlife now extinct or threatened. Two of many such examples are the brush-tailed rock-wallaby (100,000 skins marketed by one company alone in one year—1908) and the koala (500,000 skins collected in 31 days in 1927) (Woinarski et al., 2015: 4534). The nature and purpose of this growth is therefore deserving of question. As Robert Louis Stevenson noted, if we neglect to heed the limits of our ability to take from the earth (our carrying capacity) then the ‘Law of Compensation’—receiving what we sow—may spell the collapse of society as we know it (Hayden, 1994: xx). Tom Hayden puts it more bluntly: “At present, the myopic momentum of industrial ‘growth’ continues on a collision course with the environmental underpinnings of life.” (Hayden, 1994: xx).

2.2: DREAMING AND CREATION

THE ECOLOGICAL NARRATIVES OF ABORIGINAL PHILOSOPHY

Aboriginal philosophy offers some instructive lessons in ecological thinking—lessons that highlight its value and significance in contemporary sustainability movements. Indeed, the rich ecological thought in Aboriginal philosophy is the first way it can guide action on climate change (Newell, 2017). The spiritual framework of Aboriginal ecological thought is the Dreaming, the Aboriginal

metaphysical explanation of creation, and fundamental “principle of order” (Stanner qtd. in Grieves, 2009: 10).⁶ The stories and narratives of the Dreaming obligate Aboriginal people to conserve and care for the environment. It is thus necessary to briefly characterise the nature of the Dreaming to contextualise the moral obligations which are contingent upon it.

The Dreaming begins with time immemorial: creation. Here, totemic beings (*liwik* in Taungurung) were the first sentient life to exist, and instituted “a global regime of cause and effect” (Healy, 2011: 303; Morton, 2000: 11). These totemic being are eternal and transcendent; they created all living things, and shaped the land into the way it now exists (Callicott, 1994: 174; Rose, 2000: 41). After this activity concluded, each ancestral creator went to rest in the land, and their manifestation (petrosomatoglyphs) in the land left sacred (immanent) places known as “increase sites” (Hume, 2002: 25; Morton, 2000: 11).⁷ According to the Taungurung elder, Larry Walsh, Bunjil, the Eagle Hawk, is the creator in Kulin Dreaming, while Waa, the Crow, is the protector (TCAC, 2016; Isaacs, 1980: 57). Bunjil:

sung the Law

How to be in Country

How to care for family and children

To remember our Ancestors and Old People

If his Laws are broken, he destroys. (Melbourne Museum, 2017)⁸

⁶ It should be noted that there are problems in translating this term into English. The early anthropologists, Baldwin Spencer and F.J. Gillen, translated *altijira ngambakala* as ‘dreaming’, but the more accurate translation is ‘originating from eternity’ (Grieves, 2009: 8). The word for the Dreaming in Taungurung is *bamburr-na ngi* (Healy, 2011: 303). However, as ‘dreaming’ has entered into common parlance while discussing Aboriginal philosophy, it is employed in this report.

⁸ In an analogous way to some Christians, who read Genesis as a literal explanation of how the world was created, some Aboriginal people view the Dreaming equally literally. Others, however, view the genetic beliefs of the Dreaming as a spiritual narrative. I should clarify that it is this

Image 1: Bunjil, the Eagle Hawk

2.3: THE MORALITY OF DREAMING

ECOLOGICAL RELATIONALITY

The result of creation is what Hume calls a “geosophy”: a sentient land containing wisdom from the past (2002: 25). In Aboriginal epistemology, such knowledge—*yulendj* in Taungurung—is communicated through “graphic and cognitive systems” that “symbolically represent the bonds between the people and the landscape” (Kelbessa, 2011: 576). These systems, such as storytelling, dance, art, and ritual, record the events of the Dreaming and enable people to “convers[e] with the natural world” (Whitt et al., 2003: 16). It is this conversational connection, and the narratives that accompany it, which grounds Aboriginal ecological morality. The specific term used to describe such a connection is “relationality” (Moreton-Robinson, 2017). Relationality is understood through genealogies—that is, “stories of origins.” (Whitt et al., 2003: 4) In Aboriginal philosophy, everything is spiritually alive and interconnected through genealogies determined by the stories

latter point that I am interested in. The effects of these narratives on behaviour—rather than the literal truth of their contents—is what I argue is a model for sustainable interaction with the natural world.

of the Dreaming.⁹ For example, the Taungurung elder, Lee Healy, tells in the creation story, *The First Taungurung Women*, how women appeared from the *biik* (Country) itself, formed from the mud (VACL, 2014). The story thereby instils a connection to the land in the very nature of a woman's being. Creation stories also relate humans directly to animals, affirming the belief "that he or she has the same being": they are their kin, and some are their totems (Berndt, 1979).¹⁰

These genealogical affiliations were a key theme in the conducted interviews, and are crucial in understanding Aboriginal custodianships to the land. For example, the Taungurung man, Shane Monk, stated, "We come from the land, we belong to it" (2017).¹¹ Monk's statement exemplifies how Indigenous belonging is ontological (relating to their very being) rather than acquisitive (relating to ownership) (Moreton-Robinson, 2017). There are moral obligations between individuals and the natural world because of their *ontological* connectedness—that is, a connection inherent in the nature of their being. These "[g]enealogical bonds are normative bonds" that give rise to what the Taungurung elder, Mick Harding, calls an "inherent reciprocal relationship", which "define[s]

⁹ This is what is known as an animistic metaphysics (Paulson, n.d.; Grincheva, 2013: 157).

¹⁰ It is worth noting that another system for communicating these connections to the land is *marrin gulinj* (ceremony) (Healy, 2011: 288). As Eugene Stockton writes, "The dreamer, painted with the same designs of his Dreaming, became a living icon, a pure embodiment of the Dreaming ancestor" (1995: 54). For example, during the 2017 Tanderrum, the traditional corroboree of the Kulin Nation that now opens the Melbourne Festival, several Taungurung dancers assumed the identity of Bunjil, moving with their arms outstretched, imitating an eagle hawk in flight. Yet it would be incorrect to suggest that such obligations are only recognised during special rituals. In fact, Taungurung people are literally "wrapped in country" on a day to day basis. The possum skin cloaks they wear are marked with Dreaming stories and knowledge of the land. Individuals are given a cloak at birth, carry it through their life, and ultimately buried in it at death (Melbourne Museum, 2017). The cloak comes to represent the tremendous significance placed on respect toward the land—as a source of food, shelter, and spiritual nourishment.

¹¹ This can be difficult for non-Aboriginal people to understand. While the call for land rights has sometimes been interpreted as a push for economic advancement (in the settler colonial economy, land is a resource) in Aboriginal culture, the relationship is reversed (Brennan, 2005). As Shane Monk notes, "The land owns you; you belong to the land. You're just a custodian."¹¹ (2017; Shaw, 1996: 21). This is because the land, according to Chris Marshall, founding CEO of Native Title Services Victoria, is "expressive of spiritual truths", and is therefore viewed over and above "an economic resource" (2017).

responsibilities...between humans the ecosystem”, guiding land management (Whitt et al., 2003: 8; Harding, 2017; Barwick 1984: 106). By “reciprocal relationship”, Harding is noting that this is a relationship with natural resources, necessary to avoid exploitation, where one cares for the land in such a way that one can be sustainably nourished by it for generations to come (Lehman, 2000: 34).

LAW, RESPECT, AND CUSTODIANSHIP

Responsibility is encoded and instituted in Aboriginal Law, which Loraine Padgham, a Taungurung elder, states is the system of rules and regulations that binds the world (TCAC, 2016). The Law teaches how the world’s interdependence results in an inter-responsibility (Grieves, 2009: 8; Morton, 2000: 11). This relationship is marked by respect, the most shared virtue among Indigenous groups in their approach to the land. Respect here refers to an appreciation of the value something has in virtue of the “fact that it inheres in, or belongs to, the natural world”, and “realising the vital role it plays in sustaining” that natural world (Whitt et al., 2003: 13).

Aboriginal ecological behaviour is thus guided by narratives that ascribe to them the status of guardians of the land. As Morton states, “Looking after country can fairly be said to be a kind of supreme good.” (2000: 13)¹² The centripetal importance of relationality means that the most important connection for any Taungurung person is their “attachment, through their place of birth, to land”, for it is here where they enact their moral responsibilities (Presland, 2010: 1; Lippman, 1994: 34).

In fact, it is impossible for Aboriginal people to exist outside of and apart from Nature: their genealogies bind them to the external world (Whitt et al., 2003:

¹² Dr Miriam-Rose Ungunmerr, an Aboriginal elder from the Daly River, uses the term *dadirri*, an “inner, deep listening and quiet, still awareness”, to define the Aboriginal reverence to nature (2017: 14). This reverence is reinforced through several Dreaming stories that illustrate my point. One Woiwurrung creation story, for instance, tells of an arrogant young man who is turned into a platypus because of his disregard of the need to be humble and respect nature (VACL, 2014: 4).

6). Unlike mainstream Western society, Aboriginal people hold a non-anthropocentric conception of the world: it was not created specifically for humans (Rose, 1996: 28). Shane Monk exemplifies this philosophy when he states, “[If] [y]ou look after the land [...] the land will look after you” (Monk, 2017). As Francisco Almeida, archaeologist and cultural heritage manager at TCAC, observes, these connections mean that “the most important part about [Aboriginal ecological thinking] ... is they have a clear notion of responsibility and they have a clear notion that their actions will have repercussions not to them, but to their sons and grandsons” (2017). A testament to the depth of these ontological connections is found in an anecdote recollected by John Woinarski, a professor of conservation biology. Woinarski notes that two Aboriginal elders, upon being shown museum specimens of terrestrial mammals that became extinct during their lifetime, sung the songs of the animals, cried and mourned for their loss, and felt as if “they had failed in their responsibility to maintain these species in their country” (Woinarski et al., 2015: 4538). It is, to quote Woinarski, “an affinity for nature and a lesson that the rest of society should learn. Else, the many extinctions expected in the future will be seen as inconsequential.” (2015: 4538) Woinarski is correct. But Aboriginal philosophy is not only instructive in the way it models narratives that drive Aboriginal people to act sustainably. In the next section of this report, I explore the practical, utilitarian benefits toward sustainability of engaging with Aboriginal philosophy.

RECOMMENDATION 1: DEVELOP INDIGENOUS CULTURAL IMMERSIONS—LINKED TO THE ABORIGINAL APPROACH TO THE LAND

Strategy: Consider partnering with TCAC to develop indigenous cultural immersion activities, such as a week-long camp.

Means: Starting at the cultural centre, participants could be guided by Taungurung people through an interpretative trail of Country.

Outcomes/Benefits: The immersion would provide an opportunity for tourists to gain substantial knowledge of the Nagambie region. The paradigm shifts this report discusses—an approach to the land that is founded on responsibility and custodianship—could be communicated to the wider public in a way that may lead to lasting change. Such an immersion would aim to encourage a shift away from the view of land as simply an economic resource for development to instead seeing the land as also holding great spiritual worth and value. The intimacy of the activity facilitates this change.

3: METHODS OF A DREAMING ECOLOGY

3.1: THE BASIS OF TRADITIONAL ECOLOGICAL KNOWLEDGE

A REFLEXIVE RELATIONSHIP

Traditional ecological knowledge (TEK) is the central method through which Aboriginal people enact what Rose calls a “reflexive moral relationship of care” with the land (Rose, 1984). TEKs are methods of sustainable interaction with the natural world and the second reason why Aboriginal philosophy has bearing on fighting climate change. TEK, common to many Indigenous traditions worldwide, are developed through a cumulative process of trial and error over many generations (Ross et al., 2010: 34). The Native American philosopher, V.F. Cordova, describes this as an ‘indigenous pragmatism’ where “[s]omething is believed to be true if it is verified by experience to have sufficient explanatory power to enable a person to accomplish tasks” (Arola, 2011: 566).¹³ This pragmatism is elaborated by Gregory Cajete in his *Native Science: Natural Laws of Interdependence* (2000):

Indigenous populations learn from what has succeeded and modify the way in which they conceive of the world to accord with results, always aware that there is more to be learned from experience, all the while maintaining a full awareness that anything understood as true or appropriate to believe in any given moment is always transient and revisable through further experience and further dialogue with the world. (qtd. in Arola, 2011: 566)

¹³ This knowledge is what the philosopher, Lorraine Code, would call “situated”—site-specific and local (1981, 1987). That is, Aboriginal groups have knowledge predominately over the local environments with which they are familiar, and this is a knowledge that does not automatically transfer across contexts.

3.2: THE WEST ARNHEM LAND FIRE ABATEMENT PROJECT

A CASE STUDY OF FIRE

TEKs can be applied to tackle specific contemporary environmental problems. In what follows, I provide a case study examining a central land management practice in Aboriginal TEK—the use of fire. Aboriginal plain burning has been found to be a method of reducing greenhouse gas emissions. Yet, before exploring how this occurs, it is important to note that Aboriginal people did not traditionally use fire to reduce greenhouse gas emissions. Rather, fire had several other functions. It was used pragmatically (to clear walking trails through long grasses), economically (to hunt macropods and other animals), spiritually (to cleanse ‘pollution’ after the death of clan elders), and ecologically (to promote new growth) (Langton, 1998: 40-41).

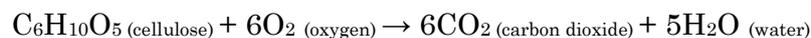
The ecological use of fire is what is interesting here. This occurred through “mosaic-burning”, where the land is selectively burned, leaving a patchwork arrangement of regrowth (food) and unburned land (shelter).¹⁴ The ecological use of fire was a *knowledge how* born from a need to prevent wildfire. Uncontrolled wildfires were tremendously dangerous for Aboriginal people: they destroyed vast swathes of food, killed people, and radically altered the landscape. Early season burning reduced the frequency of and sometimes prevented damaging late season wildfires. As the historian, Bill Gammage, writes, Aboriginal “[p]eople had to prevent [fire], or die” (2011: 157). Unlike wildfires, which burn hot and consume

¹⁴ In those Aboriginal groups that perform burns of the land, the knowledge required is developed from an early age through story, ritual, observation, and practical experience (Yibarbuk, 1998: 1; Monk, 2017). These skills are acquired by the community over many thousands of years (Yibarbuk, 1998: 3). Burning only occurs under select conditions and via certain methods. The individual must have extensive local knowledge of the environment: its soil type, geography, vegetation, and climate. As a result, fire is not seen as an unequivocal danger—it has its risks, but when managed appropriately, is an extremely useful tool. As Shaun Ansell, chief executive of Wardekken Land Management notes, “People here see burning as like mowing the lawn. It's how they maintain and manage their land” (qtd. in Korff, 2017). Yet, the parallel is not completely correct, for burning is heavily regulated. Gammage notes that “To burn improperly was sinful” and that “unleashing uncontrolled fire was a most serious offence” (2011: 160).

much of the upper canopy, when forest and plain areas undergo controlled burns, the temperature of the burn is kept low. This ensures the fire does not spread into the canopy, while still clearing the mid-crop (Monk, 2017). If this kind of ‘cool burning’ occurs regularly, as it should, the fuel load of that location decreases, and so too does a potential wildfire’s temperature and intensity (Rose, 1996: 66; Gammage, 2011: 161).

BURNING AND GREENHOUSE EMISSIONS

It is this type of burning that has been found to reduce harmful greenhouse gas emissions. Dean Yibarbuk, a fire ecologist and Chairman of Wardekken Land Management, and his Wardekken rangers, were awarded the Australian Museum Eureka Price for Innovative Solutions to Climate Change, and the Banksia Award—Australia’s ‘environmental Oscars’—for their work within the West Arnhem Land Fire Abatement Project (Department of Sustainability, 2012). The West Arnhem Land covers approximately 28000 km². Prior to the commencement of the project, around 40% of the area was burnt each year by wildfires, of which 32% occurred during the late dry season (CSIRO, n.d.). These wildfires release a tremendous amount of greenhouse gases into the earth’s atmosphere, including carbon dioxide, nitrous oxide, and methane. An increase of greenhouse gases in the earth’s atmosphere causes global warming (Parmesan and Yohe, 2003). Controlled, early season burning reduces emissions by more than 100,000 tonnes each year (equivalent to the carbon sequestered from 2.59 million tree seedlings grown for 10 years) (CSIRO, n.d.; EPA, 2017).¹⁵ This is because the combustion of wood, which is largely constituted by cellulose, emits carbon dioxide:



While some of this carbon dioxide is sequestered by new vegetation through photosynthesis, more plant material is burned by late season wildfires than what is re-absorbed by new growth (Cooperative Research Centre for Tropical Savannas

¹⁵ Figures for greenhouse emissions saved from traditional burning Australia-wide put the number at 500,000 tonnes (Korff, 2017).

Management [CRCTSM], 2009). Therefore, over time, the environment's biomass—that is, quantity of plant matter—reduces, meaning there is a net release of carbon dioxide. However, through early-season controlled burning, fire is prevented from reaching the canopy, reducing the biomass lost from tree trunks and upper limbs. This allows plants to extract more CO₂ from the atmosphere (CRCTSM, 2009).

Mosaic-burning is especially important today. With mean temperatures increasing in the Anthropocene due to global warming, so too does the frequency of extreme weather events, such as prolonged drought and elevated temperatures, that can cause wildfires.¹⁶ According to Craig Lapsley, Victoria's Emergency Management Commissioner, the 2015 Great Ocean Road bushfires, caused by a lightning strike, destroyed as much as it did (a third of the properties in Wye River) because "this country has not burnt [or] had a fire in it, in decades" (qtd. in Korff, 2017). Such a feedback loop is inhibited through applying traditional ecological knowledge of mosaic-burning.

¹⁶ The West Arnhem Land Fire Abatement Project is not the only Aboriginal TEK relevant to the Anthropocene. Spiritual totemic relationships, for example, ensured Aboriginal groups did not hunt keystone species (often identified as totems) in food webs. These species are integral to the overall health of the ecosystem (Pungetti, 2012: 19). Another TEK is the use of the traditional calendars of the Ngurrara people from the Great Sandy Desert as a way of predicting and measuring the impact of climate change (Department of Sustainability, 2012). The scope of this report is such that further detail on these techniques cannot be included here. See the Department of Sustainability, Environment, Water, Population and Communities' (2012) publication, *One Place, Many Stories: Our Country*, for a brief synopsis of some Aboriginal TEKs.

4: THE SUBJUGATION OF ABORIGINAL KNOWLEDGE

4.1: A LAUNCHING POINT

SUBJUGATED KNOWLEDGES

While the case study on the Aboriginal use of fire demonstrates the value of traditional ecological knowledge in modern conservationism, it is an unfortunate conclusion of this report that Aboriginal TEKs have unfairly been “rendered invisible” as ‘subjugated knowledges’ (Langton, 1998: 9; Muecke, 2011). ‘Subjugated knowledges’ are “a whole set of knowledges that have been disqualified as inadequate to their task or insufficiently elaborated: naïve knowledges, located low down on the hierarchy, beneath the required level of cognition or scientificity.” (Foucault, 1980: 81-82) The subjugation of Aboriginal knowledge can occur overtly—through undermining the worth of Aboriginal culture or philosophy—and tacitly—through ignoring Aboriginal history. The tacit feeds the overt. Historical examples of both forms are bountiful. Three are illustrative:

1. *“The inhabitants of this Country are the miserablest [sic] People in the world... They differ but little from Brutes...”* – William Dampier, early explorer of Australia (qtd. in Thompson, 2011)
2. *“This Conference believes that the destiny of the natives of aboriginal origin [sic], but not of the full blood, lies in their ultimate absorption by the people of the Commonwealth, and it therefore recommends that all efforts be directed to that end...”* – Initial Conference of Commonwealth and State Aboriginal Authorities in 1937 (Commonwealth of Australia, 1937).
3. *“The arrival of the First Fleet was the defining moment in the history of this continent. Let me repeat that, it was the defining moment in the history of this continent”* – A prominent Australian politician (qtd. in Dingle, 2014)

Common to these comments is the assumption that Aboriginal culture and knowledge is primitive, inferior, or irrelevant (Ocholla, 2007). This assumption means Aboriginal knowledge is viewed as illegitimate. Incorrectly relegating Aboriginal traditional ecological knowledge as illegitimate means their value for contemporary environmental crises is, at the very best, greatly inhibited, and at worst—and more likely—ignored altogether. If one is committed to sustainability, then this is an outcome that ought to be reversed.

BIAS AND MOSAIC-BURNING

Considering the reception of Aboriginal mosaic-burning offers a useful launching point for why Aboriginal knowledge has been subjugated in this way. One of the key sources of ignorance about Aboriginal ecological knowledge is the falsehood of *terra nullius*: that Australia was an unoccupied at the time of colonisation. The concept of *terra nullius* is based on the principle that Aboriginal people did not invest “their labour into the land” (Rose, 1996: 64; Langton, 1998: 40). *Terra nullius* is particularly damaging to Aboriginal land management strategies such as fire. This is because *terra nullius* defines wilderness on the premise that “if one cannot see traces or signs of one’s own culture in the land, then the land must be ‘natural’” (Rose, 1996: 17). In this way, Aboriginal lands have been categorised as wilderness due to a lack of European economic and technological development (Langton, 1998: 9). Subsequently, a colonial ignorance has developed over how Aboriginal people have used TEKs to shape what seems to Europeans as ‘untouched’ landscape (Langton, 1998: 9). Yet, as the Jawoyn, indigenous to the Nitmiluk National Park in the Northern Territory, protest:

Nitmiluk is not a wilderness [...] It is a land constructed by us over tens of thousands of years—through our ceremonies and ties of kinship, through fire and through hunting” (qtd. in Langton, 1998: 34).

The restrictive conception of ‘wilderness’ therefore obscures the Aboriginal land management practices that have shaped the land into the way it was pre-colonisation (Rose, 1996: 75). In fact, Nitmiluk, and other so-called ‘wildernesses’,

are actually “cultural landscapes”. The World Heritage Convention characterises “cultural landscapes” as the “combined works of nature and man” (qtd. in Pungetti, 2012: 18). This reflects the notion of *autopoiesis*, a term from ecology referring to how “people create and are created by the world in which they live” (Sharman qtd. in Pungetti, 2012: 112; Vogel, 2012).

But why has the falsehood of *terra nullius* come to be accepted as truth? Answering this question engages substantially with the historical treatment of Aboriginal knowledge. Importantly, it enables us to move past the biases that inhibit the implementation of Aboriginal knowledge. In what follows, I discuss how ignorance, objectification, and epistemic injustice have collectively marginalised Aboriginal knowledge. I conclude that *terra nullius* is simply the child of a greater, more malicious bias: the Aboriginal primitive. Yet, in examining these biases, this report does not become an exercise in blame or guilt. Rather, as the historian, Lorna Lippman, eloquently puts it:

Guilt is not a good motivator of action, but knowledge is. Our responsibility therefore is to know and understand what has happened in post-contact times, what is the situation and what are the aspirations of Aboriginal people today, so that we can all join in their demand for justice. (Lippman, 1994: vii)

5: HISTORICAL SILENCES AND EPISTEMOLOGIES OF IGNORANCE

5.1: THE CULT OF FORGETFULNESS

IGNORING HISTORY

One of the three frameworks considered in this report that exposes and undermines biases against TEKs is the epistemology of ignorance. The phrase, ‘epistemology of ignorance’ may strike some readers as contradictory. This is because epistemology, as it is traditionally conceived, is the study of knowledge (Pritchard, 2016: 121). It investigates, among other things, the nature and scope of knowledge, how we come to know, and how knowledge is transmitted. Traditional epistemology conceptualises ignorance as simply a passive failing on the part of the knower, an area they do not yet know. The epistemology of ignorance, however, studies how ignorance can be “constructed, maintained, [and] disseminated” by the prevailing concepts of a historical period, and how it can manifest in institutional amnesia (Tuana, 2004: 194; Proctor, 2008: 8). Applying an epistemology of ignorance to Aboriginal history is a crucial first step in identifying the marginalisation of Aboriginal TEK, for ignorance of history perpetuates ignorance of culture, and, by extension, traditional ecological knowledge.

A commentary on the profound collective ignorance of Aboriginal culture and history is found in “The Great Australian Silence”, the second of the 1968 Boyer Lectures, by the great Australian anthropologist, W.E.H. Stanner. Here, Stanner commented on the “cult of forgetfulness” in Australia regarding the history of Aboriginal people, the Australian Frontier Wars, and the subsequent dispossession and oppression of Aboriginal Australians (2009 [1968]: 189). The Frontier Wars mark the conflict between (primarily) British settlers and the

Indigenous peoples of Australia after European colonisation. While estimates are contentious, it is highly likely that *at least* 100,000 Aboriginal people were killed (Daley, 2014; Evans and Ørsted–Jensen, 2014). Compare this with the total Australian death toll in World War One of approximately 62,000, and it beggars belief that this conflict was largely elided from historical record. As Penny Taylor, head researcher at the Larrakia Nation Aboriginal Corporation, relates, “Australian history books up until the 1970s rarely mentioned Aboriginal people. Instead they featured colonial heroes, explorers, intrepid pioneers, conquest of the interior and the spread of ‘civilisation’” (qtd. in Kinnane, 2015: 6).

Though recognition of the Frontier Wars has increased, in some circles, the ignorance associated with the cult of forgetfulness continues to be perpetuated. In 2014, for example, the then Prime Minister, Tony Abbott, elided thousands of years of Aboriginal occupation, culture, and land management by describing the colonisation of Australia in the following way:

[I]t’s hard to think that back in 1788 it was nothing but bush and that the Marines, and the convicts and the sailors ... must have thought they’d come almost to the Moon. (qtd. in Kinnane, 2015: 4)

But why is Aboriginal history ignored in this way?

5.2: THE HISTORY OF IDEAS BEHIND COLONIALISM

THE ABORIGINAL PRIMITIVE: MOTHER OF NULLIUS

One answer to that question can be found in examining the prevailing justifications of colonialism.¹⁷ A central conclusion from applying an epistemology of ignorance is that the system of ideas involved in colonialism¹⁸ coloured the early

¹⁷ Other answers, unable to be discussed here, but nevertheless relevant, include the nature and construction of national identity, and ideas of collective memory.

¹⁸ Kohn and Reddy define colonialism as “a practice of domination, which involves the subjugation of one people to another”, often through a foreign group holding political, economic and social power over a country’s indigenous population (Kohn and Reddy 2017).

settlers' attitudes and behaviours toward Aboriginal people, obscuring the nuances of their culture, and resulting in the belief that Aboriginal philosophy is primitive and unremarkable. This belief, I conclude, is the parent from which *terra nullius* is born. Together, the biases act as barriers to the study of TEKs.

But what exactly were the ideas guiding the system of colonialism? One influential justification of colonialism was Herbert Spencer's social Darwinism. Social Darwinism asserts a hierarchy between cultures, with supposedly primitive Aboriginal culture on the lowest rung, and sophisticated cultures higher up (Mulvaney, 2005). Borrowing erroneously from Charles Darwin's theory of evolution by natural selection, Spencer proposed a 'survival of the fittest', where primitive cultures were disposed to become extinct, just like genetically inferior organisms. While Spencer's theory has since been proven grossly incorrect, it nevertheless influenced the work of Sir James Frazer, a famous anthropologist. Frazer posited that one barometer of the relative complexity of a culture was its position on a scale ranging from magical beliefs on one extreme to religious beliefs on the other (Hiatt, 2005: 47). Aboriginal culture was thus wrongly seen as a "debased" and "pre-religious and pre-scientific mode of consciousness" (Charlesworth, 2005: 6).

For some empires, the process of colonialism was justified by the combination of social Darwinism with the belief in Christian universalism (Kohn and Reddy, 2017).¹⁹ Christian universalism is a theological concept that posits there is a common humanity under one God (Kinnane, 2015: 12). The natural path of 'progress' was said to occur through a civilising process, where purported primitive cultures are gradually transformed into sophisticated cultures—with

¹⁹ It is important to note that the practice of colonialism has both ostensible and actual justifications. While many of the colonial empires—such as Britain, Belgium, and Portugal—outwardly professed this philosophical rationale for their undertakings, it was, in many cases, simply an attempt to legitimise their economic desires for expansion (Kohn and Reddy, 2017). On a separate point, it would be wrong to imply that all European thinkers were proponents of colonialism and/or social Darwinism. The French philosopher, Denis Diderot, is one notable anti-imperialist.

the paradigm case of a civilised, sophisticated culture being that of the Europeans (Ross et al., 2010: 72). In Governor Lachlan Macquarie's May 4th Proclamation to Aboriginals, for instance, he announces an "anxious Wish to civilise the Aborigines of this Country" (qtd. in Lippman, 1994: 6). This system of thought saw Indigenous peoples as 'noble savages', and early missionaries came with the intent of bringing god to the heathens (Langton, 2000: 18; Lippman, 1994: 11; Mills, 2007).²⁰

ASSUMPTIONS OF INFERIORITY

Two assumptions that came with the paradigm of social Darwinism and the myth of the Aboriginal primitive were:

- i) That Aboriginal people were in an exploitative dependency on the land;
- ii) And that Aboriginal people were static in their cultural evolution, frozen remnants of a time long ago (Langton, 1998: 38).

The first assumption ignored the ways in which Aboriginal people managed the land, and the second underpinned the idea that Aboriginal people were "backwards" and had nothing of philosophical value for the Western world. Together, they contribute to the systematic ignorance and 'subjugation' of Aboriginal philosophy. Spencer and Frazer's work effectively blinded some early colonists from appreciating the distinct and unique characteristics of Aboriginal

²⁰ The phrase "noble savage" is commonly attributed to the writings of the 18th century Enlightenment political philosopher, Jean-Jacques Rousseau, but its first use was in John Dryden's play, *The Conquest of Granada* (1672):

I am as free as Nature first made man,
Ere the base laws of servitude began,
When wild in woods the noble savage ran (1.1. 203-209)

The phrase is a stereotype of Indigenous people that romanticises them as existing in harmony with nature and removed from the corrupting forces of modern civilisation. However, at the same time, the stereotype depicts Indigenous people as simple-minded, backward relics of a bygone age. The myth of the noble savage can therefore enable the subjugation of Indigenous people. As Helen Gardner, Associate Professor of History at Deakin University, writes, "Metaphors of time forged the social relationships of colonialism." (2016)

philosophy, for “whenever a European practice was absent, it was assumed that Indigenous peoples had nothing of value that took its place” (Ross et al., 2010: 72).

Here also we come to see how *terra nullius* is a product of the Aboriginal primitive. As Lippman writes, “Land which was occupied by people who were considered primitive to the Europeans could be acquired simply by settlement” (Lippman, 1994: 168). Because the ‘savages’ have been categorised in a different conceptual category—a debased, inferior human—they are not relevant in determining whether the lands are occupied, in a ‘civilised’ sense (Mills, 2007: 27). Note the views of one Tasmanian MP, King O’Malley: “An aboriginal [sic] is not as intelligent as a Maori. There is no scientific evidence that he is a human being at all” (qtd. in Carr, 2005). Such a categorisation effectively enables the ignoring of a peoples’ history and culture. Indeed, the belief in the primitiveness of Aboriginal people was influential enough to contribute to the Australian human census not recording Aboriginal people until 1971 (Lippman, 1994: 168).

RECOMMENDATION 2: INVEST IN ABORIGINAL TEKS—LINKED TO THE EPISTEMOLOGY OF IGNORANCE

Strategy: Investing in Aboriginal traditional ecological knowledge combats ignorance of these practices and harnesses their potential uses in the Anthropocene.

Means: Two viable options are:

- i) Grant funding to local Aboriginal groups, such as the Taungurung, to collate and implement their traditional ecological knowledge. Knowledge of fire-stick farming was lost by the Taungurung people during colonisation. However, in contemporary times, this knowledge is being reclaimed. Jayco could support these attempts through funding Taungurung rangers to study fire-stick farming practices from neighbouring groups.

- ii) A 'Jayco traditional ecological knowledge scholarship' for masters or PhD candidates from a Victorian university. The student would conduct research into how Aboriginal TEKs could be integrated in one of the wings of Jayco's enterprises.

Outcomes/Benefits: As Marcia Langton observes, "Collaborative projects are not merely annexing traditional systems of knowledge, but rather, interacting with them" (1998: 8). Accordingly, Aboriginal people should lead the development of this knowledge. This would respect their culture, rather than simply co-opting it (Pohlhaus, 2012). Such a strategy would move past the rhetoric commonly heard in public discourse of 'respecting difference' to a place of real redistribution by encouraging and implementing TEKs (Bell, 2001: 465).

6: EXTINCTION AND EPISTEMIC OBJECTIFICATION

6.1: A RATHER UNFAVOURABLE SITUATION

HASLANGER'S THEORY

Though mainstream contemporary Australian society no longer holds onto the ideas of social Darwinism or Christian universalism, the assumption that there is little to learn from Aboriginal culture persists. Epistemic objectification, the second framework of this report, explains why. The treatment of Aboriginal people by early settlers has led to a cycle of social problems such as alcoholism or domestic violence wrongly taken to be inherent to Aboriginal culture and people. This then perpetuates the idea that Aboriginal knowledge is invalid and irrelevant—for its legitimacy would prevent such a situation.

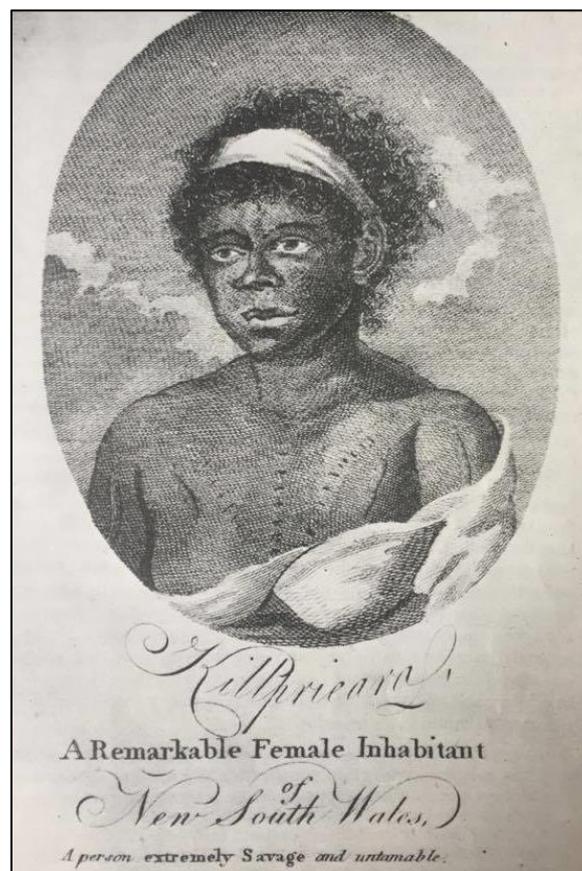
Epistemic objectification, according to the philosopher, Sally Haslanger, is when real or perceived epistemic (knowledge) deficiencies of a group are mistakenly taken to be caused by, or inherent to, their nature (2017: 279). Epistemic objectification is a product of “status quo reasoning”. Status quo reasoning is when statistical norms, such as averages, are taken to be illustrative of a phenomenon’s essence (Haslanger, 2017: 281). Statistical norms can be highly effective tools in certain relatively controlled domains, such as sports analysis. However, in more complex environments with a tremendous number of relevant variables, such as social life, statistical norms do not always reflect the nature of phenomenon *X*, but instead, can be the result of “unfavourable or socially manipulated circumstances” (Haslanger, 2017: 281). In the case of epistemic objectification, this is when epistemic deficiencies—problems with one’s capacity to know, or acquire knowledge—are mistakenly attributed to be inherent to that person or group’s nature.

6.2: EXTINCTION AND PROTECTION

SOOTHING THE DYING PILLOW

The history of colonisation in Australia provides a classic case to demonstrate epistemic objectification, and goes some way to explaining why Aboriginal ecological knowledge has been subjugated. It illustrates how the mistaken belief of Aboriginal inferiority was ingrained into the collective social imagination—the tacit assumptions and stereotypes automatically applied to groups. In the previous section, it was noted that some settlers viewed Aboriginal people as an inferior race to Europeans. On Spencer’s theory, it was, to quote the colonist William Hull, “the design of Providence that the inferior races should pass away before the superior races” (qtd. in Broome, 2005: 99). This projection of prejudice is evident in the caption of the portrait of Killprieara below.

Image 2: Killprieara, ‘A person extremely Savage and untamable’ (from Lippman, 1994: 3).



The subjugation of Aboriginal people during colonisation was taken as evidence of their primitive inferiority. Settlers mistook as inherent in Aboriginal culture the “unfavourable or socially manipulated circumstances” of disease, dispossession, and colonial violence.²¹ These circumstances, notes historian, Richard Broome, reduced the Aboriginal population in Victoria from 10,000 in 1835 to only 1907 in 1853 (2005: 98).

The decimation of the Aboriginal population then led to the policy known as “Soothing the Dying Pillow”, where it was the duty of Europeans to humanely facilitate the inevitable extinction of Aboriginal people (Kinnane, 2015: 13; Lippman, 1994: 12). For example, the journalist, Daisy Bates, in *The Passing of the Aborigines*, states her aim is to “make [the Aborigines] passing easier” (qtd. in Muecke, 1992: 29). In what is known as “the looping effect”, the decline of Aboriginal culture justifies and verifies these prejudices.

STIGMATISING ECOLOGICAL KNOWLEDGE

The Victorian Aboriginal Protection Act of 1869, which aimed to assist ‘soothing the pillow’, is a specific example of how Kulin people were dehumanised. It established a Board of Protection that paternalistically determined where Kulin people could live, whether they were allowed visitors, their availability to work, what wages and rations they received, and whether their children could live with them (TCAC, 2016). The Aborigines Act of 1957 that replaced this board with a Board of Welfare continued to trivialise Aboriginal knowledge. Its function was “to promote the intellectual and physical welfare of aborigines with a view to their assimilation into the general community.” (Aborigines Protection Act [Vic] 1957: 491) The implication here is that Aboriginal ecological knowledge must not,

²¹ Diseases brought by Europeans that Aboriginal people had little immunity to included influenza, tuberculosis, venereal diseases, pneumonia, and smallpox (Kleinert, 2000: 241; Presland, 2010: 90).

therefore, be of any use, if the ‘intellectual and physical welfare’ of Aboriginal people needs assimilation to be promoted. This stigmatises traditional ecological knowledge and its practitioners. In fact, some Aboriginal people who were deemed ‘sufficiently white’ could apply for a certificate of exemption from being classified Aboriginal (Bullimore, 2000). The certificate itself stated:

[Name], by reason of his character and standard of intelligence and development, should be exempt from provision of the Aborigines Act 1934-1939 ... [and] shall cease to be an Aborigine for the purpose of the Act (qtd. in Bullimore, 2000).

The certificate demeans Aboriginal knowledge as something inhibiting admission to a ‘civilised’ community. As Ocholla writes, “This form of marginalisation produced a generation which, for the most part, does not understand, recognise, appreciate, value or use IK [indigenous knowledge].” (2007: 2)

RECOMMENDATION 3: DISPLAY AND DEMONSTRATE ABORIGINAL TEKS IN THE PROPOSED TAUNGURUNG CULTURAL CENTRE—LINKED TO EPISTEMIC OBJECTIFICATION

Strategy: Explaining Aboriginal TEKS in the proposed Taungurung cultural centre improves public understanding of these land and resource management techniques.

Means: Consider devoting a section of the centre to Aboriginal conservationism. Section 2 and 3 of this report offers a useful sketch of the kind of information that could be included.

Outcomes/Benefits: The recommendation undermines the biases inherent in the idea of the Aboriginal primitive, and thereby improves understanding of Aboriginal culture. It inhibits “status quo reasoning” and exposes the flaws of epistemic objectification by highlighting the complexity of Aboriginal philosophy. Furthermore, were research conducted on Taungurung and Kulin TEKS (from recommendation 2) displayed in the cultural centre, then the long-term viability

of the cultural centre increases. As the research would develop new findings over time, displays would not become static, increasing and maintaining public interest.

7: CREDIBILITY AND EPISTEMIC INJUSTICE

7.1: CREDIBILITY, PREJUDICE, AND MISSING OUT

ATTRIBUTION ERRORS

While the times of Protection Acts are gone, the notion of epistemic injustice, developed by the philosopher, Miranda Fricker, highlights the covert ways the “status quo reasoning” of epistemic objectification continues to marginalise Aboriginal knowledge. Epistemic injustice explores how social hierarchies (such as race, class, and gender) influence attributions of epistemic authority—that is, how likely we are to believe certain people. There are two main forms of epistemic injustice: testimonial and hermeneutical. In this report, only one—testimonial injustice—is relevant. This involves an epistemic wrong being committed when a knower is unjustly treated with less credibility than they deserve (Fricker, 2003; Anderson, 2017). The use of the word ‘testimonial’ here has a specific philosophical meaning: it refers to any occasion we transfer knowledge from one to another based on our accounts of an event or particular state of affairs (e.g. telling a colleague what happened to you when the police pulled you over).

To consider the relation of testimonial injustice to Aboriginal knowledge, we need to return to the notion of the collective social imagination discussed above. Within the collective social imagination are shared ideas of identity, defining, for instance, what it is to be a man, or a woman, or a doctor, or sailor (Fricker, 2007: 14). The collective social imagination is intimately connected to the exchange of knowledge through testimony because of our need to use stereotypes as rules of thumb (heuristics) in instantaneous evaluations of a person’s credibility (Fricker, 2007: 17). However, we do not always succeed in making accurate evaluations. A credibility attribution can become dysfunctional when a credibility excess (e.g. from a posh, clipped accent) or a credibility deficit (e.g. from perception of one’s race) are undeserved (Fricker, 2007: 17). Testimonial injustice, however, is not

concerned with accidental attribution errors, but with identity prejudices that systematically result in unfair credibility deficits (Fricker, 2007: 27; Grasswick, 2017). This is because these are the attribution errors which are most detrimental to a knower.

7.2: THE SILENCING OF THE INDIGENOUS VOICE

The neuroscience of prejudice is enlightening on why testimonial injustice can be so damaging toward traditional ecological knowledge. Prejudices are “evaluations or affective responses towards a social group and its members based on preconceptions.” (Amodio, 2014: 670) As egalitarian norms become more entrenched in contemporary Western society, explicit prejudices have become more covert and unconscious (Amodio, 2014: 670). Prejudices can operate not just at the level of conscious belief systems, but also at the “level of collective social imagination”—which means they can influence behaviour *despite* our beliefs (Fricker, 2007: 15). This explains how Aboriginal knowledge can be subjugated tacitly.

Latent, subconscious identity-prejudices, springing from the mistaken bias of the Aboriginal primitive, illuminate why Aboriginal TEKs, when voiced by Aboriginal people, are less likely to be believed (Alcoff, 2010: 128). As Ross et al. write, “[i]t is difficult for most environmental scientists and technocrats to accept the premise that so-called primitive or underdeveloped peoples possess knowledge of scientific worth” (2010: 80). An example of how Aboriginal assertions of TEK receive less credibility than they deserve is evident in the writings of the journalist, David Barnett. On the Aboriginal use of fire, for instance, Barnett is dismissive: “Aborigines obliterated the flora and fauna, impoverishing the soil and desiccating the continent” (1998). It is not difficult to see the relationship of Barnett’s scientifically inaccurate comments to the flawed assumption of the Aboriginal primitive, according to which, Aboriginal people lived in exploitative dependence upon the land. Diatribes such as Barnett’s fuel testimonial injustice

against traditional ecological knowledge. This is evident in the statements of an Aboriginal NSW National Parks and Wildlife Services employee: “I got this feeling that there was an assumption, you know, that Aboriginal people didn't have the capacity to do this burning...[but] a lot of [the elders] are aware and have an understanding of how the fire management should take place [...] we're not dumb. We definitely know country.” (qtd. in Eriksen and Hankins, 2014: 1295).

But it may be asked here whether a study of epistemic injustice is trivial. That is, aren't the *real* problems facing Aboriginal people alcoholism, unemployment, sexual abuse, and poor health? (Charlesworth, 2005: 21) While these are indeed worthy and urgent crises needing solutions, there is a growing recognition that a better understanding of Aboriginal culture—one that permeates through healthcare and society more generally—assists in ameliorating these issues. As Vicki Grieves argues: “The beginning of real change in Australia will be an appreciation of the inherent value of Aboriginal philosophy”, for it is the basis of their worldview, intimately tied to their wellbeing, and has been found to improve health outcomes (Grieves, 2009: 39). This requires we listen to the nuances of Aboriginal culture. What results from testimonial injustice, however, is “inaudibility”: when individuals or groups are discouraged from voicing their views (Hornsby, 1995: 127). Inaudibility has far-reaching consequences precisely because we gather a tremendous amount of knowledge via testimony. The diversity of perspectives that are silenced or excluded through epistemic injustice mean we lose important knowledge contributions—such as Aboriginal TEKs—that are not only valuable to our communal life, but also result in tangible change in those supposedly *real* problems too (Daukas, 2006: 116; Grieves, 2009).

RECOMMENDATION 4: HOST CONFERENCES ON TRADITIONAL ECOLOGICAL KNOWLEDGE—LINKED TO EPISTEMIC INJUSTICE

Strategy: Listen openly to Aboriginal people speak about their knowledge to reduce the stigmatisation of TEK.

Means: Jayco could run forums or conferences at one of its facilities in the Nagambie region, such as Michelton Winery, to locate and promote traditional ecological knowledge.

Outcomes/Benefits: Recognising epistemic injustice fights against both epistemic objectification and the associated issue of cultural imperialism. Groups victim to cultural imperialism are viewed through inaccurate prejudices that undermine their ability to properly express who they are, and how they see the world, from their perspective (McConkey, 2004: 202; Mills, 2007: 31). Much Aboriginal traditional ecological knowledge is held by community elders. A prolonged period of epistemic injustice and silencing can result in a reluctance to communicate traditional ecological knowledge. If Aboriginal traditional ecological knowledge is not passed onto the next generation, then important knowledge will be lost. Holding conferences or other such forums would clearly communicate to the community at large that Aboriginal ecological knowledge is valued, going some way to rectify the epistemic injustices faced by traditional knowledge holders.

8: MOVING FORWARD: IDEAS OF THE ANTHROPOCENE

8.1: THE PLACE OF ABORIGINAL ECOLOGICAL THOUGHT

What, then, is the place of Aboriginal philosophy in the Anthropocene? Two clear functions have emerged in this report. The first is how Aboriginal custodianships of nature model the kinds of narratives necessary to take responsibility for the world around us, and consider the impact our actions will have on generations to come. The dependence of humanity on the natural world is lucid in Aboriginal thought. This is exemplified in the genealogical bonds that intertwine humans with the flora and fauna, bonds from which an attitude of respect arises and guides behaviour towards the environment. These narratives contrast forcefully with tacit attitudes towards nature in mainstream society today—as something we ought to conquer, control, and harvest for our own ends.

The second function, I have argued, is the untapped potential of traditional ecological knowledge in contemporary sustainability. While it is logically fallacious to suggest that TEKs are valid solely because they have been used for many years, it is a separate and valid point to suggest that Aboriginal land management practices are deserving of study, especially considering their effectiveness in research completed thus far. As the anthropologist, Deborah Bird Rose, writes:

The notion of caring for country is quintessentially Aboriginal. Nowhere in the world is there a body of knowledge built up so consistently over so many millennia. Nowhere are there so many living people who continue to sustain that knowledge and engage in associated land management practices. (Rose, 1996: 84)

Indeed, studying Aboriginal traditional ecological knowledge allows the wheel to turn full circle: from lingering notions of primitivism, Aboriginal culture can now be seen as containing progressive and innovative techniques for conservation (Pungetti, Oviedo, and Hooke, 2012: 3). My recommendations attempt to redress

the ignorance and undervaluation of Aboriginal TEKs. Overcoming such ignorance benefits Aboriginal people—whose cultural heritage and philosophy is preserved, recognised, and appreciated—and the wider Australian population—in their quest for sustainability. While by no means a silver bullet, Aboriginal ecological knowledge is therefore well and truly a valuable resource for the Anthropocene.

9: A SUMMARY OF RECOMMENDATIONS

AN OVERVIEW

RECOMMENDATION 1: DEVELOP INDIGENOUS CULTURAL IMMERSIONS—LINKED TO THE ABORIGINAL APPROACH TO THE LAND

RECOMMENDATION 2: INVEST IN ABORIGINAL TEKS—LINKED TO THE EPISTEMOLOGY OF IGNORANCE

RECOMMENDATION 3: DISPLAY AND DEMONSTRATE ABORIGINAL TEKS IN THE PROPOSED TAUNGURUNG CULTURAL CENTRE—LINKED TO EPISTEMIC OBJECTIFICATION

RECOMMENDATION 4: HOST CONFERENCES ON TRADITIONAL ECOLOGICAL KNOWLEDGE—LINKED TO EPISTEMIC INJUSTICE

Mahendra Chitrrarasu

mahendra.chitrrarasu@student.adelaide.edu.au

University of Adelaide, November 2017

8389 words

APPENDIX 1: INFORMATION ON ETHICS

All interview participants were provided with and signed a consent form outlining the nature and scope of the project and its aims and intended outcomes. It provided opportunity for participants to assume anonymity, if they wished, and clearly articulated the voluntary nature of participation.

REFERENCE LIST

- Alcoff LM. (2010) Epistemic Identities. *Episteme* 7: 128-137.
- Almeida F. (2017) On Aboriginal Cultural Heritage and Conservation.
Interviewed by Chitrrarasu M. Taungurung Clans Aboriginal Corporation,
Broadford, Victoria.
- Amodio DM. (2014) The neuroscience of prejudice and stereotyping. *Nature Review Neuroscience* 15: 670-682.
- Anderson E. (2017) Feminist epistemology and philosophy of science. In: Zalta EN (ed) *Stanford Encyclopedia of Philosophy*. Spring 2017 ed.:
Metaphysics Research Lab, Stanford University.
- Arola A. (2011) “Native American Philosophy”. In: Garfield JL and Edelglass W (eds) *The Oxford Handbook of World Philosophy*. Oxford, Oxford University Press, 562-573.
- Barnett, D. (1998) *Fire stick farmers are killing Kakadu*. Financial Review.
Accessed 8 November 2017. Available at:
http://savanna.cdu.edu.au/publications/savanna_links_issue5.html?tid=27683
- Barwick D. (1984) Mapping the Past: An Atlas of Victorian Clans 1835-1904.
Aboriginal History 8: 100-131.
- Bell D. (2001) “Respecting the Land: Religion, Reconciliation, and Romance—An Australian Story”. In: Grim J (ed) *Indigenous traditions and ecology: the interbeing of cosmology and community*. Harvard University Press for the Center for the Study of World Religions, Harvard Divinity School, 465-484.
- “Women’s Business: What is it?”. In: Charlesworth M, Morphy H and Dussart F. (eds) *Aboriginal religions in Australia: an anthology of recent writings*. Aldershot, Hants, England.

- Berkes F. (1999) *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. London, Taylor & Francis.
- Berndt RM. (1979) A Profile of Good and Bad in Australian Aboriginal Religion. *Australian and New Zealand Theological Review* 12.
- Brennan F. (2005) "Land Rights: The Religious Factor". In: Charlesworth M, Morphy H and Dussart F. (eds) *Aboriginal religions in Australia: an anthology of recent writings*. Aldershot, Hants, England.
- Broome R. (2005) *Aboriginal Victorians: A History Since 1800*. Allen & Unwin.
- Bullimore, K. (2000) *Racism in Australia: 1788 to today*. Green Left Weekly. Accessed 8 November 2017. Available at: <https://www.greenleft.org.au/content/racism-australia-1788-today>
- Callicott JB. (1994) *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback*. University of California Press.
- Carr, A. (2005) *Electoral Archive: The Fifth Parliament*. Accessed 9 November 2017. Available at: <https://web.archive.org/web/20050717093104/http://psephos.adam-carr.net/countries/a/australia/1913/summary1913.txt>
- Castree N. (2016) An official welcome to the Anthropocene epoch - but who gets to decide it's here? *The Conversation*. Accessed 22 October 2017. Available at: <https://theconversation.com/an-official-welcome-to-the-anthropocene-epoch-but-who-gets-to-decide-its-here-57113>
- Charlesworth M, Morphy H, and Dussart F. (2005) *Aboriginal religions in Australia: an anthology of recent writings*. Aldershot, Hants, England.

Clark ID. (1990) *Aboriginal Languages and Clans: An Historical Atlas of Western and Central Victoria, 1800-1900*. Department of Geography and Environmental Science, Monash University.

Code LB. (1981) Is the sex of the knower epistemologically significant? *Metaphilosophy* 12: 267-276.

—. (1987) Second Persons. *Canadian Journal of Philosophy* 17: 357-382.

Commonwealth of Australia. (1937) *Aboriginal Welfare: Initial Conference of Commonwealth and State Aboriginal Authorities 1937*. National Library of Australia. Available at: <http://nla.gov.au/nla.obj-52771316/view?partId=nla.obj-88456768#page/n0/mode/1up>

—. (1957) *Aborigines Protection Act [Vic]*. Australia.

Cooperative Research Centre for Tropical Savannas Management. (2009) *Fire management and greenhouse gas emissions*. Available at: http://savanna.cdu.edu.au/information/greenhouse_emissions.html.

CSIRO. (n.d.) *West Arnhem Land Fire Abatement Project*. Available at: <https://www.csiro.au/en/Research/LWF/Areas/Ecosystems-biodiversity/Managing-landscapes-for-biodiversity/Fire-ecology/Burning-emissions/WALFA>.

Department of Sustainability, Environment, Water, Population and Communities. (2012) *One Place, Many Stories: Our Country*. Commonwealth of Australia.

Daukas N. (2006) Epistemic trust and social location. *Episteme* 3: 109-124.

Environmental Protection Agency. n.d. *Greenhouse Gas Equivalencies Calculator*. United States Environmental Protection Agency. Accessed 22 October 2017. Available at: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

- Dingle S. (2014) "Tony Abbott names white settlement as Australia's 'defining moment', remark draws Indigenous ire". ABC News Online. Accessed 2 November 2017. Available at: <http://www.abc.net.au/news/2014-08-30/pm-comment-on-defining-moment-angers-indigenous-groups/5707926>
- Eriksen C and Hankins DL. (2014) The retention, revival, and subjugation of Indigenous fire knowledge through agency fire fighting in eastern Australia and California. *Society and Natural Resources* 27: 1288-1303.
- Foucault M. (1980) *Power/Knowledge: Selected Interviews and Other Writings*. New York, Pantheon Books.
- Fricker M. (2007) *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford, Clarendon.
- . (2003) Epistemic Justice and a Role for Virtue in the Politics of Knowing. *Metaphilosophy* 34: 154-173.
- Gammage, B. (2011) *The biggest estate on earth: how Aborigines made Australia*. Crows Nest, Allen & Unwin.
- Grieves V. (2009) *Aboriginal spirituality: Aboriginal philosophy, the basis of Aboriginal social and emotional wellbeing*. Casuarina, N.T.: Cooperative Research Centre for Aboriginal Health.
- Grincheva N. (2013) Scientific Epistemology versus Indigenous Epistemology: Meanings of 'Place' and 'Knowledge' in Epistemic Cultures. *Logos & Episteme* 4: 145-159.
- Hayden T. (1994) "Preface". In Callicott JB. *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback*. University of California Press.

- Haslanger S. (2017) “Objectivity, Epistemic Objectification, and Oppression”. In: Kidd IJ and Pohlhaus G (eds) *The Routledge Handbook of Epistemic Injustice*. Routledge.
- Healy, L. (2011) *Taungurung Liwik-nganjin-al Ngula-dhan Yaawinbu Yananinon*. Melbourne, Australia, Victorian Aboriginal Corporation for Languages.
- . Taungurung and Kulin Nation spirituality. Interviewed by Chittrarasu M. Taungurung Clans Aboriginal Corporation, Broadford, Victoria.
- Hornsby J. (1995) Disempowered Speech. *Philosophical Topics* 23: 127-147.
- Hume L. (2002) *Ancestral power: the dreaming, consciousness, and Aboriginal Australians*. Carlton South, Victoria, Melbourne University Press.
- Isaacs J. (1980) *Australian Dreaming: 40,000 Years of Aboriginal History*. Ure Smith Press.
- James S. (2015) *Environmental Philosophy: An Introduction*. Wiley. Online.
- Kelbessa W. (2011) “Indigenous Environmental Philosophy”. In: Garfield JL and Edelglass W (eds) *The Oxford Handbook of World Philosophy*. Oxford, Oxford University Press, 574-581.
- Kleinert S and Neale M. (2000) *The Oxford companion to Aboriginal art and culture*. Melbourne, Oxford University Press.
- Kinnane S. (2015) “A Long slow dance: The nation’s history.” In: Price K (ed) *Knowledge of Life: Aboriginal and Torres Strait Islander Australia*. Cambridge University Press.
- Kohn M and Reddy K. (2017) Colonialism. In: Zalta EN (ed) *Stanford Encyclopedia of Philosophy*. Fall 2017 ed.: Metaphysics Research Lab, Stanford University.

- Korff J. (2017) Aboriginal Fire Management. *Creative Spirits*. Accessed 10 November 2017. Available at:
<https://www.creativespirits.info/aboriginalculture/land/aboriginal-fire-management>
- Langton M. (1998) *Burning Questions: Emerging Environmental Issues for Indigenous Peoples in Northern Australia*, Darwin. Centre for Indigenous Natural and Cultural Resource Management.
- . (2005) “Sacred Geography”. In: Charlesworth M, Morphy H and Dussart F. (eds) *Aboriginal religions in Australia: an anthology of recent writings*. Aldershot, Hants, England.
- . (2000) “Religion and art from colonial conquest to post-colonial resistance”. In: Kleinert S and Neale M (eds) *The Oxford companion to Aboriginal art and culture*. Melbourne, Oxford University Press.
- Lehman G. (2000) “Tarnier the kangaroo: A source of Palawa spirituality”. In: Kleinert S and Neale M (eds) *The Oxford companion to Aboriginal art and culture*. Melbourne, Oxford University Press.
- Lippmann L. (1994) *Generations of Resistance: Mabo and Justice*. Cheshire, Longman.
- Maffie J. (2003) “To Walk in Balance: An Encounter between Contemporary Western Science and Conquest-era Nahua Philosophy.” In: Figueroa R and Harding SG (eds) *Science and Other Cultures: Issues in Philosophies of Science and Technology*. New York and London, Routledge.
- Marshall C. (2017) Working with Aboriginal people. Interviewed by Chittrarasu M. Taungurung Clans Aboriginal Corporation, Broadford, Victoria.
- Mason R. (2011) Two Kinds of Unknowing. *Hypatia* 26: 294-307.

- McConkey J. (2004) Knowledge and acknowledgement: 'epistemic injustice' as a problem of recognition. *Politics* 24: 198-205.
- Melbourne Museum. (2017) Bunjilaka: First Nations Cultural Centre.
- Mills CW. (2007) "White Ignorance". In: Nancy Tuana and Shannon Sullivan (ed) *Race and Epistemologies of Ignorance*. State University of New York Press.
- Monk S. (2017) Taungurung Culture and Conservationism. Interviewed by Chitrarasu M. Taungurung Clans Aboriginal Corporation, Broadford, Victoria.
- Moreton-Robinson A. (2017) Senses of Belonging. *ABC*. Accessed on 24 August 2017. Available at:
<http://www.abc.net.au/religion/articles/2017/02/21/4623659.htm>
- Morton J. (2005) "Aboriginal Religion Today". In: Charlesworth M, Morphy H and Dussart F. (eds) *Aboriginal religions in Australia: an anthology of recent writings*. Aldershot, Hants, England.
- . "Aboriginal Religion Today". In: Kleinert S and Neale M (eds) *The Oxford companion to Aboriginal art and culture*. Melbourne, Oxford University Press.
- Muecke S. (1992) *Textual spaces: aboriginality and cultural studies*, Kensington, New South Wales University Press.
- . (2011) Australian Indigenous Philosophy. *CLCWeb: Comparative Literature and Culture* 13.
- Mulvaney J. (2005) "Baldwin Spencer and F.J. Gillen". In: Charlesworth M, Morphy H and Dussart F. (eds) *Aboriginal religions in Australia: an anthology of recent writings*. Aldershot, Hants, England.

- Newell J. (2017) Water Thinking: Caring for oceans and sharing connections in a time of climate crisis. *H2O: Life and Death*. University of Adelaide, J.M. Coetzee Centre for Creative Practice.
- Ocholla, N. (2007) Marginalized Knowledge: An Agenda for Indigenous Knowledge. Development and Integration with Other Forms of Knowledge. *International Review of Information Ethics* 7: 1-10.
- Parmesan C and Yohe G. (2003) A globally coherent fingerprint of climate change impacts across natural systems. *Nature* 421: 37-42.
- Paulson G. *Indigenous Spirituality*. Accessed 20 August 2017. Available at: <http://www.australianstogether.org.au/stories/detail/indigenous-spirituality>.
- Pohlhaus G. (2012) Relational Knowing and Epistemic Injustice: Toward a Theory of Willful Hermeneutical Ignorance. *Hypatia* 27: 715-735.
- Presland G. (2010) *First People: The Eastern Kulin of Melbourne, Port Phillip and Central Victoria*. Museum Victoria Publishing.
- Price K. (2015) *Knowledge of Life: Aboriginal and Torres Strait Islander Australia*. Cambridge University Press.
- Pritchard D. (2016) *What is this thing called philosophy?* Routledge.
- Proctor R and Schiebinger LL. (2008) *Agnotology: The Making and Unmaking of Ignorance*. Stanford, Stanford University Press.
- Pungetti G, Oviedo G and Hooke D. (2012) *Sacred Species and Sites: Advances in Biocultural Conservation*. Cambridge, Cambridge University Press.
- . (2012) "Sacred species and sites: dichotomies, concepts and new directions in biocultural diversity conservation". In: Gloria Pungetti, Gonzalo Oviedo, Della Hooke (ed) *Sacred species and sites: advances in biocultural conservation*. Cambridge, Cambridge University Press, 13-27.

- Rose DB. (1984) "Consciousness and responsibility in an Australian Aboriginal religion". *Paper prepared for the Australian Association for the Study of Religion 9th Annual Conference*. Canberra.
- . (1996) *Nourishing terrains: Australian Aboriginal views of landscape and wilderness*. Canberra, Australian Heritage Commission.
- . (2000) *Dingo Makes Us Human: Life and Land in an Australian Aboriginal Culture*. Cambridge University Press.
- . (2005) "Life and Land in Aboriginal Australia". In: Charlesworth M, Morphy H and Dussart Fo (eds) *Aboriginal religions in Australia: an anthology of recent writings*. Aldershot, Hants, England.
- . (2000) "The Power of place". In: Kleinert S and Neale M (eds) *The Oxford companion to Aboriginal art and culture*. Melbourne, Oxford University Press.
- Ross A, Sherman KP, Snodgrass JG, Delcore HD, Sherman R. (2010) *Indigenous peoples and the collaborative stewardship of nature: knowledge binds and institutional conflicts*. Walnut Creek, Left Coast Press.
- Rowley CD. (1972) *The destruction of Aboriginal society*. Ringwood, Penguin Books Australia.
- Shaw AGL. (2003) *A History of the Port Phillip District: Victoria Before Separation*. Melbourne University Publishing.
- Stanner WEH. (2009) *The Dreaming and Other Essays*. Black Inc Publishing.
- Steyn M. (2012) The ignorance contract: recollections of apartheid childhoods and the construction of epistemologies of ignorance. *Identities* 19: 8-25.
- Stockton E. (1995) *The Aboriginal Gift: Spirituality for a Nation*. Blue Mountain Education and Research Trust.

- Taungurung Clans Aboriginal Corporation (TCAC). (2016) *Internal Documentary*. Broadford, Victoria.
- . n.d. *Early Ethno-historical Work*. Broadford, Victoria.
- Thompson, S. (2011) *1699 William Dampier's Mariner's Compass*. Migration Heritage Centre NSW. Accessed 7 November 2017. Available at: <http://www.migrationheritage.nsw.gov.au/exhibition/objectsthroughtime/1699-william-dampier-mariners-compass/index.html>
- Townley C. (2006) Toward a Reevaluation of Ignorance. *Hypatia* 21: 37-55.
- Tuana N. (2004) Coming to Understand: Orgasm and the Epistemology of Ignorance. *Hypatia* 19: 194 - 232.
- . (2006) The Speculum of Ignorance: The Women's Health Movement and Epistemologies of Ignorance. *Hypatia* 21: 1-19.
- Tuana N and Sullivan S. (2006) Introduction: Feminist Epistemologies of Ignorance. *Hypatia* 21: vii-ix.
- Ungunmerr MR. (2017) To be listened to in her teaching: Dadirri: Inner Deep Listening and Quiet Still Awareness. *EarthSong Journal: Perspectives in Ecology, Spirituality and Education* 3: 14-15.
- Victorian Aboriginal Corporation for Languages (VACL). (2014) *Nyernila: Creation Stories*. Southbank, Arts Victoria.
- Vogel S. (2012) Alienation and the Commons. *Ethical Adaptation to Climate Change: Human Virtues of the Future*. MIT Press.
- Whitt LA, Grieves V, Norman W, Roberts M. (2003) Indigenous Perspectives. In: Jamieson D (ed) *A Companion to Environmental Philosophy*. Blackwell.
- Woinarski J, Burbidge A and Harrison P. (2015) *A review of the conservation status of Australian mammals*. *THERYA* 6: 155-166.

- Yibarbuk D. (1998) “Notes on traditional use of fire on upper Cadell River.” In Langton M. *Burning Questions: Emerging Environmental Issues for Indigenous Peoples in Northern Australia*. Darwin, Centre for Indigenous Natural and Cultural Resource Management.
- . (2009) *Fighting Carbon with Fire*. United Nations University. Accessed 15 October 2017. Available at: <https://ourworld.unu.edu/en/fighting-carbon-with-fire>