

**EARTH JURISPRUDENCE: PRIVATE PROPERTY
AND EARTH COMMUNITY**

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A THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

ADELAIDE LAW SCHOOL
THE UNIVERSITY OF ADELAIDE

MAY 2011

DEDICATED TO MY BEAUTIFUL SOULMATE SHANI AND DANCING
DAUGHTER FREYA.

AND TO THE LIFE AND WORK OF WILLIAM 'THOMAS' BERRY (1914-2009)

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ABSTRACT

The central argument of this thesis is that the institution of private property reflects an anthropocentric worldview and is contributing to the current environmental crisis. Drawing on the description of law as a mirror of society, it considers how our idea of law and the institution of private property can adapt to reflect the recent scientific description of human beings as interconnected and mutually dependant on nature. It advocates a paradigm shift in law from anthropocentrism to the concept of Earth community.

The thesis first provides an example laws anthropocentrism by exploring the legal-philosophical concept of private property. Private property is advanced over other legal concepts, because it plays a key role in governing human interactions with the environment and because it contains some of law's main messages about nature and our place within it. The thesis analyses three main influences on the development of private property from the humanism of antiquity, the scientific revolution and the influence of liberal political philosophy. It concludes that the dominant rights-based theory of private property is anthropocentric and facilitates environmental harm.

The second component of the thesis explores contemporary scientific evidence supporting the ecocentric concept of Earth community. This concept argues that human beings are deeply connected and dependent on nature. It also describes the Earth as a community of subjects and not a collection of objects. Assuming that the social sphere is an important source for law, this thesis considers how a paradigm shift from anthropocentrism to ecocentrism can influence the development of legal concepts. To catalyse this shift, it considers the 'new story' proposed by cultural historian and theologian Thomas Berry. This story describes contemporary scientific insights such as interconnectedness in a narrative form

Third, the thesis uses the alternative paradigm of Earth community to articulate an emerging legal philosophy called Earth Jurisprudence. It describes Earth Jurisprudence as a theory of natural law and advocates for the recognition of two kinds of law, organised in a hierarchical relationship. At the apex is the Great Law, which represents the principle of Earth community. Beneath the Great Law is Human Law, which represents rules articulated by human authorities, which are consistent with the Great Law and enacted for the common good of the comprehensive Earth Community. In regard to the interrelationship between these two legal categories, two points are crucial. Human Law derives its legal quality from the Great Law and any law in contravention of this standard is considered a corruption of law and not morally binding on a population.

Finally, the thesis constructs an alternative concept of private property based on the philosophy of Earth Jurisprudence. It describes private property as a relationship between members of the Earth community, through tangible or intangible items. To be consistent with the philosophy of Earth Jurisprudence, the concept of private property must recognise human social relationships, include nonreciprocal duties and obligations; and respond to the 'thing' which is the subject matter of a property relationship. A theory of private property that overlooks any of these considerations is defective and deserves to be labelled such.

ACKNOWLEDGEMENTS

It has been a profound honour and privilege to dedicate the last three years to writing a PhD dissertation. I am left with an overwhelming feeling of love and support.

I would first like to express gratitude to my beautiful wife Shani and daughter Freya. Many times in the last three years my writing has kept me away from parties, concerts, trips to the beach and even breakfast! You have both always given me support, understanding and love. For all of this I am more grateful than I can put into words. Thank you both for your love and for giving me hope in people.

Thank you to my parents, Jenny and Terry Burdon for never telling me who to be or what to do, but providing the space and support for me to grow into my own person. Thank you also for teaching me respect, compassion and empathy. Thank you also to my siblings Robert and Katie Burdon and mother in law Pru Davey.

To my supervisors, Paul Babie and Alex Reilly. Thank you both for the *many* hours you have both spent reading, critiquing and supporting my thesis. You have both been wonderful supervisors, role models and friends over my candidature and provided me the foundation for an academic career. Thank you.

I have also been fortunate to receive support from many friends over this period. Thank you kindly to Shani Burdon, Sam Alexander and Claire Nettle for generously reading the complete draft of this thesis. Thank you also to Mary Heath for reading and providing critical comments on an earlier draft of chapter four. Finally, thank you to members of the University of Adelaide thesis writing group Adam Webster, Vanessa While, Mark Giancaspro, Beth Norseworthy, Matthew Stubbs and Gabrielle Appelby.

Finally, I would like to acknowledge with gratitude the support I received from the FA Joyner Scholarship in Law. This scholarship made the writing of this thesis possible by providing financial support to my family for almost three years. Thank you also to the University of Adelaide Law School for providing resources and support for my research. I look forward to a long and meaningful academic career at this place of learning.

DECLARATION

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

Some of the arguments in this thesis have been developed through publication during the course of research and writing. Parts of chapter two were first published in:

‘What is Good Land Use? From Rights to Responsibilities’ (2010) 34(3) *University of Melbourne Law Review* (forthcoming)

The concept of Earth Community and Thomas Berry’s thoughts on shifting culture in Chapter Three was first published in:

‘The Jurisprudence of Thomas Berry’ (2011) 11 *Worldviews: Global Religions, Culture, and Ecology* (forthcoming)

‘The Ecozoic Era’ in Peter Burdon (ed), *An Invitation to Wild Law* (Wakefield Press, 2011)

The exploration of Earth Jurisprudence as a legal philosophy in Chapter Four was first published in:

‘Thomas Berry and Natural Law’ (2011) *Barry University: E-Symposium: Continuing the Great Work: A Tribute to Thomas Berry* (forthcoming)

‘The Jurisprudence of Thomas Berry’ (2011) 11 *Worldviews: Global Religions, Culture, and Ecology* 4

‘Wild Law: The Philosophy of Earth Jurisprudence’ (2010) 35(2) *Alternative Law Journal* 62

‘The Great Jurisprudence’ in Peter Burdon (ed), *An Invitation to Wild Law* (Wakefield Press, 2011)

The evolution of private property discussed in Chapter Five was also published in:

‘What is Good Land Use? From Rights to Responsibilities’ (2010) 34(2) *University of Melbourne Law Review* (forthcoming)

‘Native Title and the Clash of Civilization’ (2008) 104 *Chain Reaction Magazine* 34

‘The Rights of Nature: Reconsidered’ (2010) 49 *Australian Humanities Review* 69

‘Rights of Nature: The Theory’ (2011) 1 *IUCN Environmental Law Journal* <http://www.iucnael.org/en/component/docman/doc_download/660-earth-rights-the-theory.html>

A number of the ideas were explored and discussed at the presentation of unpublished papers at:

'Rights of Nature: Theory & Practice' (University of Adelaide, *Staff Seminar*, 19 November 2010)

'The Rights of Nature in Ecuador' (Environmental Defenders Office, *Annual General Meeting*, 26 October 2010)

'Rights of Nature: Developments' (Flinders University, *Staff Seminar*, Adelaide 6 October 2010)

'Wild Law in Australia and Environmental Jurisprudence' (University of Wollongong, *Wild Law and Legal Epistemologies*, Wollongong, 26 July 2010)

'Wild Law: An invitation to Environmental Jurisprudence' (University of New South Wales, *Australasian Philosophy Association*, 8 July 2010)

'Wild Law and the Authority of Law' (Flinders University, *Students of Sustainability*, Adelaide, 5 July 2010)

'Wild Law and Biodiversity' (Paper presented at *Biodiversity & the Law: Building Blocks for Life*, Adelaide, 3 May 2010)

'An Introduction to Wild Law' (Paper presented at Flinders University Staff Seminar, Adelaide, 25 April 2010)

'What is Good Land Use? From Rights to Obligations' (Paper presented at *From Plains to Plate, the Future of Food in South Australia*, Adelaide, 12 February 2010)

'Thomas Berry and a New Jurisprudence' (Paper presented at *Parliament of World Religions*, Melbourne, 7 December 2009)

'Rights of Nature and Human Domestication' (Paper presented at *Wild Law: Australia's First Conference on Earth Jurisprudence*, Adelaide, 17 October 2009)

'What is Earth Jurisprudence?' (Paper presented at *Wild Law: Australia's First Conference on Earth Jurisprudence*, Adelaide, 16 October 2009)

'Native Title and the Clash of Civilisations' (Paper Presented at *Law Without Borders*, University of British Columbia, Vancouver, 2 May 2008)

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Signed

Date

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Declaration from 'Wild Law' - Australia's First Conference on Earth Jurisprudence

We the participants of Wild Law, declare that the perceived separation between nature and human beings is a fundamental cause of the current environmental crisis. Our law reflects this in treating nature as property and by restricting rights to human subjects.

We assert that law needs to transition from an exclusive focus on human beings and recognise that we exist as part of a broader earth community. We recognise that the universe is composed of subjects to be communed with, not objects to be used. Each component member of the universe is thus capable of having rights.

We commit to evolving law so that it protects the natural world from destruction and cultivating Wild Laws that are consistent with the philosophy of Earth Jurisprudence.¹

¹ On 16-18 October 2009, 80 people including scientists, students, lawyers, government workers, activists, educators and other concerned individuals from all over Australia and the world gathered in Woodhouse, Piccadilly, South Australia for 'Wild Law', Australia's first conference on Earth Jurisprudence. See further <<http://www.adelaide.foe.org.au/earth-jurisprudence/>>.

CHAPTER ONE

INTRODUCTION

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I. THESIS

The present legal system is supporting exploitation rather than protecting the natural world from destruction by the relentless industrial economy.¹

This thesis argues that the institution of private property is anthropocentric and is contributing to the present environmental crisis. Anthropocentrism refers to the tendency of human beings to regard themselves as separate to nature and nature as existing for human use and exploitation. The dominant rights-based interpretation of private property reflects this worldview by entrenching the idea of human dominion over nature. Under this construction, nature does not have inherent value and is merely the subject matter of a human property relationship. This conception also separates humans from the environment by describing private property as a relationship among people and not a relationship between people and place. Finally, private property promotes individual preference satisfaction above obligations and responsibilities to the human and non-human community.

Drawing on the interpretation of law as a mirror of society,² this thesis considers methods for catalysing a paradigm shift in Western culture from anthropocentrism to the ecocentric concept of Earth community. This concept recognises that human beings are deeply interconnected and dependent on nature. It also argues that the Earth is a community of subjects and not a collection of objects. To shift the institution of private property toward the ecocentric paradigm, this thesis articulates an emerging legal philosophy called Earth Jurisprudence. Earth Jurisprudence is described as a theory of Natural Law and seeks to reconcile human law with principles or laws of nature.

¹ Thomas Berry, 'Legal Conditions for Earth's Survival' in Mary-Evelyn Tucker (ed), *Evening Thoughts: Reflections on Earth as Sacred Community* (2006) 107.

² See Kermit Hall, *The Magic Mirror: Law in American History* (2009) 1.

Further, it positions the concept of Earth community as a bedrock standard and measure for human law.

Using the theory of Earth Jurisprudence as a foundation, this thesis then outlines an alternative ecocentric description of private property. This approach presents a reformist agenda and seeks to give private property radically new content. It describes private property as a relationship between members of the Earth community, through tangible or intangible items. To be consistent with the philosophy of Earth Jurisprudence, it argues that the concept of private property must shift from individualism to recognise human social relationships; include nonreciprocal duties and obligations; and respond to the 'thing' that is the subject matter of a property relationship. A theory of private property that overlooks any of these considerations is defective and deserves to be labelled such.

The introduction contains three further sections. Part II explains the motivation for the inquiry and explains why Earth Jurisprudence is the vehicle used to theorise how private property can be reformed. It also outlines the fundamental themes that reoccur throughout the thesis. Part III reviews the existing literature in the areas of Earth Jurisprudence, environmental philosophy, property theory and legal theory. Finally, Part IV outlines the structure of the thesis.

II. THE INQUIRY

Thomas Berry (1914-2009) was a theologian and cultural historian.³ His observation that law is central to the present environmental crisis is the motivation behind a growing movement in law called Earth Jurisprudence.⁴ This section will introduce the inquiry and outline the fundamental themes upon which the thesis is built. It begins by introducing the environmental crisis and describes the relationship between law and environmental harm. It also introduces the concepts of paradigm and paradigm shift, which are used in this thesis to analyse how law and legal concepts such as private property can shift from an anthropocentric to an ecocentric foundation.

1. *The Environmental Crisis*

Our biosphere is sick and is behaving like an infected organism. As carbon has been collecting in our atmosphere, it has also been accumulating in the ocean and as time has passed, deforestation, soil erosion, vanishing wetlands and a whole host of other problems have continued unabated. We face a convergence of crises, all of which present a significant moral and survival challenge for the human species. In 2001 the United Nations Millennium Assessment undertook a four-year study, involving over 2000 scientists from 95 countries, on the health of the planet.⁵ Released in March 2005, the report found that every 'living system'⁶ in the biosphere was in a state of decline, the

³ For a detailed biography see <<http://www.thomasberry.org/Biography/>>.

⁴ See the epigraph, above, page 3. Earth Jurisprudence is also known as 'Wild Law', see Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice* (2002).

⁵ Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Biodiversity* (2005) <<http://www.MAweb.org/en/index.aspx>>.

⁶ Living systems are defined broadly as ocean, forests, desert, wetlands and other geographical areas.

rate of which is increasing.⁷ It further estimated that humans were responsible for the extinction of between 50-55 thousand species each year,⁸ a rate unequalled since the last great extinction some 65 million years ago.⁹ These systems and species provide the basis for all life and their devastation undermines the health and future flourishing of all components of nature.¹⁰

The scale of the present crisis is so great that in 2000, atmospheric chemist Paul Crutzen argued that the period from the industrial revolution to the present constituted a new geological era. Crutzen labelled this period the 'anthropocene'¹¹ to describe the significant impact of human activity on the Earth. The term 'anthropocene' follows the geological tradition that divides the Phanerozoic eon¹² into Paleozoic,¹³ Mesozoic¹⁴ and Cenozoic¹⁵ eras. Commenting on this characterisation, David Suzuki argues that human beings have 'become a force of nature.'¹⁶ Indeed, it was not so long ago that hurricanes, tornadoes, floods and droughts were accepted as natural disasters. 'But now', Suzuki argues, 'we have joined God, powerful enough to influence these events.'¹⁷

⁷ The study also noted that 60% of global ecosystem services 'are being degraded or used unsustainably' resulting in 'substantial and largely irreversible loss in the biodiversity of life on Earth.'

⁸ David Suzuki quoted in *The 11th Hour: Turn Mankind's Darkest Hour Into Its Finest* (Directed by Leonardo DiCaprio, Warner Brothers Pictures, 2007) 00:30:19.

⁹ Berry, above n 1, 107. For updated statistics see the World Watch Institute <<http://www.worldwatch.org>> and the Earth Policy Institute <<http://www.Earth-policy.org/>>.

¹⁰ In this thesis, the term 'nature' includes human beings. This is consistent with contemporary statements in ecology which describes itself as 'the study of the structure and function of nature, *it being understood that mankind is a part of nature*' Eugene Odum, *Fundamentals of Ecology* (1971) 3.

¹¹ Paul Crutzen and EF Stoermer, 'The Anthropocene' (2000) 41 *Global Change Newsletter* 17. Crutzen has explained, 'I was at a conference where someone said something about the Holocene. I suddenly thought this was wrong. The world has changed too much. So I said: No, we are in the Anthropocene. I just made up the word on the spur of the moment. Everyone was shocked. But it seems to have stuck.'

¹² Term describes the eon covering the whole of time since the beginning of the Cambrian period.

¹³ The Paleozoic lasted from about 570 million to 245 million years ago, its end being marked by mass extinctions.

¹⁴ The Mesozoic lasted from about 245 million to 65 million years ago. Large reptiles were dominant on land and sea throughout this time; vegetation had become abundant, and the first mammals, birds, and flowering plants appeared.

¹⁵ The Cenozoic has lasted from about 65 million years ago to the present day. It has seen the rapid evolution and rise to dominance of mammals, birds, and flowering plants.

¹⁶ David Suzuki, *The Legacy: An Elder's Vision for our Sustainable Future* (2010) 17.

¹⁷ *Ibid.*

In the context of the anthropocene, chapter two of this thesis considers how the concept of private property facilitates the environmental crisis. For now it is sufficient to note that the crisis is very real and largely anthropogenic. These two points were forcibly advocated before the international community in 1992 when 1,700 senior scientists (including 104 Nobel Prize winners, comprising more than half of all laureates alive at the time) signed a document called 'World Scientists Warning to Humanity'. The opening words read:

Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at risk the future that we wish for human society...and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about.¹⁸

The authors went on to list the areas of collision from the atmosphere to water resources, oceans, soil, forests, species and population. The document also warns:

No more than one or a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished. We the undersigned, senior members of the world's scientific community, hereby warn all humanity of what lies ahead. A great change in our stewardship of the Earth and life on it, is required, if human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated.¹⁹

The failure of the international community to respond adequately to this and other warnings is already devastating communities around the world²⁰ and has the potential to put the future of most components of the Earth community in great jeopardy.

¹⁸ Union of Concerned Scientists, 'World Scientists Warning to Humanity' (1992) <<http://www.ucsusa.org/about/1992-world-scientists.html>>. See further The World Commission on Environmental Development, *Our Common Future* (1987).

¹⁹ Ibid.

²⁰ See Lester R Brown, *World on the Edge: How to Prevent Environmental and Economic Collapse* (2011).

2. Environmental Crisis and Ethics

At the dawn of the twenty-first century there is no greater challenge confronting human beings than the fate of the environment and the community of life it supports. There are many different ways to understand and interpret this crisis. Some of the most visible explanations include capitalism,²¹ consumerism,²² over-population,²³ racism,²⁴ patriarchy²⁵ and anthropocentrism.²⁶ These approaches are not mutually exclusive and interact in a complex cultural, social, political and economic web. Commenting on this mixture, some theorists have begun to characterise the present environmental crisis as a crisis of culture. Thom Hartmann writes:

The problem is not a problem of technology. The problem is not a problem of too much carbon dioxide. The problem is not a problem of global warming. The problem is not a problem of waste. All of those things are symptoms of the problem. The problem is the way that we are thinking. The problem is fundamentally a cultural problem.²⁷

Philosopher John Livingston supports this point by noting that disasters are commonly portrayed as a series of separate issues. He writes: 'Oil spills, endangered species, ozone depletion and so forth are presented as separate incidents and the overwhelming nature of these events means that we seldom look deeper.'²⁸ 'However' Livingston argues, 'issues are analogous to the tip of an iceberg, they are simply the visible portion of a

²¹ John Bellamy Foster, *The Ecological Rift: Capitalism's War on the Earth* (2010).

²² Samuel Alexander, *Voluntary Simplicity: The Poetic Alternative to Consumer Culture* (2009).

²³ Paul Ehrlich and Anne Ehrlich, *Population, Resources, Environment: Issues in Human Ecology* (1972).

²⁴ Laura Westra and Peter Wenz (eds), *Faces of Environmental Racism* (1995).

²⁵ Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (1990).

²⁶ David Ehrenfeld, *The Arrogance of Humanism* (1978).

²⁷ *The 11th Hour: Turn Mankind's Darkest Hour Into Its Finest* (Directed by Leonardo DiCaprio, Warner Brothers Pictures, 2007) 00:11:45. In agreement, Ralph Metzner notes in *Green Psychology* (1999) 99 '[t]here is a growing chorus of agreement that the roots of the ecological crisis must lie in the attitudes, values, perceptions and basic worldview that we humans of the global industrial society have come to hold.'

²⁸ John Livingston, *Arctic Oil* (1981) 24.

much larger entity, most of which lies beneath the surface, beyond our daily inspection.²⁹

Of the explanations listed above, this thesis concentrates on anthropocentrism. This focus is highlighted by Berry who writes: 'The deepest cause of the present devastation is found in a mode of consciousness that has established a radical discontinuity between the human and other modes of being.'³⁰ Anthropocentrism assigns value to human beings alone or assigns a significantly greater amount of value to human beings than nonhuman entities.³¹ It regards humans as the central fact or final aim and end of the universe and views and interprets everything in terms of human experience and values. Finally, anthropocentrism promotes a separation of people from nature and positions us at the imagined centre of the universe. In this space the environment is peripheral and exists as a resource to satisfy human needs, desires and wants.³² Human beings are not understood as members of the mammalian class. We are 'culturally determined and distinguished' and 'set apart from all other uncultured parts of nature.'³³ Under this dualistic framework, nature is profoundly vulnerable to human

²⁹ Livingston, above n 28, 24.

³⁰ Thomas Berry, *The Great Work: Our Way Into the Future* (1999) 4. This is supported by Klaus Bosselmann, *When Two Worlds Collide: Society and Ecology* (1995) 6: 'Anthropocentrism is the deepest cause of the present environmental crisis.'

³¹ This is a distinction between 'strong' and 'weak' anthropocentrism. Some theorists advocate what may be called enlightened anthropocentrism. This is the view that all the moral duties we have towards the environment are derived from our direct duties to its human inhabitants. See Eric Katz and Andrew Light (eds), *Environmental Pragmatism* (1996).

³² Contemporary examples of this thinking can be witnessed in the debate concerning the preservation of the spotted owl in America's Northwest. Writing in *Time Magazine*, journalist Charles Krauthammer commented: 'Nature is our ward, not our master...it is man's world and when man has to choose between his well-being and that of nature, nature will have to accommodate.' See Charles Krauthammer, 'The Spotted Owl' *Time Magazine* 17 June 1991, 82. In solidarity, Rush Limbaugh noted: 'If the owl can't adapt to the superiority of humans, screw it...if a spotted owl can't adapt, does the Earth really need that particular species so much that hardship to human beings is worth enduring in the process of saving it?' See Rush Limbaugh, cited in Dale Jamieson, *Ethics and the Environment: An Introduction* (2008) 181-82.

³³ Nicole Graham, *Landscape: Property, Environment, Law* (2011) 28.

exploitation. There is no reason to protect the environment for its own sake and environmental destruction can be justified if it contributes to human good.³⁴

This thesis argues that the anthropocentric worldview is reflected in Western law. To introduce this discussion we will first consider the important relationship between law and culture.

3. *The Relationship Between Law and Culture*

The law and legal disciplines are not created in a vacuum. Though they appear 'natural' and almost self-evident, the law and legal disciplines always tend, to a greater or narrower extent, to mirror the reality in which they are born and in which they grow.³⁵

Legal systems and philosophies emerge from cultural contexts.³⁶ Law is a significant description of the way in which a society analyses itself and projects its image to the world. Law is a major articulation of a culture's self-concept, representing the theory of society and environment within that culture.³⁷ Further to this, law can also be regarded as the deepest and most generalised philosophical statement that a culture can make about itself.³⁸ The legal experience is a 'multidimensional phenomenon wherein mythic,

³⁴ See further Val Plumwood, 'Androcentrism and Anthrocentrism: Parallels and Politics' (1996) *Ethics and the Environment* 1.

³⁵ Mauro Zamboni, 'Social in Social Law: An Analysis of a Concept in Disguise' (2008) 9 *Journal of Law and Society* 63.

³⁶ While this thesis describes law as a cultural product and a reflection of the dominant and widely held values that exist in society, it acknowledges the difficulty of describing culture as a homogenous or stable thing.

³⁷ JC Smith and David Weisstub, *The Western Idea of Law* (1983) vii. Underlying this analysis is the theory of social constructionism. See Peter Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* (1967).

³⁸ This is heightened in revolutionary or anarchist societies. See Robert Paul Wolff, *In Defense of Anarchism* (1998).

dramatic, rhetorical and philosophical³⁹ elements play a significant role. As a result features that may not seem to be linked are actually crucially related to one another.⁴⁰

Law also varies significantly between societies and possesses a distinctive history, terminology and body of rules.⁴¹ In light of these factors Lawrence Rosen argues, 'to understand how a culture is put together and operates...one cannot fail to consider law; to consider law, one cannot fail to see it as part of culture.'⁴² The instant one begins to approach law from this perspective, the questions we ask about law and the ideas we have regarding its development shift. This point is explicitly recognised by Kermit Hall in his description of law as a 'magic mirror'.⁴³ This description has two aspects. First, law is understood as a 'cultural artefact' and legal historians are encouraged to explore the social choices and moral imperatives that underpin a legal system and its normative concepts.⁴⁴ Further, Hall contends that a proper understanding of the relationship between law and culture allows one to consider and perhaps even influence the future direction of law. His theory of law is characterised by how it describes 'the rapidity with which changes in the general culture penetrated the legal system.'⁴⁵ Hall's primary conclusion is that a legal system 'is more like a river than a

³⁹ Smith and Weisstub, above n 37, vii. See further Peter Fitzpatrick, *The Mythology of Modern Law* (1992).

⁴⁰ Lawrence Rosen, *Law As Culture: An Invitation* (2006) 6-7. See also Roger Cotterell, *Law, Culture and Society: Legal Ideas in the Mirror of Social Theory* (2006).

⁴¹ Rosen, above n 40, 7.

⁴² Ibid 5. It should be noted that the statement 'law reflects culture, is contestable. Lord Mansfield famously noted that the law 'works itself pure', *Omychund v Baker* [1744] 26 ER 15, [24]. Lon Fuller has argued that since good is more logical than evil, the result of the reduction of contradiction through common-law reasoning will necessarily 'pull those decisions toward goodness', 'Positivism and Fidelity to Law' (1958) 71 *Harvard Law Review* 630: 636. Lawrence Rosen quotes from Thomas R Powell at above n above n 40, xi: 'If you think that you an think about a thin, inextricably attached to something else, without thinking of the thing it is attached to, then you have a legal mind.'

⁴³ Hall and Karsten, above n 2, 1. This description builds on a statement from Justice Oliver Wendell Holmes Jr who noted: 'This abstraction called Law is a magic mirror, [wherein] we see reflected, not only our own lives, but the lives of all men that have been!' Oliver Wendell Holmes, *The Speeches of Oliver Wendell Holmes* (1891) 17.

⁴⁴ Hall and Karsten, above n 2, 1.

⁴⁵ Ibid 341.

rock, more the product of social and cultural change than the mold of social development.⁴⁶

From this perspective, law is a mirror of the dominant values and perceptions of culture. Further, future legal concepts depend intimately on how these values and perceptions change and adapt to future needs, social choices and ethical imperatives.⁴⁷ This characterisation of law is fundamental to understanding the source of its anthropocentric basis. It also suggests that if Western culture were to change to recognise ecocentric ethics then this could catalyse a change in law.

4. *Law and Anthropocentrism*

Society cannot be better than its idea of itself. Law cannot be better than society's idea of itself. Given the central role of law in the self-ordering of society, society cannot be better than its idea of law.⁴⁸

Because law is a product of culture and because Western culture is anthropocentric, Western law reflects elements of anthropocentrism. To illustrate this point we turn first to legal theory, which as Karl Llewellyn notes 'is as big as law – and bigger.'⁴⁹ Legal theory deeply informs our concept of law⁵⁰ and plays a critical role in shaping the contours and provisions of positive law. Despite great variation, Western theories of law

⁴⁶ Hall and Karsten, above n 2, 383.

⁴⁷ Roberto Unger, *False Necessity: Anti-Necessitarian Social Theory in the Service of Radical Democracy* (2001) 556. See also, the vast literature on 'social constructionalism'. This concept holds that the meaning of legal concepts is the product of evolving social practices rather than a reflection of an unchanging, objective reality. See further Berger and Luckmann, above n 37 and Stanley Fish, *Doing What Comes Naturally: Change, Rhetoric, and the Practice of Theory in Literary and Legal Studies, Post-contemporary Interventions* (1990).

⁴⁸ Phillip Allot, *Eunomia: New Order for a New World* (1990) 298.

⁴⁹ Karl Llewellyn, *Jurisprudence: Realism in Theory and Practice* (1962) 372.

⁵⁰ Two canonical statements on this point are HLA Hart, *The Concept of Law* (1961) and Dennis Lloyd, *Idea of Law* (1991) [first published 1964].

are predominately anthropocentric.⁵¹ This is specifically true for both Natural Law and Legal Positivism,⁵² which are concerned ultimately with human beings and human good.⁵³ More specifically, legal theory is concerned with ‘relations between individuals, between communities, between states and between elementary groupings themselves.’⁵⁴ Only in rare circumstances does legal theory consider the environment as relevant to human law.⁵⁵ Indeed, ‘the separation and hierarchical ordering of the human and non-human worlds constitutes the primary assumption from which most Western legal theory begins.’⁵⁶

In contemporary legal theory, Legal Positivism is the dominant school of thought.⁵⁷ Positivism describes law as a science and holds that no external element (i.e. morality, the environment or religion) enters into the definition of law. Legal provisions are identified by empirically observable criteria, such as legislation, common law and custom. Positivism focuses on the identification and definition of law with reference to ‘abstract legal categories’ and regards those doctrines as ‘authoritative rules’ applicable

⁵¹ Graham, above n 33, 15.

⁵² Both terms will be described in Chapters Two and Four. Briefly, traditional Natural Law philosophy holds that there is a necessary connection between law and morality. Legal Positivism denies this connection and traces legal authority to a constitution or union between primary and secondary rules.

⁵³ Environmental law and animal law represent an ethical extension beyond the human community. However, both disciplines are generally justified (though not exclusively) with regard to human needs and wellbeing. For a critique of environmental law see Bosselmann, above n 30, 95-100. Similarly, for many decades, the moral treatment of animals had been justified with reference to band consequences for human beings. Such concern was also justified with reference to Immanuel Kant’s suggestion that cruelty toward animals might encourage a person to develop a character that would be desensitised to cruelty towards humans. See Immanuel Kant, ‘Duties to Animals and Spirits’ in *Lectures on Ethics* (1963) 212. This ethical stance is shifting, see Deborah Cao, Katrina Sharman and Steven White, *Animal Law in Australia and New Zealand* (2010) 3-15.

⁵⁴ Graham, above n 33, 15.

⁵⁵ Alongside Earth Jurisprudence note the emerging discipline of law and geography. Law and geography analyses the role of place, space and nature in law. See further Nicholas Blomley, *Law, Space and the Geographies of Power* (1994); ‘Landscapes of Property’ (1998) 32(3) *Law and Society Review* 567; Nicholas Blomley, D Delaney and R Ford, *The Legal Geographies Reader: Law, Power and Space* (2001). See also, Tim Bonyhady, *Words for Country: Landscape and Language* (2002) and Lee Godden, ‘Preserving Natural Heritage: Nature as Other’ (1998) 22 *Melbourne University Law Review* 719.

⁵⁶ Graham, above n 33, 15.

⁵⁷ JW Harris, *Legal Philosophies* (2002) 16.

to each question and dispute requiring legal adjudication.⁵⁸ This method explicitly considers the influence of nature, non-human animals, and place irrelevant. The human-centred nature of Legal Positivism is expressed further by the refusal or passive allowance of courts to receive important aspects of a dispute including cultural evidence,⁵⁹ or the capacity to seek protection for the environment in its own right.⁶⁰ As Graham argues: 'By imagining and juxtaposing objective and subjective thought, abstract rules and particular contexts and then by privileging objectivity and abstraction, Legal Positivism epitomises anthropocentric logic.'⁶¹

As described in chapter two, private property is the perfect expression of anthropocentric thinking and maintains a human/nature dichotomy. Further, it promotes the view that only human beings or corporate 'persons' are subjects and that nature is an object. Nature is not considered to possess inherent value and receives instrumental value and protection from human property rights. Law and economics scholars are particularly unapologetic on this point. Richard Posner, for example, typifies the instrumentalist view of nature in his advocacy for privatisation: 'If every valuable (meaning scarce as well as desired) resource were owned by someone (universality), ownership connotes the unqualified power to exclude everybody else from using the resource (exclusivity) as well as to use it oneself, and ownership rights were freely transferable or as lawyers say alienable (transferable), value would be maximized.'⁶²

⁵⁸ Graham, above n 33, 15.

⁵⁹ See Brian Edward Brown, *Religion, Law and the Land: Native Americans and the Judicial Interpretation of Sacred Land* (1999).

⁶⁰ See Prue Taylor, 'The Imperative of Responsibility in a Legal Context: Reconciling Responsibilities and Rights' in J Ronald Engel, Laura Westra, and Klaus Bosselmann, *Democracy, Ecological Integrity and International Law* (2010) 203.

⁶¹ *Ibid.*

⁶² Richard Posner, *Economic Analysis of Law* (1986) 32. See further Richard Posner, 'Utilitarianism, Economics, and Legal Theory' (1979) 8(1) *Journal Legal Studies* 103.

The description of nature as a human resource is axiomatic in Western law. However, the cultural basis for this idea must be established from the outset. To be clear – it is not that nature is inherently an object or that it must be defined in this way. Instead, as illustrated in chapter two, our understanding of private property reflects an anthropocentric heritage of Western philosophy and theology. Further, individuals enculturated in the Western tradition and schooled in this worldview can be seduced into conceiving of nature as object. That is, pre-existing interpretations of private property can play a role in further perpetuating the objectification of nature.⁶³

The anthropocentric tenor of Western theories of private property is described further in chapter two. This thesis also considers how private property can adapt to reflect the emerging theory of Earth Jurisprudence in chapter five. To analyse the dominant theory of private property and its potential development, this thesis employs the concepts of paradigm and paradigm shift. These concepts are integral to the thesis and will be introduced briefly here.

5. *Paradigm and Paradigm Shift*

Revolutions are inaugurated by a growing sense...that existing institutions have ceased adequately to meet the problems posed by an environment that they have in part created.⁶⁴

The concepts of paradigm and paradigm shift were first articulated by physicist and philosopher Thomas Kuhn.⁶⁵ Writing specifically with regard to science, Kuhn defined a

⁶³ Further to this argument, individuals are born free and have the potential to move outside this dominant framework. The notion of 'free individuals' is central to Thoreavian interpretations of private property. See Samuel Alexander, 'Property beyond Growth: Toward a Politics of Voluntary Simplicity', David Grinlinton and Prue Taylor (eds), *Property Rights and Sustainability The Evolution of Property Rights to Meet Ecological Challenges* (2011). Special thanks to the author for an advanced copy of this paper.

⁶⁴ Thomas Kuhn, *The Structure of Scientific Revolutions* (1996) 92.

⁶⁵ *Ibid.*

paradigm as: 'A constellation of achievements – concepts, values, techniques, etc.- shared by a scientific community and used by that community to define legitimate problems and solutions.'⁶⁶ In recent years, cultural and legal theorists have adopted to the term paradigm to explain how laws adapt and evolve.⁶⁷ It is also a widely accepted methodology for doctrinal research.⁶⁸ Consistent with this literature, this thesis defines the term paradigm as a *constellation of concepts, values, perceptions and practices shared by a community, which forms a particular vision of reality that is the basis of the way the community organises itself and creates law.*⁶⁹ This thesis argues that the dominant paradigm in Western law and property theory is anthropocentrism.

Commenting on the notion of paradigm shift Kuhn argued that social factors⁷⁰ or developments in knowledge⁷¹ could lead to a paradigm crisis. This occurs when the dominant paradigm becomes dysfunctional, impacts negatively or loses its meaning for a given society. When this occurs, a society may go through a brief period of dissonance, which is followed by a shift toward a new paradigm. Importantly, Kuhn notes that a society may be completely ignorant or even deny that a paradigm crisis is upon them.⁷² Broad acknowledgment is not a prerequisite to paradigm shift. However, when a crisis occurs it is not a question of if, but when, a culture adapts to meet the new paradigm. Kuhn contends: 'The decision to reject one paradigm is always simultaneously the

⁶⁶ Kuhn, above n 64, 43.

⁶⁷ For example see Graham, above n 33, 1-8; M.D.A. Freeman, *Lloyds Introduction to Jurisprudence* (2008) 27-32; MDA Freeman, *Current Legal Problems* (1982) 99-105 and Edwin Lemert, *The Juvenile Court System: Social Action and Legal Change* (2009).

⁶⁸ Terry Hutchinson, *Researching and Writing in Law* (2010) 9-12.

⁶⁹ This definition is inspired by Fritjof Capra, *The Web of Life: A New Scientific Understanding of Living Systems* (1996) 6. See also Fritjof Capra, 'Paradigms and Paradigm Shift' (1985) 9(1) *Revision* 11. This definition of paradigm also draws on Stanley Fish's concept of 'interpretive communities'. See, Stanley Fish, *Is There a Text in this Class: The Authority of Interpretive Communities* (1982).

⁷⁰ Kuhn, above n 64, 69.

⁷¹ *Ibid* 66.

⁷² This is particularly relevant in the present context, where in the face of scientific evidence of impending environmental disaster many people continue to adopt a 'business as usual' approach to life.

decision to accept another, and the judgment leading to that decision involves the comparison of both paradigms with nature and with each other.⁷³

The concepts of paradigm and paradigm shift can also be considered alongside analyses of greater social and cultural periods captured by writers such as Pitirim Sorokin,⁷⁴ Lewis Mumford,⁷⁵ Thomas Berry and Brian Swimme.⁷⁶ The analysis conducted by Berry and Swimme is explored in chapter three of this thesis.⁷⁷ In contrast to Crutzen's geological description 'anthropocene', Berry and Swimme seek to catalyse a transition from the terminal Cenozoic era to the emerging Ecozoic era. As the name suggests, this period is characterised by ecocentric ethics and seeks to facilitate 'mutually enhancing human-Earth relations.'⁷⁸ Commenting on this transition, Berry writes:

Presently, we are entering another historical period, one that might be designated as the ecological age. I use the term *ecological* in its primary meaning as the relation of an organism to its environment, but also as an indication of the interdependence of all the living and nonliving systems of the earth. [Entering this age] is not simply adaptation to a reduced supply of fuels or to some modification in our systems of social or economic controls. Nor is it some slight change in our educational system. What is happening is something of a far greater magnitude. It is a radical change in our mode of consciousness.⁷⁹

⁷³ Kuhn, above n 64, 77. Perhaps the most explicit example of paradigm crisis and paradigm shift offered by Kuhn is the Copernican Revolution where Nicolaus Copernicus demonstrated that the Earth is a planet revolving around the sun, as well as rotating on its own axis. Kuhn notes at 66-69 that this discovery put existing science and associated assumptions about the place of human beings in the centre of the universe into jeopardy. However, in time, culture shifted toward the new truth and absorbed its cosmological implications.

⁷⁴ Pitirim Sorokin, *Social and Cultural Dynamics* (1970). Sorokin identifies three basic and interrelated value systems that underlie all manifestations of a culture. These are labelled the sensate, the ideational and the idealistic.

⁷⁵ Lewis Mumford, *The Transformations of Man* (1956). Mumford argues that there have been fewer than six major cultural transformations in the entire history of Western civilization. Among them Mumford includes, the rise of civilization, the invention of agriculture at the beginning of the Neolithic period, the rise of Christianity at the fall of the Roman Empire and the transition from the middle ages to the scientific age

⁷⁶ Thomas Berry and Brian Swimme, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era, A Celebration of the Unfolding of the Cosmos* (1992).

⁷⁷ See further, Thomas Berry, 'The New Story' in *Teilhard Studies* (1977); 'The Story and the Dream: The Next Step in the Evolutionary Epic' in J.B. Miller (ed), *The Epic of Evolution: Science and Religion in Dialogue* (2003) and David Korten, *The Great Turning* (2006).

⁷⁸ Swimme and Berry, above n 76, 280.

⁷⁹ Thomas Berry, *The Dream of the Earth* (1988) 42.

The term 'ecocentric' is an alternative paradigm to anthropocentrism and denotes an Earth-centred (as opposed to human-centred) system of values.⁸⁰ Commenting on the distinction between the two paradigms, Klaus Bosselmann argues that the 'relationship between anthropocentrism and ecocentrism is not one of gradual difference, but one of paradigmatic dichotomy.'⁸¹ This thesis promotes the ecocentric paradigm most visibly in the concept Earth community. This term refers specifically to two ideas. First, human beings exist as one interconnected part of a broader community that includes both living and nonliving entities. Second, the Earth is a community of subjects and not a collection of objects.

This description of Earth community is informed by the writing of Berry and other philosophers such as Aldo Leopold and Joanna Macy who adopt an ecological and systems theory worldview.⁸² It also draws from the discipline integral ecology.⁸³ As described variously by these writers, the Earth is interconnected whole and living systems are Holon's. This means that they have a dual nature, both as systems and subsystems – they are wholes in themselves and simultaneously, integral parts of larger wholes. Human beings are subjects and have value both as individuals and as part of a greater whole called the Earth community. This is true also for non-human animals,

⁸⁰ For a broad discussion of this shift see Ervin Laszlo, 'Berry and the Shift from the Anthropocentric to the Ecological Age' in Ervin Laszlo and Allan Combs (eds), *Thomas Berry Dreamer of the Earth: The Spiritual Ecology of the Father of Environmentalism* (2011) 115.

⁸¹ Klaus Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (2008) 92.

⁸² See Joanna Macy, *Coming Back to Life* (1998) 39-44. Systems' thinking is the process of understanding how things influence one another within a whole. For other arguments relating to the inherent value of nature see Nicholas Agar, *Life's Intrinsic Value* (2001); Lawrence E Johnson, *A Morally Deep World: An Essay on Moral Significance and Environmental Ethics* (1991) and George Sessions (ed), *Deep Ecology for the 21st Century* (1995).

⁸³ See Sean Esjörn-Hargens, 'Ecological Interiority: Thomas Berry's Integral Ecology Legacy' in Laszlo and Combs, above n 80, 92. See also Sean Esjörn-Hargens and Michael E Zimmerman, *Integral Ecology: Uniting Multiple Perspectives on the Natural World* (2009) and Ken Wilber, *Sex, Ecology, Spirituality: The Spirit of Evolution* (1995). From pages 35-78 Wilber identifies twenty tenets that characterise all holons. These tenets form the basis of Wilber's model of manifest reality.

rivers, trees and oceans.⁸⁴ A holistic description of nature 'points towards the necessity of putting all those ecological correlations and networks, of which humankind is only "one" aspect, into the centre of our thoughts and not humanity.'⁸⁵ In this respect, the concept of Earth community advocates a 'shift of the centre of human thought about humans to the network of interrelations between humans and nature.'⁸⁶ Importantly, this reasoning does not deny the moral status of human beings or claim that all forms of non-human nature have moral equivalence with humanity.⁸⁷ Instead, it seeks to shift our focus away from hierarchies and asserts that all components of the Earth community have value. It takes the wellbeing or common good of this comprehensive whole as the starting point for human ethics.

III. LITERATURE REVIEW

While many of the fundamental tenets of Earth Jurisprudence have been promoted in environmental philosophy for decades,⁸⁸ its direct application to law and legal theory

⁸⁴ Berry, above n 1, 149. Berry describes the interaction between human value and the value of non-human animals and ecosystems in terms of qualitative difference. While expressed in terms of rights he notes: 'All rights are role-specific or species-specific, and limited. Rivers have river rights. Birds have bird rights. Insects have insect rights. Humans have human rights. Difference in rights is qualitative, not quantitative. The rights of an insect would be of no value to a tree or a fish.'

⁸⁵ Bosselmann, above n 30, 7.

⁸⁶ Ibid.

⁸⁷ On this point see Nicholas Low and B Gleeson, *Justice, Society and Nature* (1998) 97 and Konrad Ott, 'A Modest Proposal about How to Proceed in Order to Solve the Problem of Inherent Moral Value in Nature' in Laura Westra, Klaus Bosselmann and Richard Westra (eds), *Reconciling Human Existence with Ecological Integrity* (2008) 48. Ott argues that the division of the moral community into subclasses is necessary 'since any environmental ethics needs a basic conception for conflict resolution which can meet different types of conflicts.'

⁸⁸ See for example Aldo Leopold, *A Sand County Almanac: Essays on Conservation from Round River* (1966), Roderick Nash, *The Rights of Nature: A History of Environmental Ethics* (1989) and Donald Worster, *Nature's Economy: A History of Ecological Ideas* (1994).

was only proposed by Berry in November 2001.⁸⁹ Further, Berry and subsequent proponents of Earth Jurisprudence have not engaged thoroughly with academic writing on environmental philosophy or legal theory. As a result, Earth Jurisprudence is at a very early stage of development and there is considerable space to contribute to the discourse. The intention of this section is to review the existing scholarship in Earth Jurisprudence. It then reviews the scholarship of three key disciplines to this thesis, in environmental philosophy, legal theory and property theory.

The dominant mode of analysis utilised in this thesis is theoretical research coupled with the critical analysis of primary and secondary documents. Theoretical research is well situated within the existing research framework and is based in philosophy rather than praxis.⁹⁰ Further, the theoretical approach adopted in this thesis is multidisciplinary and seeks to incorporate law, ethics, philosophy and science. This methodology recognises that law is not a closed intellectual box and that consideration of other perspectives adds value to legal research.

1. *Earth Jurisprudence*

Earth Jurisprudence is an expression of the Ecozoic era, which Berry contends is emerging from the present environmental crisis. As described in this thesis, Earth Jurisprudence is both a branch of critical theory and also a philosophy of law. In regard to the former, Earth Jurisprudence seeks to analyse the contribution of law in constructing, maintaining and perpetuating anthropocentrism and looks at ways in which this orientation can be undermined and ultimately eliminated. In place of

⁸⁹ See Cormac Cullinan, 'A History of Wild Law' in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

⁹⁰ Hutchinson, above n 68, 7-8.

anthropocentrism, Earth Jurisprudence advocates an interpretation of law based on the ecocentric concept of Earth community. In doing so, it draws an important analogy with Natural Law philosophy. Indeed, Earth Jurisprudence positions the concept of Earth community as a 'higher' law to human law and situates the concept as a standard for human law. Laws that contravene the principle of Earth community are considered defective and not morally binding on a populace. This interpretation of law retains the lawmaking authority and interpretative function of human beings but demands reference to the Earth community as an integral part of the lawmaking process.

In regard to the existing literature on Earth Jurisprudence, the most important contribution is the writing of Thomas Berry.⁹¹ While Berry's direct comments on law are limited and only in broad outline, he has both inspired and provided the broad conceptual framework within which contemporary advocates of Earth Jurisprudence operate. In his three major publications Berry demonstrates intimate concern for damage being caused to the environment by the modern industrial economic system.⁹² Consistent with other environmental philosophers, he identifies this crisis as a symptom of a larger cultural problem, described as anthropocentrism.⁹³ Through this lens, Berry mounts a critique of Western culture, paying significant attention to politics, education, religion and economics.⁹⁴ He also advocates passionately for the legal recognition of the rights of nature.⁹⁵ As recognised above, Berry has contributed to the development of

⁹¹ For an introduction to his work see Mary-Evelyn Tucker, 'Editors Afterword: An Intellectual Biography of Thomas Berry' in Berry, above n 1, 151.

⁹² Berry, above n 30 and 76. Further to these authored works, three volumes of collected papers have been edited and published by Mary-Evelyn Tucker and John Grim.

⁹³ Berry, above n 30, 4.

⁹⁴ Ibid 72-85, 107-116, 117-135.

⁹⁵ Ibid 5: 'So too every being has rights to be recognised and revered. Trees have tree rights, insects have insect rights, rivers have river rights, mountains have mountain rights. So too with the entire range of beings throughout the universe. All rights are limited and relative. So too with humans.' See also Berry, above n 1, 149-159. See also Peter Burdon, 'The Jurisprudence of Thomas Berry', (2011) 11 *Worldviews: Global Religions, Culture, and Ecology* (forthcoming).

ecocentric ethics and the concept of Earth community as an alternative paradigm for human society. He is also concerned with methods for shifting culture toward ecocentric values, most notably through his 'new story', which explains contemporary scientific insights such as interconnectedness in a narrative form.⁹⁶

Alongside Berry, the most sustained analysis of Earth Jurisprudence is Cormac Cullinan's book *Wild Law*.⁹⁷ Currently, this text represents the only focused analysis dedicated entirely to the philosophy of Earth Jurisprudence.⁹⁸ Drawing significantly on Berry, Cullinan makes a significant contribution toward understanding the anthropocentric history of Western culture.⁹⁹ He also engages on the surface with legal philosophy,¹⁰⁰ the rights of nature discourse¹⁰¹ and considers the broad implications of Earth Jurisprudence for human governance structures.¹⁰² However, Cullinan's text is written in a very general style and in seeking to provide a broad overview of the many potential implications of Earth Jurisprudence, he does not cover any one topic in detail. Important gaps include a considered analysis of how anthropocentrism has influenced law and how it is reflected in legal concepts. Further, Cullinan does not provide a detailed description of Earth Jurisprudence as a legal philosophy and makes only fragmentary comments on its relationship to Natural Law philosophy.¹⁰³ Finally, while Cullinan does discuss property law,¹⁰⁴ his analysis does not engage with the current legal-philosophical discourse or provide an alternative description of private property

⁹⁶ Berry, above n 76. See also Brian Swimme, *The Universe Is a Green Dragon: A Cosmic Creation Story* (1984), Brian Swimme, *The Hidden Heart of the Cosmos: Humanity and the New Story* (1999) and Brian Swimme and Mary-Evelyn Tucker, *Journey of the Universe* (2011). Further information on the Journey of the Universe project can be found at <<http://www.journeyoftheuniverse.org/>>.

⁹⁷ Cullinan, above n 4.

⁹⁸ See also Peter Burdon (ed), *Wild Law: An Invitation* (2011).

⁹⁹ Cullinan, above n 4, 37-57.

¹⁰⁰ Ibid 83-93.

¹⁰¹ Ibid 106-124

¹⁰² Ibid 125-138

¹⁰³ Ibid 74-78.

¹⁰⁴ Ibid 161-170

based on the philosophy of Earth Jurisprudence. Thus, while Cullinan's text represents a valuable introduction to Earth Jurisprudence there remains a great need to develop a robust and intellectually satisfying theory that explores the philosophy in more detail. It is also important to test the various concepts advanced by Cullinan. Such work is vital for the underlying strength of Earth Jurisprudence, its communication and ultimately its survivability in open public discourse.¹⁰⁵

Outside of Cullinan's text the literature on Earth Jurisprudence is growing steadily. This has been supported by conferences around the world that seek to promote the theory to law students, environmental activists, academics and lawmakers.¹⁰⁶ By far the greatest concentration of work has been on advocating for the legal recognition of nature's rights.¹⁰⁷ Other important contributions have been made in regard to the basic concept of Earth Jurisprudence¹⁰⁸ and consequence of Earth Jurisprudence for environmental law,¹⁰⁹ religion¹¹⁰ and utilitarian ethics.¹¹¹ This thesis seeks to contribute

¹⁰⁵ On the importance of open public discourse for the development and survivability of a theory see John Rawls, *A Theory of Justice* (1971) 67. See also Amartya Sen, 'Consequential Evaluation and Practical Reason' (2000) 97 *Journal of Philosophy* 477 and Amy Guttmann and Dennis Thompson, *Democracy and Disagreement* (1996).

¹⁰⁶ The first conference in Australia was organised in Adelaide on 16-18 October 2009 <<http://www.adelaide.foe.org.au/Earth-jurisprudence/>>. This was followed by a conference in Wollongong, 22-25 July 2010 <www.keepingthefire.org> and a conference in Brisbane on 16-18 September 2011 <<http://www.griffith.edu.au/conference/wild-law-2011>>.

¹⁰⁷ Cormac Cullinan, 'Do Humans Have Standing to Deny Trees Rights?' (2009) 11 *Barry Law Review* 11; Donald Goldberg and Tracy Badua, 'Do People Have Standing? Indigenous Peoples, Global Warming, and Human Rights' (2009) 11 *Barry Law Review* 59; Sarah Schwemin, 'What if We Could Sue the Hurricanes? The Necessity of Recognizing the Rights of Natural Entities' (2009) 11 *Barry Law Review* 95 and Cormac Cullinan, 'If Nature Had Rights What Would People Need to Give Up?' (2008) <<http://www.orionmagazine.org/index.php/articles/article/500>>.

¹⁰⁸ Patricia Siemen, 'Earth Jurisprudence: Toward Law in Nature's Balance' (2009) 11 *Barry Law Review* 1 and Glen Peter Ahlers, 'Earth Jurisprudence: A Pathfinder' (2009) 11 *Barry Law Review* 121. See also Peter Burdon, 'Wild Law: The Philosophy of Earth Jurisprudence' 35(2) 2010 *Alternative Law Journal* 62 and Peter Burdon 'The Jurisprudence of Thomas Berry', (2011) 11 *Worldviews: Global Religions, Culture, and Ecology* (forthcoming).

¹⁰⁹ Patrick Tolan, 'Ecocentric Perspectives on Global Warming: Toward an Earth Jurisprudence' (2008) 1(4) *Global Studies Journal* 39 and United Kingdom Environmental Law Association, *Wild Law: Is There Any Evidence of Earth Jurisprudence in Existing Law and Practice* (2009) <http://www.Earthjurisprudence.org/documents/WildLaw_Report.pdf>.

¹¹⁰ Barbra E Wall, 'Ethical Considerations for a New Jurisprudence: A Catholic Social Thought Perspective' (2009) 11 *Barry Law Review* 77; Judith E Koons, 'Earth Jurisprudence: The Moral Value of Nature' (2008) 25 *Pace Environmental Law Review* 263.

to this discourse and will focus on the areas of environmental philosophy, property theory and legal philosophy. The thesis brings together and owes a considerable intellectual debt to existing literature in each of these fields. While certainly important, this thesis does not have the capacity to contribute further to environmental law¹¹² or the rights of nature discourse.¹¹³

2. Environmental Philosophy

The fundamental ethical structure of Earth Jurisprudence is supported by different branches of environmental philosophy. Two of the most important are Aldo Leopold's 'land ethic'¹¹⁴ and the philosophy of deep ecology developed by Arne Næss.¹¹⁵ Both theories seek to move beyond the more common metaphysical focus of environmental philosophy and deconstruct the human/nature dichotomy advanced by anthropocentrism.

Historian Donald Fleming describes Leopold as 'the Moses of the conservation Impulse of the 1960's and 1970's' and credits him with 'handing down the Tablets of the Law' for this period.¹¹⁶ For Leopold conservation was a moral issue¹¹⁷ and he rejected the

¹¹¹ Judith E Koons, 'Earth Jurisprudence: The Moral Value of Nature' (2008) 25 *Pace Environmental Law Review* 263.

¹¹² Important work in this regard is being carried out by members of the Global Ecological Integrity Group <<http://www.globalecointegrity.net/>>. See in particular Laura Westra, *Living in Integrity* (1998), Klaus Bosselmann, *The Principle of Sustainability* (2008) and Laura Westra, Klaus Bosselmann and Richard Westra, *Reconciling Human Existence with Ecological Integrity: Science, Ethics, Economics and Law* (2008). See also Klaus Bosselmann and David Grinlinton (eds), *Environmental Law for a Sustainable Society* (2002).

¹¹³ See Peter Burdon 'The Rights of Nature: Reconsidered' (2010) 49 *Australian Humanities Review* 69 and Peter Burdon, 'Rights of Nature: The Theory' (2011) 1 *IUCN Environmental Law Journal* <http://www.iucnael.org/en/component/docman/doc_download/660-earth-rights-the-theory.html>.

¹¹⁴ Leopold, above n 88. See further Aldo Leopold, *The River of the Mother of God: and other Essays by Aldo Leopold* (1992). For an excellent description see Roderick Nash, *Wilderness and the American Mind* (2001) 182-199.

¹¹⁵ Arne Næss, *Ecology, Community and Lifestyle: Outline of an Ecosophy* (1993) and Arne Næss, *The Ecology of Wisdom: Writings by Arne Næss* (2010).

¹¹⁶ Donald Fleming 'Roots of the New Conservation Movement' (1972) 6 *Perspectives in American History* 18.

existing rationale for protecting nature, arguing that it was based on human need and utility.¹¹⁸ Instead, he sought to establish a ‘closer and deeper relationship’ with nature and advocated for recognition of its inherent value.¹¹⁹ Central to his ecological writing is the concept of ‘land community’. This concept is analogous to the concept of Earth community advanced in this thesis. As described by Leopold, nature is not a collection of distinct pieces, randomly located and operating independently. Instead, nature is an interrelated community of life. So complex and mysterious is this organic whole that Leopold often employed metaphors to describe it, noting that the land was a living organism.¹²⁰ Drawing on the emerging science of ecology, Leopold also argued that the land community emphatically included human beings.¹²¹ He notes, that people arose from the same process of Darwinian evolution as all other life forms. They drew minerals from the same rocks, drank the same water and breathed the same air. From this perspective, it made sense to consider humans as community members, just like other organisms.¹²²

Leopold begins his celebrated paper ‘The Land Ethic’ by noting: ‘There is as yet no ethic dealing with man’s relationship to the land and to the non-human animals and plants which grow upon it.’¹²³ Instead, he argues that ‘we abuse the land because we regard it as a commodity belonging to us.’¹²⁴ For Leopold, environmental ethics represents a body of self-imposed limitations to freedom,¹²⁵ which derive from the

¹¹⁷ Aldo Leopold, ‘Some Fundamentals of Conservation in the Southwest’ (1979) 1 *Environmental Ethics* 131.

¹¹⁸ Leopold, above n 117, 140.

¹¹⁹ *Ibid* 141.

¹²⁰ Eric T Freyfogle, *The Land We Share: Private Property and the Common Good* (2003) 136.

¹²¹ On the relationship between Leopold’s philosophy and ecology see Susan L Flander, *Thinking Like a Mountain: Aldo Leopold and the Evolution of an Ecological Attitude Toward Deer, Wolves and Forests* (1974).

¹²² Aldo Leopold, *For the Health of the Land: Previously Unpublished Essays And Other Writings* (2001) 56.

¹²³ Leopold, above n 88, 238.

¹²⁴ *Ibid* xviii.

¹²⁵ See also Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (1984). Jonas argues that the power of human beings to cause harm through technology provides a rational basis for a restriction of human freedom.

recognition that 'the individual is a member of a community of interdependent parts.'¹²⁶ 'The Land ethic', he explained, 'simply enlarges the boundaries of the community to include soils, waters, plants and animals or collectively the land.'¹²⁷ It demands that questions regarding human relationships with the environment be studied 'in terms of what is ethically and aesthetically right, as well as what is economically expedient.'¹²⁸ According to this view 'a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community' and 'wrong when it tends to do otherwise.'¹²⁹ In advocating this ethic, Leopold sought to change the role 'of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it.'¹³⁰ He contends, 'when we see the land as a community to which we belong, we may begin to use it with love and respect.'¹³¹

Consistent with Leopold's land ethic, deep ecology provides a compelling critique of the anthropocentric paradigm.¹³² The most important contribution to the theoretical development of deep ecology came from its progenitor, Arne Næss. Næss developed deep ecology as a combination of ecology and philosophy.¹³³ He describes deep ecology as involving both philosophical and religious principles that seek to evolve the

¹²⁶ Leopold, above n 88, 239.

¹²⁷ Ibid 240.

¹²⁸ Ibid 260.

¹²⁹ Ibid. See Berry, above n 30, 13. Berry explains his ethical outlook with reference to an early experience as a child in a meadow. He writes: 'Whatever preserves and enhances this meadow in the natural cycles of its transformation is good; whatever opposed this meadow or negates it is not good. My life orientation is that simple. It is also that pervasive. It applies to economics, and political orientation as well as in education and religion.'

¹³⁰ Leopold, above n 88, 240

¹³¹ Ibid xviii- xix.

¹³² For an overview see Sessions, above n 82.

¹³³ Arne Næss, 'The Shallow and the Deep, Long-Range Ecology Movement: A Summary' (1973) 16 *Inquiry* 95 and Arne Næss, 'The Deep Ecology Movement: Some Philosophical Aspects' (1986) 8 *Philosophical Inquiry* 10.

relationship between human beings and the Earth.¹³⁴ The essence of deep ecology is to ask searching questions about human life, society and nature. For example, Næss explains: 'we ask why and how, where others do not...ecology as a science does not ask what kind of a society would be the best for maintaining a particular ecosystem – that is considered a question for value theory, for politics, for ethics.'¹³⁵ Further, in contrast to the 'shallow ecology movement', which is concerned largely with 'the health and affluence of people' in the developed world, the deep ecology movement endorses ecological egalitarianism.¹³⁶ This position contends that every form of life has the right to function normally in the ecosystem – or as Næss explains, the 'equal right to live and blossom' and pursue their own definition of happiness.¹³⁷

Both Leopold's 'land ethic' and the philosophy of deep ecology provide valuable support to the concept of Earth community advanced in this thesis. Their usefulness is limited, however, by the fact that neither Leopold nor many proponents of deep ecology have sought to apply their reasoning to legal philosophy. Further, with the exception of several notable theorists,¹³⁸ these sources remain under-theorised within the legal academy. Finally, where analysis has occurred, it has not always been met favourably. For example, Nicole Graham argues that 'ecocentrism offers nothing more than an inversion of the hierarchical value or position of the paradigmatic categories nature/culture and thus does not so much depart from anthropocentrism as mirror it through opposition.'¹³⁹ While this argument is contestable, it is amplified by the fact that many proponents of Earth Jurisprudence fail to give a detailed account of what they

¹³⁴ Deep ecology draws heavily on the philosophical writing of Dutch philosopher Baruch Spinoza. See George Sessions, 'Spinoza and Jeffers on Man in Nature' (1977) 20 *Inquiry* 481 and Arne Næss, *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (1975).

¹³⁵ Næss, above n 115, 96

¹³⁶ *Ibid.*

¹³⁷ Bill Devall and George Sessions, *Deep Ecology: Living as if Nature Mattered* (2001) 69.

¹³⁸ For Leopold see Freyfogle, above n 120. For Deep Ecology see Bosselmann, above n 30.

¹³⁹ Graham, above n 33, 18.

mean by Earth community and holistic ethics.

To describe Earth community, the thesis brings together and interprets a range of scientific disciplines including quantum physics,¹⁴⁰ ecology,¹⁴¹ autopoiesis¹⁴² and Gaia theory.¹⁴³ Rather than conducting new scientific analysis, it combines insights from these disciplines to both clarify and support the description of Earth community articulated above.¹⁴⁴ It argues that this concept does not simply invert a hierarchy of value. Rather, it positions human beings as one part of a broader community and highlights the importance of integration and mutual dependence. As Berry notes, Earth community refers to 'the interacting complexity of all of Earth's components, entities and processes, including the atmosphere, hydrosphere, geosphere, biosphere and mindsphere.'¹⁴⁵

3. Property Theory

One important way Western law reflects anthropocentrism is by defining nature as the object of human property relationships – predominately private property.¹⁴⁶ Conceived in this way, nature is an *object*, which exists to satisfy the needs, wants or even the desires of human *subjects*. While many advocates of Earth Jurisprudence lament this

¹⁴⁰ Fritjof Capra, *The Web of Life: A New Scientific Understanding of Living Systems* (1997) and Werner Heisenberg, *Physics and Philosophy: The Revolution in Modern Science* (2007).

¹⁴¹ Eugene Odum, *Fundamentals of Ecology* (1971).

¹⁴² Humberto Maturana and Francisco Varela, *Autopoiesis and Cognition: The Realization of the Living* (1980).

¹⁴³ James Lovelock and Lynn Margulis, 'Biological Modulation of the Earth's Atmosphere' (1974) 21 *Icarus* 471.

¹⁴⁴ See page 18.

¹⁴⁵ Berry and Swimme, above n 76, 280. Note that the term 'mindsphere' can be used interchangeably with 'noosphere' to denote a sphere of human thought. See further Pierre Teilhard de Chardin, *The Phenomenon of Man* (2008).

¹⁴⁶ Private property represents the highest form of landownership in Australia (and most Western countries) making up 70 percent of fee simple holdings. See further Australian Bureau of Statistics on Land Ownership and Land Use from Yearbook Australia (2002) <<http://www.abs.gov.au/>>. In the United States, 60% of land is held privately and this number increases to 75% if Alaska is excluded. See further Eric T. Freyfogle, *On Private Property: Finding Common Ground on the Ownership of Land* (2007) x.

status, few go on to consider the environmental implications of this construction.¹⁴⁷ There is even less analysis on the possible implications of ecocentrism for private property. Those who do engage in this issue, view private property as inconsistent with ecocentrism and advocate for its removal.¹⁴⁸ However, such arguments do not address the physical need human beings have to access and use parts of nature. Nor do they address more complex arguments relating to personhood¹⁴⁹ or cultural aversion to abandoning the institution of private property.¹⁵⁰

To analyse these issues this thesis engages with the discipline of property theory. Regarding the distinction between property theory and the institution of property, Laura Underkuffler notes: 'Property is how people envision it – that is, what concept they have of it' and also a 'social, political and legal institution, implemented to resolve particular conflicts in society.'¹⁵¹ By focusing on the concept of private property, this thesis aims to provide greater analysis of the fundamental concepts and cultural narratives upon which the institution of property is built. As a social institution, this approach also provides a unique perspective on how the internal characteristics of property adapt and change.

¹⁴⁷ Cullinan, above n 4, 161-171.

¹⁴⁸ Ibid 169-170. See also Thomas Linzey, *Be The Change: How To Get What You Want In Your Community* (2009) and Thomas Linzey, 'Of Corporations, Law, and Democracy: Claiming the Rights of Communities and Nature' (2005) <http://www.smallisbeautiful.org/publications/linzey_06.html>. Linzey expressly advocates a separation arguing: 'we must turn a property-and-commerce constitution into a rights-and-nature constitution.'

¹⁴⁹ Berry, above n 1, 150. Here Berry argues: 'In a special manner, humans have not only a need for but also a right of access to the natural world' to provide for (amongst other things) 'the wonder needed by human intelligence, the beauty needed by human imagination and the intimacy needed by human emotions for personal fulfilment.' See also Margaret Jane Radin, 'Property and Personhood' (1982) 34 *Stanford Law Review* 957.

¹⁵⁰ Joseph William Singer notes: 'At the start of the twenty-first century, faith in private property as a mode of social and economic organisation is as strong as it has ever been', *Entitlement: The Paradoxes of Property* (2000) 1. See also Eric T Freyfogle, 'Private Property in Land: An Agrarian View' in Norman Wirzba (ed), *The Essential Agrarian Reader: The Future of Culture, Community and the Land* (2003) 237. Wendell Berry speaks highly of private property for the security and longevity it provides and the corresponding incentive to become stewards of place, see 'The Boundary' in *That Distant Land: The Collected Stories* (2005) 289-308.

¹⁵¹ Laura S Underkuffler, *The Idea of Property: Its Meaning and Power* (2003) 121.

In recent decades, property theory has undergone something of a renaissance in interest and development.¹⁵² Increased attention has provided greater conceptual clarity and understanding of the internal components of private property. Analysis has focused on the distribution,¹⁵³ morality,¹⁵⁴ and social origins¹⁵⁵ of private property. Alongside these concerns there is a growing (though still under-theorised) concern regarding the relationship between private property and environmental harm.

One important contribution to this debate is Graham's book *Landscape*. Graham's critique of property is concerned exclusively with the period following the scientific revolution and does not attempt to draw an explicit connection between private property and environmental harm. However, she does comment directly on the relationship between private property and anthropocentrism, arguing: 'The paradigm of modern European property relations is anthropocentric.'¹⁵⁶ She contends further that private property embodies a 'dichotomous model of the world that separates people from everything else, placing them in an imagined centre, their environment literally surrounds and is peripheral to them.'¹⁵⁷ Graham argues that the anthropocentric separation of humans and nature is reflected in the contemporary description of property as pertaining to abstract rights held between human beings and not real or

¹⁵² Notable works include Jeremy Waldron, *The Right to Private Property* (1987); Stephen Munzer, *A Theory of Property* (1990); JW Harris, *Property and Justice* (1996) and James Penner, *The Idea of Property in Law* (1997).

¹⁵³ Karl Marx, 'Proletarians and Communists' and Jeremy Bentham, 'Security and Equality of Property' in CB Macpherson (ed), *Property: Mainstream and Critical Positions* (1999).

¹⁵⁴ Underkuffler, above n 151. See also Laura Underkuffler-Freund, 'Property: A Special Right' (1996) 1 *Notre Dame Law Review* 1033; David Lametti 'The Concept of Property: Relations through Objects of Social Wealth' (2003) 53 *University of Toronto Law Journal* 325; David Lametti, 'Property and (Perhaps) Justice' (1998) 43 *McGill Law Journal* 665; David Lametti, 'The Morality of James Harris's Theory of Property' in Timothy Endicott, Joshua Getzler and Edward Peel (eds), *The Properties of Law: Essays in Honour of James Harris* (2006).

¹⁵⁵ Joseph William Singer, *The Edges of the Field: Lessons on the Obligations of Ownership* (2000); Singer, above n 150 and Joseph William Singer and Jack Beermann, 'The Social Origins of Property' (1993) 6 *Canadian Journal of Law and Jurisprudence* 217.

¹⁵⁶ Graham, above n 33, 4. See also Nicole Graham, 'Restoring the 'real' to Real Property Law' in Wilfred Press (ed), *Blackstone and His Commentaries: Biography, Law, History* (2009).

¹⁵⁷ Graham, above n 33, 4.

tangible items.¹⁵⁸ She argues that this 'dephysicalisation' of property is evident in historical¹⁵⁹ and modern¹⁶⁰ descriptions of property, including legal textbooks.¹⁶¹

Commenting on these sources, Graham argues that theories of private property present 'abstract analyses of legal developments rather than legal interactions and impressions in physical places.'¹⁶² Place and the physical 'thing' that is the subject matter of a property relationship are considered irrelevant. This enables private property to be transported across the globe and entrenched in foreign landscapes. Graham demonstrates the 'biogeographical' consequence of the expansion of English real property law and considers numerous examples where law was imposed upon a landscape without reference to its unique geographical or ecological characteristics.¹⁶³ She writes: 'The law was not adapted to the land, rather the land was adapted to the law.'¹⁶⁴ Put another way, property law is blind to the specific physical environment upon which it operates. Further, she contends that it is 'essential to property law's performativity' that it should be so blind.¹⁶⁵

Paul Babie also makes a significant contribution to the discourse on private

¹⁵⁸ This led Kevin Grey to conclude that physical property did not exist at all. See Kevin Grey, 'Property in Thin Air' (1991) 50 *Cambridge Law Journal* 252. See also Alain Pottage, 'Instituting Property' (1998) 18 *Oxford Journal of Legal Studies* 331. Pottage argues that it is the representation of property, not the property itself that is abstract.

¹⁵⁹ See in particular, John Locke, *Two Treatise of Government* (1970) [first published 1689] and Sir William Blackstone, *The Commentaries on the Laws of England* (1966) [first published 1796]. Both theories of property speak to the placelessness and transportability of private property.

¹⁶⁰ Wesley Newcomb Hohfeld, 'Some Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1913) 23 *Yale Law Journal* 16; (1917) 26 *Yale Law Journal* 710.

¹⁶¹ Peter Butt, *Land Law* (2001) and Joseph William Singer, *Introduction to Property* (2005). Singer is explicit on this point and opens his textbook with the words: 'Property concerns legal relations among people regarding control and disposition of valued resources. Note well: Property concerns relations *among people*, not relations between people and things.'

¹⁶² Nicole Graham, *Landscape: Paradigm and Place in Australian Property Law* (PhD Thesis, The University of Sydney, 2003) 23.

¹⁶³ See for example the discussion of agriculture in Graham, above n 33, 190-197. For a classic example see Marc Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (2003).

¹⁶⁴ Graham, above n 33, 183.

¹⁶⁵ *Ibid* xi.

property and environmental harm.¹⁶⁶ He argues explicitly that ‘the current ecological crisis can be traced to the very foundation concept that drives the Western political-philosophical view of the world, which, sadly in more recent times, has in one way or another permeated every society on Earth.’¹⁶⁷ Babie contends that the concept in question is ‘private property’ and that it is ‘part of the global mind-set that influences our management and use of the Earth and its natural resources.’¹⁶⁸ For Babie, the fundamental issue is not anthropocentrism but liberal ‘choice’.¹⁶⁹ He notes that as a political philosophy, liberalism is concerned with promoting and protecting individual freedom. Private property is the vehicle that liberalism uses to achieve this objective and promotes choice in the use and allocation of goods and resources *over* obligations to the human community or greater ecological community.¹⁷⁰

Babie’s argument builds on the scholarship of Joseph William Singer who describes the liberal concept of private property under the heading ‘ownership model.’¹⁷¹ Singer argues that by preferencing ownership rights over obligations, the liberal concept ‘presumes that most uses of property are self-regarding’ and that non-owners have ‘no legitimate claim to control what the owner does with [their] own property.’¹⁷² In this view, freedom to use and control ones property is thought to promote both economic efficiency and personal autonomy. Singer argues however, that the ownership model is misleading and morally deficient:

By conceiving property as ownership, we invite others to use their property without regard to the

¹⁶⁶ Paul Babie, *Private Property, Climate Change and The Children of Abraham* (2011).

¹⁶⁷ Paul Babie, ‘Private Property, the Environment and Christianity’ (2002) 15 *Pacifica: Australasian Theological Studies* 307: 308.

¹⁶⁸ *Ibid.*

¹⁶⁹ See Waldron, above n 152, 31-40.

¹⁷⁰ Paul Babie, ‘Climate Change and the Concept of Private Property’ in Rosemary Lyster (ed), *Reveling in the Wilds of Climate Change Law* (2011) 4-5. See also Paul Babie, ‘Private Property and Human Consequence’ in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

¹⁷¹ Singer, above n 150, 3. See further Murray Raff, ‘Environmental Obligations and the Western Liberal Property Concept’ (1998) 22 *Melbourne University Law Review* 657.

¹⁷² Singer, above n 150, 4.

needs of others. We encourage them to consider their self-interest alone – to act as if no one existed but themselves.¹⁷³

As distinct from the present thesis though, both Babie and Singer are concerned exclusively with human beings and social relationships. Singer, in particular, does not consider the implications of his ‘ownership model’ on the environment. Unlike Graham, neither of these theorists expressly acknowledges or engages with the subject/object dichotomy promoted by anthropocentric conceptions of private property. Further, neither writer engages with ecocentric ethics or considers the idea that human beings have duties toward nature itself.¹⁷⁴

Some theorists however, do address the environment in their critique of private property. Indeed, while still modest, there is a growing body of literature that seeks to merge environmental philosophy and property theory.¹⁷⁵ The most visible contributor to an ecocentric concept of private property is Eric T Freyfogle.¹⁷⁶ Deeply influenced by the writing of Aldo Leopold¹⁷⁷ and his concept of ‘land community’, Freyfogle presents private property as an evolving social construct. In opposition to the dominant liberal

¹⁷³ Singer, above n 150, 6.

¹⁷⁴ On this point see Murray Raff, *Private Property and Environmental Responsibility* (2003) 159-185 and Murray Raff, ‘Toward an Ecologically Sustainable Property Concept’ in Elizabeth Cooke (ed), *Modern Studies in Property Law* (2005) 65.

¹⁷⁵ See for example, Joseph Guth, ‘Law for the Ecological Age’ (2008) 9 *Vermont Journal of Environmental Law* 431; John Meyer, ‘The Concept of Private Property and the Limits of the Environmental Imagination’ (2009) 37(1) *Political Theory* 99; Tony Arnold, ‘The Reconstitution of Property: Property as a Web of Interests’ (2002) 26 *Harvard Environmental Law Review* 281; David Hunter, ‘An Ecological Perspective on Property’ (1988) 12 *Harvard Environmental Law Review* 311; Peter Byrne, ‘Green Property’ (1990) 7 *Constitutional Commentary* 239; Joseph Sax, ‘Property Rights and the Economy of Nature’ (1993) 45 *Stanford Law Review* 201; Terry Frazier, ‘The Green Alternative to Classical Liberal Property Theory’ (1995) 20 *Vermont Law Review* 299; Terry Frazier, ‘Protecting Ecological Integrity within the Balancing Function of Property Law’ (1998) 28(1) *Environmental Law* 53; Lynda Butler, ‘The Pathology of Property Norms: Living Within Nature’s Boundaries’ (2000) 73 *Southern California Law Review* 927 and Carl Circo, ‘Does Sustainability Require a New Theory of Property Rights?’ (2009) 58(1) *University of Kansas Law Review* 91.

¹⁷⁶ See Freyfogle, above n 120; Eric T Freyfogle, *Justice and Earth: Images of Our Planetary Survival* (1993); Eric T Freyfogle, *Bounded People, Boundless Lands: Envisioning A New Land Ethic* (1998) and Eric T Freyfogle, *On Private Property: Finding Common Ground on the Ownership of Land* (2009).

¹⁷⁷ Eric T Freyfogle, ‘The Sand County Almanac at 50 (2000) 30 *Environmental Law Reporter* 10058; ‘The Land Ethic and Pilgrim Leopold’ (1990) 61 *University of Colorado Law Review* 217 and ‘Leopold’s: The Farmer as Conservationist’ in T Rice (ed), *People and Prairies: Caring for Where We Live* (1999).

'ownership model' he argues that the public have an interest in private property and that the institution can only be justified if it promotes the aggregate common good for human beings.¹⁷⁸ Freyfogle measures the common good in utilitarian terms and with reference to human interconnectedness with nature.¹⁷⁹ He writes that:

[P]rivate property is justified only insofar as it promotes the aggregate good of all. The communal good is fostered when people are able to thrive freely as individuals, but it is also often aided by laws that constrain individuals from acting in socially harmful ways.¹⁸⁰

Freyfogle argues that a full description of private property (or good land use) needs to take into consideration human beings, ethics and the item of property itself.¹⁸¹ Freyfogle's writing is deliberately responsive to the dominant positive interpretation of law. In this sense, his analysis is an example of particular jurisprudence¹⁸² and addresses itself largely to American private property in land and takings law pursuant to the fifth amendment of the United States Constitution. In taking a particular and positivist position he does not consider nor advocate for an alternative interpretation of law. Further, while Freyfogle remains faithful to Leopold's land ethic, it is questionable whether his utilitarian human focus allows him to escape completely from the trappings of anthropocentrism and embrace the land community as the primary focus of human affairs.

¹⁷⁸ Freyfogle, above n 120, 230.

¹⁷⁹ Ibid 206-207.

¹⁸⁰ Ibid 208. See also Jennifer Nedelsky, 'Reconciling Autonomy: Sources, Thoughts and Possibilities' 1 (1989) *Yale Journal of Law and Feminism* 7.

¹⁸¹ See Eric T Freyfogle, *Why Conservation Is Failing and How It Can Regain Ground* (2006) 144-177.

¹⁸² Particular jurisprudence is a method of exploring law by considering only how it applies to a particular political-legal context. See William Twining, *General Jurisprudence: Understanding Law from a Global Context* (2009).

4. Legal Theory

While Western theories of law tend to be predominately anthropocentric, existing scholarship offers conceptual tools and frameworks, which this thesis contends, can be adapted to serve the goals of Earth Jurisprudence.¹⁸³ To begin, Earth Jurisprudence is described as a branch of critical theory and investigates the role of law in legitimating particular social relations and illegitimate hierarchies.¹⁸⁴ The illegitimate hierarchy investigated in this thesis is anthropocentrism. Following the critical method further, this thesis also looks at how anthropocentrism can be undermined and ultimately replaced with the ecocentric concept Earth community.¹⁸⁵

Earth Jurisprudence is also described in this thesis as a theory of Natural Law. This description draws on the writing of Thomas Aquinas,¹⁸⁶ the neo-Thomist Natural Law tradition¹⁸⁷ as well as the secular Natural Law writing of Lon Fuller.¹⁸⁸ Aquinas advocates for the existence of four types of 'law' – Eternal Law,¹⁸⁹ Natural Law,¹⁹⁰ Divine Law¹⁹¹ and Human Law – that are organised in a hierarchy. These categories are described in detail in chapter four. Aquinas describes Human Law as rules, supportable by reason and articulated by human authorities for the common good of human beings.¹⁹² Under this construction, human law derives its legal quality and authority from

¹⁸³ The author has been alerted to Michael Schröter, *Mensch, Erde, Recht: Grundfragen ökologischer Rechtstheorie* (1999) however this text could not be found in English.

¹⁸⁴ Mark Kelman, *A Guide to Critical Legal Studies* (1990). Note that Critical Legal Studies said very little themselves on the environment and were more interested in issues concerning class, race, gender, and sexuality.

¹⁸⁵ On critical method see Freeman, above n 67 (2008), 1287.

¹⁸⁶ Thomas Aquinas, *Treatise on Law: Summa Theologica, Questions 90-97* (1996).

¹⁸⁷ John Finnis, *Natural Law and Natural Rights* (1980).

¹⁸⁸ Lon Fuller, *The Morality of Law* (1964). See also Lon Fuller, 'Human Purpose and Natural Law' 53 (1956) *Journal of Philosophy* 697. Note that Fuller described the purpose of law in terms of 'order', 'good order' and 'justice'.

¹⁸⁹ God-given rules that govern all of creation.

¹⁹⁰ A segment of the eternal law that is discoverable through a special process of reasoning involving intuition, reason and deductions drawn therein.

¹⁹¹ Rules derived from scripture.

¹⁹² Aquinas, above n 186, 6.

the 'higher' Natural Law. Any law that fails to attain legal quality is a corruption of law and not morally binding on a populace.¹⁹³

This point is developed further by John Finnis who argues that law has a focal meaning or ideal form, to which actual law is a mere striving or approximation.¹⁹⁴ He argues further that the central case of law is a 'complete community' defined as 'an all-round association' that includes the 'initiatives and activities of individuals, of families and of the vast network of intermediate associations.'¹⁹⁵ Like both Aquinas and Fuller, Finnis describes law as purposive. He argues that the purpose of law is to secure the common good or – the 'ensemble of material and other conditions that tend to favour the realisation, by each individual in the community, of his or her personal development.'¹⁹⁶ Finnis contends that this is the true purpose of law and any rule that conflicts with this goal is not a law in the focal sense of the term and are 'less legal than laws that are just.'¹⁹⁷

The interpretation of Earth Jurisprudence advanced in this thesis recognises four points of distinction with traditional Natural Law theories: (i) the legal categories advanced by both philosophies have fundamentally different content. Earth Jurisprudence considers the concept Earth community to be integral to our idea of law and legal concepts. In contrast, the term 'nature' in traditional Natural Law philosophy refers to human nature or reason; (ii) Earth Jurisprudence critiques the limited scope of 'common good' advanced in Natural Law philosophy and seeks to extend the term to reflect the concept of Earth community; (iii) Earth Jurisprudence is informed by scientific

¹⁹³ Aquinas, above n 186, 10-11. The notion of 'common good' is also advanced by Finnis, above n 187, 141-143.

¹⁹⁴ Finnis, above n 187, 11.

¹⁹⁵ *Ibid* 147.

¹⁹⁶ *Ibid* 154.

¹⁹⁷ *Ibid* 279.

analysis. This is distinct from Natural Law philosophy, which appeals to non-verifiable and subjective moral reasoning; and (iv) Earth Jurisprudence does not seek to cover the ambit of moral philosophy and recognises that in some circumstances it may have a reduced or no role. Its most obvious application is in regard to legal concepts that govern human-Earth interactions, such as the institution of private property discussed in chapter five. This selective application is in contrast to modern descriptions of Natural Law philosophy, which position themselves as exclusive and absolute.¹⁹⁸

III. STRUCTURE: AN OVERVIEW OF THE STUDY

Beyond this introduction the thesis consists of five substantive chapters and a conclusion. The following chapter overviews sketch an outline of the central arguments.

Chapter Two – Anthropocentrism and Private Property

Chapter two argues that the concept of private property reflects anthropocentric ideas and promotes environmental harm. To support this argument, it examines three important periods in the development of private property from antiquity, the scientific revolution and the influence of modern liberal theory.

Beginning in antiquity, it argues that the fundamental starting point for Western theories of property is human dominion over nature. The cultural roots of this perception can be traced back to Greek Stoic philosophy and the writing of Plato and Aristotle. Aristotle for example argued that all of nature was organised in a hierarchy

¹⁹⁸ See for example the basic good and requirements for reasonableness described by Finnis, above n 187, 59-133. Finnis maintains that his theory represents an exhaustive list, see 90-92.

with the physical environmental and non-human animals representing instruments for human use and happiness. This argument was influential for Roman Stoic jurists who constructed the first sophisticated legal definition of property in the concept dominion. This concept was then developed by Christian jurists who blended Roman law with their own mythology concerning human dominium over nature. Despite enormous progression, Western theories of property have never shifted away from this basic starting point and continue to define nature as the object of human property relationships.

Following antiquity, the scientific revolution had a significant impact on Western theories of property. Increasingly during this period nature came to be seen in mechanistic terms or as a lifeless machine. This worldview directly influenced philosophical writings on property and promoted the removal of environmental protections during the industrial revolution. Industrial progress required new property laws to allow greater exploitation and ancient Natural Law protections were discarded in favour of economic progress. These changes were captured in the writing of Jeremy Bentham and Wesley Newcomb Hohfeld who constructed private property as a person-person relationship. Property became divorced from the physical and the notion of inherent limits on property were removed in favour of whatever regulation (if any) was prescribed by positive law.

Finally, this section considers how private property developed in the context of liberal political philosophy. Liberalism promotes individual freedom or choice without necessarily placing any duties to human society or to the environment. The liberal theory of private property is the ultimate product of anthropocentric thinking and invites owners to live as though only their individual interests matter. In the absence of

external regulation, the liberal concept of private property encourages owners to maximise self-interest. This conception of private property is misleading and promotes environmental harm. Indeed, property choices take place in a vast interconnected network of human and ecological relations. Our choices do not occur in a vacuum and instead have very real and immediate consequence for other human beings and the broader environment.

Chapter Three – Earth Community

Chapter three advances an alternative foundation for law based on the ecocentric concept of Earth community. To support this concept, it brings together and interprets scientific theories contained within quantum physics, ecology, autopoiesis and Gaia theory. Contrary to anthropocentric philosophy, each of these disciplines illustrates the profound interconnectedness and dependence of nature. At a micro level, quantum physics demonstrates that particles do not exist independently and are best described in terms of interconnectedness. This insight is reproduced at the macro level in ecology and the concept of ecosystem. This concept expressly positions human beings as one part of an ecological community and shifts our understanding of nature from a hierarchy, to an assemblage of entities (both living and nonliving) bound into a functional whole by mutual relationships. Finally, the concept of autopoiesis and Gaia Theory illustrates how Earth's interconnected parts play a critical role in regulating the internal consistency or homeostasis of Earth.

The chapter argues that it is not sufficient to put forward an alternative worldview and assume that it will influence law. Instead, an explanation must also be

provided that explains how this worldview can become assimilated and infused in law. This process is discussed with reference to the 'new story' proposed by Thomas Berry. This story describes the scientific insights outlined in part one of this chapter in narrative form and offers an alternative cosmology for Western culture. This discussion is premised on the interpretation of law as a reflection of culture or a 'magic mirror'. Indeed, just as existing legal concepts such as the concept of private property have emerged from a cultural context, so to future legal concepts will be shaped by the culture that articulates them. To this end, Berry's 'new story' seeks to provide the foundation for a paradigm shift in law from anthropocentrism to ecocentrism.

Chapter Four – Earth Jurisprudence

Building on the paradigm shift in law advocated in chapter three, this chapter presents an original interpretation of the theory of Earth Jurisprudence. It also positions Earth Jurisprudence alongside other legal philosophies such as Natural Law and Legal Positivism.

As interpreted in this thesis, Earth Jurisprudence posits the existence of two types of 'law' organised in hierarchical relationship. At the top of the hierarchy is the Great Law, which represents the principle of Earth community. Beneath the Great Law is Human Law, which represents rules articulated by human authorities, which are consistent with the Great Law and enacted for the common good of the comprehensive Earth community. In regard to the interrelationship between these legal categories, two points are critical. First, Human Law derives its legal quality from the Great Law. In this function, the Great Law is best understood as providing the design parameters, beyond

which a legislature may not cross. Second, a purported law that contravenes the Great Law is considered defective and not morally binding on a population. In this instance, Earth Jurisprudence offers a legal justification for acts of civil disobedience aimed at reforming a defective law.

Chapter Five –Private Property: Revisited

Chapter five returns full circle to the concept of private property and describes how Earth Jurisprudence could influence its future development. Rather than discarding private property as a social institution, this chapter presents a reformist analysis that seeks to give private property radically new content. This approach recognises that private property is an indeterminate concept with many potential incarnations. While the institution currently reflects an anthropocentric heritage and liberal rights-based values, it can also be conceived to reflect ecocentric ideas such as the concept of Earth community. Indeed, this chapter describes private property as a relationship between and among members of the Earth community, through tangible or intangible items.

Under this construction, private property is socially situated and property freedoms are contingent on their impact on others within the community. Further, obligations and responsibilities are inherent to the institution. These duties represent a deliberate limitation of human freedom, derived from the concept of Earth community and the great potential human beings have to devastate the environment. Finally, the concept of private property offered in this chapter places specific importance on the item of property itself. That is – private property is a relationship facilitated by a specific item of property. Conceived in this way, the object of a property relationship plays a key role

in shaping the types of use-rights and responsibilities that attach to a specific item of private property. For land, ownership would shift from the present right-based agenda to an unfolding practice that bends to reflect place and treats nature as a coequal subject rather than an object. This chapter concludes that under the theory of Earth Jurisprudence, a concept of private property that overlooks any of these considerations is defective.

CHAPTER TWO

ANTHROPOCENTRISM AND PRIVATE PROPERTY

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I. INTRODUCTION

Pleased as we are with the possession, we seem afraid to look back to the means by which it was acquired, as if fearful of some element in our title; or at best we rest satisfied with the decision of the laws in our favour, without examining the reason or authority upon which those laws have been built.¹

This thesis contends that the institution private property is anthropocentric and is contributing to the present environmental crisis. To establish this argument, this chapter explores the legal-philosophical concept of private property² and considers how it embodies anthropocentric assumptions. Private property is prioritised over other areas of law because it plays a key role in governing human interactions with the environment³ and because it contains some of law's key messages about nature and our place within it.⁴ Further, developing an understanding of the ideas that underpin the institution of private property is critical for its future reform. The task of adapting private property toward ecocentric ethics and the legal philosophy of Earth Jurisprudence is undertaken in chapter five.

This chapter presents private property as an indeterminate concept⁵ that is influenced by economic, legal, religious and philosophical ideas.⁶ As C Edwin Baker contends: 'Property rights are a cultural creation and a legal conclusion.'⁷ From this perspective, private property lacks an in-built unitary structure that can be discovered

¹ Sir William Blackstone, *The Commentaries on the Laws of England* (1966) [first published 1796] 1.

² In regard to the distinction between the concept of private property and the institution of private property see Laura Underkuffler, *The Idea of Property: Its Meaning and Power* (2003) 121.

³ See Paul Babie, 'Private Property, the Environment and Christianity' (2002) 15 *Pacifica: Australasian Theological Studies* 307 and Paul Babie, 'Private Property: the Solution or the Source of the Problem?' (2010) 2(2) *Amsterdam Law Forum* <<http://ojs.uvu.vu.nl/alf/article/view/124>>.

⁴ Eric T Freyfogle, *Justice and the Earth: Images of Our Planetary Survival* (1993) 50.

⁵ Not certain, fixed, or established.

⁶ There is an alternative perspective on this issue, which holds that there is an objective or true concept of private property. Such theorists commonly hold that their construction of private property is the only interpretation. Richard Epstein for example describes private property in essentialist terms, arguing that private property means: 'the exclusive rights of possession, use and disposition' *Takings: Private Property and the Power of Eminent Domain* (1985) 304.

⁷ C Edwin Baker, 'Property and its Relation to Constitutionally Protected Liberty' (1986) 134 *University of Pennsylvania Law Review* 741.

through descriptive analysis or logical deduction. Thus, rather than presenting an absolute definition of private property, this chapter aims to construct a composite picture or 'collage' of private property ideas⁸ and highlight the cultural norms upon which the modern institution is built.

This chapter begins by positing that the starting premise for Western theories of private property is human dominion over nature. It traces the origin of this concept in Greek philosophy and considers its application in Roman law. It also considers how this concept was developed by Christian jurists with reference to the myth of dominium as depicted in the bible. Following this analysis, this chapter investigates the influence of the scientific revolution and the scientific method on Western attitudes toward nature. It further analyses how theories of private property changed during the industrial revolution to promote economic growth and how property came to be defined as a person-person relationship. Finally, this chapter investigates how liberal political theory influenced the development of private property. In particular, it demonstrates how private property came to focus on the individual and the maximisation of choice without corresponding duties or obligations to the human or ecological community.

⁸ Margaret Davies, *Property, Meanings, Histories, Theories* (2007) 3.

II. DOMINION

If the world was made for us, then it belongs to us and we can do what we damn well please with it.⁹

The fundamental starting premise for Western theories of property is that human beings have dominion over nature and that nature is the object of human property relationships. English jurist Lord Scarman provides evidence of this premise in the opening chapter of his commentary on English Law. He writes: 'For environment, a traditional lawyer reads property.'¹⁰ In support Eric T Freyfogle notes: 'When lawyers refer to the physical world, to this field and that forest and the next-door city lot, they think and talk in terms of property and ownership.'¹¹ English common law has evolved principally to protect the private property rights and economic interests of owners.¹² Property rights can exist directly over nature (incorporating both land and non-human animals)¹³ or over products derived from nature that exist in some synthetic form such as a pen.¹⁴

From the outset it is important to establish that the perception of nature as human property is a cultural construct.¹⁵ To be clear – it is not the case that nature is inherently separate from human beings or that nature must out of necessity be understood in an instrumental way. Rather, this is just one of multiple possible ways to understand the relationship between human beings and the environment. Perhaps the simplest way to understand this point is by comparison with another statement on

⁹ Daniel Quinn, *Ishmael: An Adventure of the Mind and Spirit* (1995) 21.

¹⁰ Leslie Scarman, *English Law: The New Dimension* (1975) 59.

¹¹ Eric T Freyfogle, *Justice and the Earth: Images for our Planetary Survival* (1993) 49.

¹² Gerry Bates, *Environmental Law in Australia* (2002) 20.

¹³ Note that it was once considered legitimate to claim possession and ownership of human beings. See Silvana Siddali, *From Property To Person: Slavery And The Confiscation Acts, 1861-1862* (2005). For a discussion on non-human animals and property see Gary Francione, *Animals Property and The Law* (2005).

¹⁴ For clarity and due to word limit this chapter focuses on the land and non-human animals rather than human made products derived from nature.

¹⁵ On this point see Neil Evernden, *The Social Creation of Nature* (1992).

nature from Tanganekald-Meintangk¹⁶ woman Irene Watson. Watson's comments are valuable because they are in regard to a piece of land near where this thesis was written and which is currently defined legally as private property. Watson writes:

To own the land is a remote idea. The indigenous relationship to ruwe, the land is more complex. In Western capitalist thought, ruwe becomes known as property, a consumable which can be traded or sold. We live as part of the natural world; we are it also. The natural world is our mirror. We take no more than necessary to sustain life; we nurture ruwe as we do our self, for we are one. Westerners live on the land taking more than needed, depleting ruwe and depleting self. So self can be no more tomorrow. Westerners are separate and alien to ruwe...all is one, one is all, we are the land, the land is us and the law is in all things. That is the law.¹⁷

While this is an accurate description of capitalist thought, it should also be noted that individual relationships to land within Western culture are far more complex and diverse.¹⁸ Because private property is a social institution, in order to understand how it developed into its current state, it is useful to examine the larger cultural attitudes that surrounded its development. This analysis begins by considering the philosophical and theological justifications for the foundational notion of human dominion over nature.

¹⁶ The Tanganekald and Meintangk peoples come from the lower lakes and Coorong region in South Australia. See interactive map at <<http://www.southaustralia.com/9000473.aspx>>.

¹⁷ Irene Watson, *Raw Law: The Coming of the Muldarbi and the Path to its Demise* (D Phil Thesis, University of Adelaide, 1999) 9-10. Note that ruwe means land. Faithkeeper of the turtle clan among the Onondaga people, Chief Oren Lyons illustrates this point when commenting on the disposition of his nation. He notes: 'The idea of land tenure and ownership were brought here. We didn't think that you could buy and sell land. In fact, the ideas of buying and selling were concepts we didn't have. We laughed when they told us they wanted to buy land. And we said, well, how do you buy land? You might as well buy air, or buy water. But we don't laugh anymore, because that is precisely what has happened' Oren Lyons quoted in 'The Leadership Imperative: An Interview With Oren Lyons' in Barry Lopez (ed), *The Future of Nature: Writing on Human Ecology from Orion Magazine* (2007) 208.

¹⁸ For an excellent survey of Australian attitudes to the land, see Peter Reid, *Belonging: Australians, Place and Aboriginal Ownership* (2000).

1. Philosophical Justifications for Dominion

The safest general characterization of the European philosophical tradition is that it consists in a series of footnotes to Plato.¹⁹

The philosophical origin of human dominion over nature can be traced back to the very root of Western intellectual thought and in particular to the Stoic school of philosophy which thrived in ancient Greece from the early third century BCE.²⁰ The Stoics evolved from the Sophist movement, which was prominent in Athens from 450 BCE. During this period, philosophers like Protagoras (485-410 BCE) argued that '[m]an is the measure of all things',²¹ by which he meant that the question of whether a thing is right or wrong, good or bad, must always be considered in relation to human need. Like most lines of Western philosophy, the Stoics also drew heavily from Socrates (470-399 BCE) and his followers. Socrates, while not a Sophist, held very human centred ideas. His student Plato (429-347 BCE) records him saying: 'I am a man who loves learning, and trees and open spaces cannot teach me a thing, whereas men in town do.'²² This quote should not be interpreted to mean that Socrates or Plato were antagonistic or disrespectful toward nature.²³ Rather, both men believed that all things in the universe had a natural purpose or *telos* and that the ends of persons could only be pursued and achieved politically, in association with other human beings.²⁴ This was in direct and deliberate contrast to the earlier 'natural philosophers' such as Thales (620-546 BCE) and the rival philosophical

¹⁹ Alfred North Whitehead, *Process and Reality* (1979) 39.

²⁰ See also Klaus Bosselmann, *When Two Worlds Collide: Science and Ecology* (1995) 51-62.

²¹ Plato, 'Theaetetus' in John M Cooper (ed), *Plato: Complete Works* (1997) 152a

²² Plato, 'The Phaedrus' in *ibid* 230. In regard to this statement Dave Foreman notes: 'We've been on the wrong path ever since' interviewed in Derrick Jensen, *Listening to the Land: Conversations about Nature, Culture and Eros* (2004) 6.

²³ See Erwin Schrödinger, *Nature and the Greeks and Science and Humanism* (1996). Aristotle is widely regarded as one of the founders of biological science; see James G Lennox, *Aristotle's Philosophy of Biology: Studies in the Origins of Life Science* (2000).

²⁴ Richard Tarnas, *The Passion of the Western Mind* (1993) 13. Tarnas notes: 'In this sense, the good life is lived according to nature and there is no separation between *is* and *ought*. Right according to nature is what contributes to the being's perfection, what keeps it moving toward its end; wrong or unjust is what violently removes a being from its place, disrupts its natural trajectory and prevents it from being what it is.'

school established by Pythagoras (580-520 BCE) in 530 BCE.²⁵ Pythagoras for example, sought knowledge from studying nature's patterns. He also made a point of instructing his students on the care of and respect for nature. For example, he encouraged vegetarianism amongst his students and taught that the souls of dead humans migrated to animals. This teaching sought to establish kinship with nature and is not dissimilar to eastern religious ideas of re-incarnation.²⁶

Arthur O Lovejoy argues that the anthropocentric ordering of nature can be traced back to Plato's concept of plenitude.²⁷ This concept holds that the universe contains all possible forms of existence. Everything that can exist does exist, for as Plato reasons, the 'best soul' could begrudge existence to nothing that could conceivably possess it and 'desired that all things should be as like himself as they could be.'²⁸ While perhaps benign when read in isolation, the notion of plenitude provided the platform for the concepts of 'continuity' and 'graduation' formulated by Aristotle (384-322 BCE).²⁹ Both ideas were designed to fuse with the concept of plenitude and to be regarded as logically implied by it.³⁰ Speaking specifically in regard to the idea of continuity, Aristotle notes:

Nature proceeds little by little from things lifeless to animal life in such a way that it is impossible to determine the exact line of demarcation, nor on which side thereof an intermediate form should lie. Thus, next after lifeless things in the upward scale comes the plant, and of plants one will differ from another as to its amount of apparent vitality; and, in a word, the whole genus of plants, whilst it is devoid of life as compared with an animal, is endowed with life as compared with other corporeal entities. Indeed, as we just remarked, there is observed in plants a continuous scale of

²⁵ Christoph Riedweg, *Pythagoras: His Life, Teaching, and Influence* (2008).

²⁶ Peter Singer, *Animal Liberation* (1975) 205-206.

²⁷ Arthur O Lovejoy, *The Great Chain of Being: A Study of the Historian of an Idea* (1960) 50-55. See further, William Bynum, 'The Great Chain of Being after Forty Years: An Appraisal' (1975) 13 *History of Science* 1.

²⁸ Plato, 'Timaeus' in Cooper, above n 21, 29e. See also Lovejoy, above n 27, 54.

²⁹ Aristotle defines continuity (or continuum) in 'Metaphysics' in Jonathan Barnes (ed), *The Complete Works of Aristotle* (1984) 1069a as: 'Things are said to be continuous whenever there is one and the same limit of both wherein they overlap and which they possess in common.' On the infinite divisibility of the continuum, see 'Physics' 231a. Through this concept, Aristotle introduced the idea that all quantities, lines surfaces, solids, motions etc must be continuous, not discrete.

³⁰ Lovejoy, above n 27, 55.

ascent towards the animal. So, in the sea, there are certain objects concerning which one would be at a loss to determine whether they be animal or vegetable.³¹

For Plato, the notion of graduation or ranking of nature appears only as a vague tendency.³² The definitive formulation was undertaken by Aristotle who while recognising the multiplicity of possible systems of natural classification, arranged nature into a single graded scale according to their 'degree of perfection.'³³ Aristotle constructed two formulations of this hierarchy. The first focused on the degree of development reached by the offspring at birth. From this analysis, he discerned eleven general grades, with humankind at the top and the zoophytes at the bottom.³⁴ Further, to this basic hierarchy the notion of graduation includes clear instrumental values.³⁵ That is, nature is conceived as an instrument for human use. The following passage illustrates this attitude:

Plants exist for the sake of animals, the brute beasts for the sake of man - domestic animals for his use and food, wild ones (or at any rate most of them) for food and others accessories of life, such as clothing and various tools. Since nature makes nothing purposeless or in vain, it is undeniably true that she has made all animals for the sake of man.³⁶

Aristotle's second formulation organises the hierarchy with regard to the 'powers of soul.'³⁷ The scale ranges from the 'nutritive' of plants, to the 'rational' attributes of human beings and then 'possibly another kind superior to this.'³⁸ Importantly, each higher element on the hierarchy possesses all the powers of those below and an

³¹ Aristotle, 'History of Animals' in Barnes above n 29, 588b.

³² Lovejoy, above n 27, 58.

³³ Aristotle, 'The Generation of Animals' in Barnes, above n 29, 732a 25-733b.

³⁴ *Ibid.*

³⁵ Lovejoy, above n 27, 56.

³⁶ Aristotle, 'Politics' in Barnes, above n 29, 1991.

³⁷ *Ibid.*

³⁸ Aristotle, 'On the Soul' in Cooper, above n 21, 414a 29-415a.

additional differentiating one of their own.³⁹ The second ranking had great influence upon subsequent philosophy and natural history and was used by later intellectuals to justify the anthropocentric worldview. Lovejoy argues that 'Aristotle's hierarchy is one of the most potent and persistent presuppositions in Western thought.'⁴⁰ As evidence of this, the hierarchical ordering of nature was profoundly important to the development of private property. While Greek philosophers had written on property,⁴¹ the first sophisticated formulation was the Roman Stoic concept *dominion*.⁴²

Roman jurists had inherited the worldview and hierarchical order of nature from their Stoic forbearers.⁴³ In regard to law, they held that 'virtue consists in a will which is in agreement with Nature.'⁴⁴ In this context, 'nature' refers to human nature and not the natural world. Indeed, human beings were considered the measure of virtue and universal truth could be obtained through human.⁴⁵ This orientation was developed in Natural Law philosophy or the *jus naturale*. Stoic philosopher Cicero (106-43 BCE) provides the classic statement of Natural Law:

³⁹ Aristotle, 'On the Soul' in Cooper, above n 21, 414a 29-415a.

⁴⁰ Lovejoy, above n 27, viii.

⁴¹ Some of the earliest writing on property was Plato's 'Laws' in Cooper, above n 21, 550-551. Aristotle also wrote about property in 'Politics' Barnes, Barnes, above n 29, 1266a-1266b. Reflecting the relative importance both authors placed on human beings, both accounts are focused on human wellbeing and the distribution of social wealth.

⁴² Richard Pipes, *Property and Freedom* (1999) p xv. Certainly, there is abundant evidence that most cultures had recognised some idea of property in nature. James Harris notes that 'the oldest written records attest to it' and '[f]ew primitive peoples, whose societies have been researched by anthropologists, have turned out to lack any conception of it', JW Harris, *Property and Justice* (1996) 1. However, while evidence suggests that the idea of property has enjoyed universal recognition, its application to land, and other vast stretches of nature, is not a universal phenomenon and owes its first conception to the nomadic hunter-gather peoples occupying the near east some 10,000 years ago. Indeed, Pipes comments at 88-89: 'In all primitive societies and most non-Western societies in general, land was not treated as a commodity and hence was not truly property, which, by definition, entails the right of disposal.' Anthropological evidence suggests that the right to exclude another was the first right to emerge in ancient property systems, Thomas W Merrill, 'Property and the Right to Exclude' (1998) 77 *Nebraska Law Journal* 746. In Western legal terminology, this is known as the usufruct, which is a non-transferable exclusive right to use the land that terminates when the owner dies or ceases use. This right is distinguished from rights over un-owned objects by a right to exclude others from engaging with the item, Robert C Ellickson, 'Property in Land' (1993) 102 *Yale Law Journal* 1364.

⁴³ AA Long, *Hellenistic Philosophy: Stoics, Epicureans, Sceptics* (1986) 72.

⁴⁴ Bertrand Russell, *A History of Western Philosophy* (1967) 254.

⁴⁵ *Ibid.*

True law is right reason in agreement with nature; it is of universal application, unchanging and everlasting; it summons to duty by its commands, and averts wrongdoing by its prohibitions...It is a sin to try to alter this law, nor is it allowable to attempt to repeal any part of it, and it is impossible to abolish it entirely. We cannot be freed from its obligations by senate or people, and we need not look outside ourselves for an expounder and interpreter of it. And there will not be different laws at Rome and at Athens, or different laws now and in the future, but one eternal and unchangeable law will be valid for all nations and all times, and there will be one master and ruler, that is, God, over us, for he is the author of this law, its promulgator and its enforcing judge.⁴⁶

Cicero describes the classical theory of Natural Law as possessing three important characteristics. Firstly, it holds that there are universal and immutable 'laws' that are accessible at all times to human lawmakers. Secondly, the law of nature is a 'higher law' and superior to laws promulgated by political authorities (the *jus commun*). Finally, consistent with Aristotle's idea of continuity, it holds that all things have natural essences or ends that are directed toward human beings.⁴⁷ To discover these ends, human beings are required to use their reflective intellect to draw knowledge, reach conclusions and deduce rational steps about what justice requires.⁴⁸

Roman jurists argued that the natural end of the environment was human good. However, because they advocated a relationship between law and morality under the Natural Law, they also made provision for the moral treatment of nature.⁴⁹ For example the *jus animalium* was a specific category of law dealing with non-human animals and advocated that they possessed inherent natural rights.⁵⁰ Sean Coyle and Karen Morrow argue that 'property rights were regarded as arising from and moving within, conceptions of social justice which were fundamentally tied to the cultivation and care of

⁴⁶ Cicero, *The Republic and The Laws* (2008) 105.

⁴⁷ Harris, above n 42, 7.

⁴⁸ Ibid.

⁴⁹ Roderick Nash, *The Rights of Nature: A History of Environmental Ethics* (1989) 17.

⁵⁰ Ibid 16. At 17 Nash quotes from Ulpian who comments that the *jus animalium* was part of the *jus naturale* because the latter includes 'that which nature has taught all animals; this law indeed is not peculiar to the human race, but belongs to all animals.'

the environment.⁵¹ Unfortunately, as discussed in Section III Part 3, the inherent moral nature of private property slowly shifted during the nineteenth century, as the foundation of property law shifted from Natural Law to Legal Positivism.

Returning to Cicero it is relevant to note that he is credited with forming the humanist movement⁵² and holding overtly anthropocentric ideas. The influence of Aristotle's writing on 'continuity' and 'graduation' are evidenced in the following statement: 'just as a shield-case is made for the sake of a shield and a sheath for the sake of a sword, so everything else except the world was created for the sake of some other thing; thus the corn and fruits produced by the earth were created for the sake of animals, and animals for the sake of man.'⁵³ Cicero's pupil Seneca (4 - 65 BCE) continued this legacy and famously stated: 'To mankind, mankind is holy.'⁵⁴ This statement became the slogan for humanism through the renaissance and as legal historian Richard Schlatter notes, Roman jurists 'wove the philosophy of Cicero and Seneca into law through the concept of dominion.'⁵⁵

Roman jurists did not attempt to define dominion⁵⁶ and instead left its meaning to arise from use.⁵⁷ During the revival of Roman law during the 11th century, jurists defined *dominium* as akin to 'lordship' and further noted that it was a sovereign,

⁵¹ Sean Coyle and Karen Morrow, *The Philosophical Foundations of Environmental Law* (2004) 212-213.

⁵² Humanism holds that human beings are of prime importance and an emphasis is placed on human goodness, values and needs.

⁵³ Cicero, *The Nature of the Gods* (2008) 159. Cicero notes further at 160: 'No right exists between man and beast. For Chrysippus well said, that all other things were created for the sake of men and gods, but that these exist for their own mutual fellowship and society, so that men can make use of the beasts for their own purposes without injustice.'

⁵⁴ Seneca, *Letters from a Stoic* (1969) 56.

⁵⁵ Richard Schlatter, *Private Property: The History of an Idea* (1952) 26.

⁵⁶ Alan Rodgers, *Owners and Neighbours in Roman Law* (1972) 1. Pipes at above n 42, 11 that the best-known Roman definition of *dominium* is 'the right to use and consume one's thing as allowed by law.' Scholars such as Rodgers contend that this definition was formulated in the sixteenth century.

⁵⁷ Barry Nicholas, *An Introduction to Roman Law* (1962) 152.

ultimate or an absolute right to claim title and thus possess and enjoy an item.⁵⁸ Despite such absolute language, *dominium* was qualified in practice. Indeed, Peter Birks contends: 'No community could tolerate ownership literally unrestricted in its content.'⁵⁹ As in contemporary law, the ownership of nature was mitigated by the 'equal use, enjoyment and abuse by all other owners of their property.'⁶⁰ Further, social, economic and political factors could also limit private ownership for example taxation.⁶¹

In summary, despite the great level of evolution and increasing sophistication the Western concept of private property has undergone since the classical period, our law has never moved away from the idea that nature exists as human property and that humans have dominion over nature. Indeed, this starting point has become the sacred and unquestioned presupposition upon which all other theories of property have been based.⁶² Speaking directly in regard to the evolution of property, Joshua Getzler notes: 'Roman ideas about private and public property provide a kind of DNA of legal ownership, the intellectual structure within which most later legal thought has developed.'⁶³ In agreement, SFC Milsom notes that the common law doctrine 'of 'seisin' and 'right' [were] forever dazzled by the Roman vision of possession and ownership.'⁶⁴

This chapter now considers the influence of Christian theology on the concept of private property. It illustrates how Christian myths concerning the divine grant of *dominium* to human kind, fused with Roman law to make the dominant theory of

⁵⁸ Joshua Getzler, 'Roman Ideas of Landownership' in Susan Bright and John Dewar (eds), *Land Law: Themes and Perspectives* (1998) 82.

⁵⁹ Peter Birks, 'The Roman Law Concept of *Dominium* and the Idea of Absolute Ownership' (1985) *Acta Juridica* 1.

⁶⁰ Nicholas, above n 57, 154.

⁶¹ *Ibid.*

⁶² The classic texts on this issue are WW Buckland, *Roman Law and Common Law: A Comparison in Outline* (2008) [first published 1936] and Peter Stein, *Character and Influence of the Roman Civil Law* (2003).

⁶³ Getzler, above n 58, 81. Getzler notes further: 'It can no longer be doubted that the English Common law of property was deeply influenced by the Roman doctrines of possession, title and servitudes. It follows that all cultivated law students in common law...should have some awareness of Roman and Civilian doctrines of landownership.'

⁶⁴ SFC Milsom, *Historical Foundations of the Common* (1981) 119.

private property through the Middle Ages and to the 19th century.

2. From Dominion to Dominium

Christianity is the most anthropocentric religion the world has seen.⁶⁵

The next significant development for the Western theory of private property occurred at the hands of Christian jurists.⁶⁶ Following the conversion of Roman Emperor Constantine to Christianity in 313 AD⁶⁷ ‘clerical jurists combined classical humanist philosophy with Christian myths of the Garden of Eden and the Fall of Man [to make] the standard theory’ of property of the medieval church.⁶⁸ This arrangement was favourable to the early church fathers who had no express desire to remove existing property arrangements.⁶⁹ For them, the concept of dominion ‘not only solved this dilemma: it dovetailed neatly with other Christian myths and doctrines.’⁷⁰

The Roman concept of *dominion* was strengthened by the Christian idea of *dominium*. Both words share the common etymological root *domino*, which means to rule or power.⁷¹ The most explicit Christian reference to human dominium over nature is found in chapter one of Genesis. Here we are told that God made human beings in his

⁶⁵ Lynn White Jr, ‘The Historical Roots of Our Ecologic Crisis’ (1967) 155 *Science* 1203.

⁶⁶ The influence of Christian law on contemporary common law is well documented. The seminal work is Harold J Berman, *Law and Revolution: The Formation of the Western Legal Tradition* (1983). For a specific discussion on property see Frank Alexander’s ‘Property and Christian theology’ in John Witte Jr and Frank Alexander (eds), *Christianity and Law: An Introduction* (2008).

⁶⁷ Charles M Odahl, *Constantine and the Christian Empire* (2006) 35.

⁶⁸ Schlatter, above n 55, 26.

⁶⁹ Pipes, above n 42, 10.

⁷⁰ Schlatter, above n 55, 35. See also Caroline Humfress, ‘Law and Legal Practice in the Age of Justinian’ in Michael Maas (ed), *The Cambridge Companion to the Age of Justinian* (2005) who at 167–71 argues that Justinian’s *Corpus Juris Civilis* added rhetorical support to the substantive principles of the classical Roman law.

⁷¹ CT Onions, *The Oxford Dictionary of English Etymology* (1996) 198.

own image and stations them in a special position in the universe. Moreover, Human beings are explicitly given dominium over all things.⁷² Genesis 1:28-31 states:

Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground.' Then God said, 'I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food. And to all the beasts on the earth and all the birds of the air and all the creatures that move on the ground – everything that has the breath of life in it – I give every green plant for food and it was so.⁷³

Theologian Gloria Schaab argues that the dominant interpretation given to this passage by the Western Christian church is that human beings have been 'given license...to ravage and despoil the natural environment.'⁷⁴ She notes further that this passage '[e]nables human beings to look upon the environment as having only instrumental value – that is, as valuable solely in terms of what it supplies the human being.'⁷⁵ Further insight into how Western Christianity perceived nature can be gained through a reading of the fall of humankind depicted in Genesis 3:13-19. In this passage, God caught Adam and Eve eating from the forbidden tree. Upon receiving their confessions, God banished them from the Garden and inflicts hardship upon them and the serpent that tricked Eve. Mythologist Joseph Campbell argues that one of the dominant messages portrayed in this passage is that nature is something to be condemned.⁷⁶ Indeed, in this story we see human beings, God and nature as three *separate* entities in *conflict*. Zen philosopher

⁷² This covenant is restated in Genesis 9:1-3 where following the flood, God blesses Noah and his sons and states '[b]e fruitful and increase in number and fill the earth. The fear and dread of you will fall upon all the beasts of the earth and all the birds of the air, upon every creature that moves along the ground, and upon all the fish of the sea; they are given into your hands. Everything that lives and moves will be food for you. Just as I gave you the green plants, I now give you everything,' Zondervan, *NIV Study Bible* (2002) 17.

⁷³ Zondervan, above n 72, 7. See also W Lee Humphreys, 'Pitfalls and Promises of Biblical Texts as a Basis for a Theology of Nature' in Glenn C Stone (ed), *A New Ethic for a New Earth* (1971). Humphreys reviews the work of Hebrew linguists who note that the operative verbs *kabash* (subdue) and *radah* (dominion) are used to signify a violent assault or crushing. The image is that of a conqueror placing his foot on the neck of a defeated enemy, exerting absolute domination.

⁷⁴ Gloria Schaab, 'Beyond Dominion and Stewardship' in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

⁷⁵ *Ibid.*

⁷⁶ See further Joseph Campbell, *The Inner Reaches of Outer Space: Metaphor as Myth and as Religion* (2002) 59.

Daisetz T Suzuki comments: 'Man is against God, Nature is against God, and Man and Nature are against each other. God's own likeness (Man), God's own creation (Nature) and God himself- all three are at war.'⁷⁷ Thomas Berry supports this interpretation, arguing:

There is nothing to indicate a love of existence or a capacity for intimacy with the natural world for its own sake. Not to use it for monetary or even spiritual purposes but to be present in it.⁷⁸

This section does not attempt a comprehensive analysis of how the notion of dominium influenced the many Christian writers on property during the middle ages.⁷⁹ However, what is striking about early Christian theories of property is the unquestioned belief that 'the world was made for the common benefit of mankind.'⁸⁰ Consistent with Stoic Natural Law writers, this anthropocentric perspective was tempered by a strongly felt sense of responsibility to the public good.⁸¹ These two ideas are illustrated in the writing of St Thomas Aquinas. In many places Aquinas re-iterates the early Christian view that in a certain sense 'it was not natural for man to possess external things' because all 'goods belong to God and are the common property of God's children.'⁸² However, his

⁷⁷ Daisetz T Suzuki, 'The Role of Nature in Zen Buddhism' in Olga Frobe Kapteyn (ed), *Mensch und Erde* (1954) 294-295.

⁷⁸ Thomas Berry in Jensen, above n 22, 37. It is acknowledged that there are diverse perspectives within Christianity. For example Lynn White Jr proposes St Francis Assisi as the Patron Saint of ecologists, see White Jr, above n 65, 1205. René Dubos proposed Benedict of Nursia an alternative symbol of human ecology. See Rene Dubos 'A Theology of the Earth' in Barbour (ed), *Western Man and Environmental Ethics* (1973). Note also the growing movement of religion in ecology. A useful introduction to this literature is Roger S Gottlieb, *The Oxford Handbook of Religion and Ecology* (2010).

⁷⁹ For a general analysis of this period see Schlatter, above n 55, 33-79 and Pipes, above n 42, 13-19.

⁸⁰ AJ Carlyle, *Property, Its Rights and Duties* (1922) 123.

⁸¹ For example St Augustine viewed property as a responsibility rather than a warrant for license – a 'trust' held by individuals for the common good. See further Pipes, above n 42, 15.

⁸² Thomas Aquinas, *Summa Theologica* (1981) Question 66, Article 1. In Question 94, Article 5 Aquinas notes further: 'We might say that for man to be naked, is of the Natural Law, because nature did not give him clothes, but art invented them. In this sense, the possession of all things in common and universal freedom are said to be of the Natural Law.'

writing was also deeply influenced by the philosophy of Aristotle.⁸³ Drawing on this source and biblical authority he cites the primary importance of human beings in creation.⁸⁴ He also draws on Aristotle's *Politics* to argue against holding property in common on the basis that it promotes discord. Indeed, Aquinas argues that private ownership was vital to spiritual growth and served the public good by enabling the giving of alms.⁸⁵

Under the influence of Aquinas, the Christian view of private property shifted from being a 'regrettable but unavoidable reality' to being a theory that was defended with vigour.⁸⁶ For example, in 1329 Pope John XXII restated human dominion over nature in a papal edict: 'Property (*dominium*) of man over his possessions does not differ from the property asserted by God over the universe, which He bestowed on man created in his Image.'⁸⁷ Had this religious doctrine remained the exclusive possession of theologians, its subsequent influence on law would have been slight. However, from the Middle Ages to the modern era, political theorists and legal jurists have cited dominion as a justification for private property.⁸⁸ The most well-known example is Sir William Blackstone who defined property as 'that sole and despotic dominion that one man claims and exercises over the external things of the world, in total exclusion of the right

⁸³ Speaking to the relationship between Aristotle and Aquinas, Ralph McNery notes: '[i]t has been said that without Thomas, Aristotle would be mute; it can equally well be said that without Aristotle, Thomas would be unintelligible', Ralph McNery, *St Thomas Aquinas* (1977) 30.

⁸⁴ See for example Thomas Aquinas, *Summa Contra Gentiles* (1991) [first published 1264] Bk 3, Pt 2, Ch 112. Aquinas argues that nonhuman animals are 'ordered to man's use' and have 'no independent moral standing.' In regard to the idea of continuity, he notes 'nature does not make [animal] kinds separate without making something intermediate between them; for nature does not pass from extreme to extreme *nisi per medium*.' Indeed, he notes that there is a 'wonderful linkage of beings' which nature 'reveals to our view. The lowest member of the higher genus is always found to border upon the highest member of the lower genus,' quoted in Lovejoy, above n 27, 79.

⁸⁵ Aquinas, above n 82.

⁸⁶ Pipes, above n 42, 17.

⁸⁷ *Ibid.*

⁸⁸ Schlatter, above n 55, 57.

of any other individual in the universe.’⁸⁹ Blackstone also justified the institution on the following basis:

In the beginning of the world, we are informed by holy writ, the all-bountiful Creator gave to man ‘dominion over all the earth, and over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.’ This is the only true and solid foundation of man’s dominion over external things, whatever airy metaphysical notions may have been started by fanciful writers upon this subject. The earth, therefore, and all things therein, are the general property of all mankind, exclusive of other beings, from the immediate gift of the Creator.⁹⁰

Under the influence of Christian authors, the idea of human dominion over nature was firmly entrenched.⁹¹ This perspective underwent further significant development during the scientific and industrial revolutions of the 18th century. We turn now to consider this period and its consequence for the concept of private property.

III. THE SCIENTIFIC REVOLUTION: SEPARATION AND FRAGMENTATION

During the 17th century the notion of human dominium over nature was supplemented by a mechanistic philosophy that described nature as a fragmented, lifeless, machine.⁹² The basis for this thinking was the scientific revolution that began at the end of the 16th century and continued until the industrial revolution in the 18th century. Like all major shifts in epistemology, the scientific revolution had a profound impact on the Western worldview. John Bernal writes: ‘The renaissance enabled a scientific revolution which let

⁸⁹ Blackstone, above n 1, 2.

⁹⁰ Ibid 2. An important analysis of Blackstone’s writing on dominion and its relationship to Christian theology can be found in Murray Raff, ‘Toward an Ecologically Sustainable Property Concept’ in Elizabeth Cooke (ed), *Modern Studies in Property Law Volume III* (2005) 69-72.

⁹¹ See for example John Locke, *Second Treatise on Government* (1970) [first published 1689] 14.

⁹² See Lovejoy, above n 27; William Leiss, *The Domination of Nature* (1994); David W Ehrenfeld, *The Arrogance of Humanism* (1981) and Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (1990).

scholars look at the world in a different light...religion, superstition and fear were replaced by reason and knowledge.⁹³ This shift resulted in a significant transformation in all major scientific fields and more fundamentally on the perception that Western culture held of nature.⁹⁴ Further, because law is a reflection of culture, these broad shifts also had significant impact on the institution of private property.⁹⁵

1. *The Scientific Revolution*

Many authors have traced the origin and development of the scientific revolution.⁹⁶ Because of his influence on the development of scientific method, our investigation begins with Francis Bacon. Building on the philosophy of Galileo Galilei,⁹⁷ Bacon advocated a 'violent shift in perspective',⁹⁸ rejecting all information received through subjective sources such as faith or experience and relied only on knowledge gained by scientific inquiry. Bacon's focus was so strongly on objectivity that in *The New Atlantis* he states that the purpose of human society is to acquire 'the Knowledge of Causes, and Secrett Motions of Things; and the Enlarging of the bounds of the Humane Empire, to the Effecting of all Things possible.'⁹⁹ This focus is premised on the specific concept of

⁹³ John Bernal quoted in Andrew Brown, *J. D. Bernal: The Sage of Science* (2007) 36.

⁹⁴ Fritjof Capra, *The Turning Point: Science, Society, and the Rising Culture* (1984) 10.

⁹⁵ This point is recognised in Schlatter, above n 55, 125. For a detailed discussion see Nicole Graham, *Landscape: Property, Environment, Law* (2011) 28-58.

⁹⁶ See for example Steven Shapin, *The Scientific Revolution* (1998) 1.

⁹⁷ Galileo argued that science should be restricted to considering phenomena that could be measured and quantified. In 'The Assayer' Maurice A Finocchiaro (ed), *The Essential Galileo* (2008) Galileo is quoted as stating that nature could be interpreted exclusively in the language of mathematics and rejected approaches that focus on the qualities of nature. Commenting on this method, RD Laing notes: 'Galileo's program offers us a dead world. Out go sight, sound, taste, touch and smell, and along with them have since gone esthetic and ethical sensibilities, values, quality, soul, conscious spirit. Experience as such is cast out of the realm of scientific discourse. Hardly anything has changed out world more during the past four hundred years than Galileo's audacious program. We had to destroy the world in theory before we could destroy it in practice', quoted in Fritjof Capra, *The Web of Life: A New Scientific Understanding of Living Systems* (1997) 19.

⁹⁸ Morris Berman, *The Re-enchantment of the World* (1981) 29.

⁹⁹ Francis Bacon, *The New Atlantis* (1990) [first published 1626] 34-35.

nature-as object, which is integral to anthropocentrism.¹⁰⁰ That Bacon held this worldview is beyond question as illustrated in the following statement:

Man, if we look to final causes, may be regarded as the centre of the world; in so much that if man were taken away from the world, the rest would seem to be all astray, without aim or purpose... and leading to nothing. For the whole world works together in the service of man; and there is nothing from which he does not derive use and fruit... insomuch that all things seem to be going about man's business and not their own.¹⁰¹

From this perspective, human beings and nature are separate. Only human beings are considered subjects and in a position to conduct objective inquiry. In contrast, nature is the separate object under investigation. Within this framework it is ontologically impossible to be both subject and object – ‘something is either culture or it is nature; human or not human; the inquirer or the object of inquiry.’¹⁰² For Bacon this dichotomy resulted in extreme and sometimes violent implications. Commenting on the intention of this growing method in science, Bacon holds: ‘My only earthly wish is...to stretch the deplorably narrow limits of man's dominion over the universe to their promised bounds...putting [nature] on the rack and extracting her secrets...storming her strongholds and castles.’¹⁰³ At no time did Bacon hide his agenda: ‘I come in very truth leading you to nature with all her children to blind her to your service and make her your slave...the mechanical inventions of recent years do not merely exert a gentle guidance over Nature’s courses, they have the power to conquer and subdue her, to shake her to her foundations.’¹⁰⁴ Elsewhere he notes: ‘We have no right to expect nature to come to us...Nature must be taken by the forelock, being bald behind.’¹⁰⁵ He also

¹⁰⁰ Graham, above n 95, 29.

¹⁰¹ Francis Bacon cited in Peter Marshall, *Nature's Web: Rethinking Our Place on Earth* (1994) 184.

¹⁰² Graham, above n 95, 29.

¹⁰³ Francis Bacon quoted in Benjamin Farrington, *Francis Bacon: Philosopher of Industrial Science* (1949) 62.

¹⁰⁴ *Ibid.*

¹⁰⁵ *Ibid* 129.

warns that delay or more subtle method 'permit one to clutch at nature, never to lay hold of her and capture her.'¹⁰⁶

In her detailed analysis of the idea of nature during the scientific revolution Carolyn Merchant argues that Bacon employs metaphor to describe the discursive category of nature in feminine form. Indeed, just 'as woman's womb had symbolically yielded to the forceps, so nature's womb harboured secrets that through technology could be wrested from her grasp.'¹⁰⁷ Just as women were once the property of men, now nature-as-the-feminine was to be subdued for the benefit of humankind.

Rene Descartes maintained Bacon's instruction 'never to accept anything as true if [one] did not have evident knowledge of its truth.'¹⁰⁸ In his search for objectivity, Descartes viewed nature as a great machine or clockwork mechanism.¹⁰⁹ Indeed, Descartes argued that all of nature was governed by mechanistic principles or laws that could be studied like the inner workings of a clock.¹¹⁰ Human beings were exceptions because we alone possess a soul and have 'rendered ourselves the lords and possessors of nature.'¹¹¹ Descartes argued that animals were insensible and irrational machines that 'moved like clocks, but could not feel pain.'¹¹² Continuing Bacon's nature-as-woman

¹⁰⁶ Farrington, above n 103, 130.

¹⁰⁷ Merchant, above n 92, 169. See further Val Plumwood, *Feminism and the Mastery of Nature* (1993).

¹⁰⁸ Rene Descartes, 'Discourse on Method' in John Cottingham (ed), *The Philosophical Writings of Descartes* (1985) 113.

¹⁰⁹ Thomas Berry, *The Great Work: Our Way Into the Future* (1999) 36.

¹¹⁰ This mechanistic description of nature appears first in the writing of Isaac Newton (1642-1727) who argued that the cosmos was like an immense clock whose basic principles and features could be revealed through a reductionist scientific methodology. This involves separating and dissecting nature into individual parts and allowing scientists to piece the final product together, much like pieces of a jigsaw. Thus, according to Newton, not only is nature 'knowable, adjustable [and] manageable...it belongs to the people who control it', quoted in David Suzuki, *The Sacred Balance: Rediscovering Our Place in Nature* (1997) 14.

¹¹¹ Descartes, above n 108, 141. Commenting on this statement, Thomas Berry notes: 'Descartes killed the Earth and all its living beings. For him the natural world was a mechanism. There was no possibility of entering into a communion relationship. Western humans became autistic in relation to the surrounding world', in *The Ecozoic Era* (1991) <http://www.smallisbeautiful.org/publications/berry_91.html>.

¹¹² Descartes quoted in Nash, above n 49, 18.

metaphor, this convinced Descartes that ‘coercing, torturing, operating upon the body of Nature...is not torture [because] Nature’s body is an unfeeling, soulless mechanism.’¹¹³

The violent dichotomy drawn by Descartes between human beings and nature illustrates that his discourse on method was ‘based not simply on a binary structure’ but premised on a perceived hierarchy in nature.¹¹⁴ The scientific method was much more a tool for the attainment of objective truth. Indeed, it was used to strengthen the anthropocentric paradigm and separate human beings from nature.¹¹⁵ Nature receives value as a means in the attainment of human ends. It is an instrument and has no value independent of human purpose.¹¹⁶ David Harvey comments on this point:

Deprived of any autonomous life force, nature was open to be manipulated without restraint according to the human will. Nature became, as Heidegger later noted, “one vast gasoline station for human exploitation”.¹¹⁷

The scientific revolution had a significant impact on the way that Western culture perceived and related to the natural world. Further, Schlatter argues that the ‘new scientific thinking influenced the political writers on property.’¹¹⁸ Graham states this point more boldly, noting: ‘The anthropocentric division of the world into nature and culture formed the basis of the modern concept of property in law.’¹¹⁹ The environment under which this perception operated and flourished coincided with the growth of capitalist economies and the industrial revolution. Indeed, the mechanistic philosophy

¹¹³ Descartes quoted in Peter Hay, *Main Currents in Western Environmental Thought* (2002) 125. Commenting on this argument, Roderick Nash contends: ‘This dualism, the separateness of humans and nature justified vivisection and indeed any human action towards the environment. Descartes left no doubt that people were the ‘masters and possessors of nature’. The nonhuman world became a ‘thing’. Descartes understood this objectification of nature as an important prerequisite to the progress of science and civilization’, Nash, above n 49, 18.

¹¹⁴ Graham, above n 95, 31. See further, Leiss, above n 92, 132-134 and Merchant, above n 92, 188.

¹¹⁵ Graham, above n 95, 31.

¹¹⁶ David Harvey, *Justice, Nature and the Geography of Difference* (1997) 134.

¹¹⁷ Ibid. See also Martin Heidegger, *The Question Concerning Technology, and Other Essays* (1982).

¹¹⁸ Schlatter, above n 55, 125.

¹¹⁹ Graham, above n 95, 38.

of the scientific revolution, in particular Descartes' description of nature as an 'unfeeling, soulless mechanism', provided the perfect intellectual footing for growth economics to flourish. As Karl Marx notes, both Bacon and Descartes 'saw with the eyes of the manufacturing period' and their philosophy 'anticipated an alteration in the form of production and the practical subjugation of Nature by Man.'¹²⁰

2. Private Property and the Industrial Revolution

The Industrial Revolution's dams, mills, factories and canals used land with increasing intensity, causing damage that more and more frequently extended to neighbouring, increasingly populated lands. Sometimes things went wrong, causing fires, floods and explosions, while pollution and other kinds of damage were inherent in the activities themselves.¹²¹

The industrial revolution began at the conclusion of the scientific revolution during the 18th century and concluded at the beginning of the 20th century.¹²² This period was characterised by technological advancement, most notably in agriculture, manufacturing, mining and transport. While often neglected in the literature, each of these activities is fundamentally connected to private property which facilitates many forms of land use.¹²³ To analyse the relationship between the industrial revolution and private property, this section focuses on the historical evolution of property in the United States. While jurisdictional and historical differences are acknowledged, the development of private property in the United States provides an important insight into how other Western capitalist systems evolved over the same period. Further,

¹²⁰ Karl Marx quoted Harvey, above n 116, 121.

¹²¹ Joseph Guth, 'Law for the Ecological Age' (2009) 9 *Vermont Journal of Environmental Law* 431: 450.

¹²² See Gavin Weightman, *The Industrial Revolutionaries: The Making of the Modern World 1776-1914* (2010).

¹²³ See Kermit Hall, Paul Finkelman, and James W Ely, *American Legal History: Cases and Materials* (2004); Gregory S Alexander, *Commodity and Propriety: Competing Visions of Property in American Legal Thought* (1999); Eric T Freyfogle, *The Land We Share: Private Property and the Common Good* (2003) and Morton Horwitz, *The Transformation of American Law, 1780-1860* (1977).

developments in law and theory from the United States continue to influence other jurisdictions to this day.

Morton Horowitz argues that prior to the industrial revolution, property rights in the United States were underpinned by an ‘explicitly anti-development theory’ that limited landowners to what courts regarded as natural use.¹²⁴ A nineteenth century English court explained the notion of ‘natural use or incidents’ in the following terms:

What then is the right of land and its owner or occupier? It is to have all natural incidents and advantages as nature would produce them. There is a right to all the light and heat that would come, to all the rain that would fall, to all the wind that would blow, a right that the rain which would pass over the land should not be stopped and made to fall on it, a right that the heat from the sun should not be stopped and reflected on it, a right that the wind should not be checked, but should be able to escape freely; and if it were possible that these rights were interfered with by one having no right, no doubt an action would lie.¹²⁵

The ‘natural use’ idea of private property equated to strong trespass law, which barred all uncontested physical entities and nuisance law that prohibited neighbours from indirectly impairing a neighbour’s enjoyment of land.¹²⁶ Further, a landowner could not disturb the natural drainage of land or take water from a river to the extent that it ‘diminished its quality or quantity’ for landowners downstream.¹²⁷ Finally, under the doctrine of ancient lights, landowners could halt any construction that interfered with sunlight.¹²⁸

¹²⁴ Horowitz, above n 123, 32. The term natural was often equated with agrarian practices, see F Bohan, ‘The Rule in Rylands v Fletcher’ (1911) 59 *University of Pennsylvania Law Review* 298.

¹²⁵ *Bryant v Lefever*, 4 Common Pleas Division 172 (1879) at [175]-[176].

¹²⁶ Eric T Freyfogle, ‘Property Rights, The Markets and Environmental Change in Twentieth-Century America’ (2001) 01 *Illinois Public Law and Legal Theory Research Papers Series* 1: 4. Available from SSRN: <<http://papers.ssrn.com/abstract=288994>>.

¹²⁷ *Ibid* 4. Note that the notion of limiting private rights for the common good actually increased during the industrial revolution. It only increased during the rise of liberal political theory considered in section four below. See further Freyfogle, above n 123, 78 and Horowitz, above n 123, 32. Horowitz quotes a Latin maxim, frequently invoked by the courts during the 19th century – *sic utere tuo ut alienum non laedas* which means to ‘use your own so as not to injure another.’

¹²⁸ Freyfogle, above n 126, 4.

It was quickly recognised that this conception of private property stood in the way of economic progress. To increase growth, lawmakers were required to 'materially change the meaning of landownership to facilitate...intensive land uses.'¹²⁹ Horwitz comments: 'Law once conceived of as protective, regulative, paternalistic and above all, a paramount expression of the moral sense of the community, had come to be thought of as facilitative of individual desires and as simply reflective of the existing organization of economic and political power.'¹³⁰ Fundamental to this shift, was the idea that private property entailed the right to use the land more intensely than had been practised by previous generations. For example, communities who once enjoyed water laws that protected natural flow had these removed so that industries could draw more water and even introduce pollutants into the water system. Industrial parties required the right to emit smoke that degraded air quality; to make noise that scared livestock and on occasion to emit sparks which had the potential to set wheat fields on fire. Waterwheels disrupted the migration of fish, tall buildings blocked sunlight.¹³¹ In essence, the legal concept of private property was reconceptualised to promote market growth 'at the expense of farmers, workers, consumers' and the environment.¹³²

Over the next hundred years, lawmakers entrenched this shift in positive law,¹³³ redefining land as a commodity that could be used, exploited and even destroyed to satisfy production and profit. The most important avenue for shaping property rights during this period was the common law. An illustrative case from the early 19th century was the dispute in *Palmer v Mulligan*.¹³⁴ In this case, Palmer established a sawmill on

¹²⁹ Freyfogle, above n 126, 4.

¹³⁰ Horwitz, above n 123, 253.

¹³¹ Freyfogle, above n 126, 4.

¹³² Horwitz, above n 123, 254.

¹³³ *Ibid.*

¹³⁴ For a detailed account see Freyfogle, above n 123, 66-70.

land held along the Hudson River. Years later, a competitor constructed a dam, 180 meters upstream which altered Palmer's access to the natural flow of water. Palmer sued the competitor, citing case law that protected riparian rights. Two of the presiding judges decided that the defendant 'clearly' had no right to obstruct Palmer's riparian right.¹³⁵ However, the three majority judges decided differently, holding that riparian rights were to give way to cost/benefit economic analysis.¹³⁶ On this point Justice Livingston held that the public benefit 'always attends rivalry and competition' and that Palmer's claim would have the consequence of closing down the defendant's mill. Arguing against this outcome, Livingston held that the public interest was served by allowing all landowners to use their land productively. To side with Palmer would simply grant a monopoly. He noted further that the no harm principle 'should be limited to such cases only where a manifest and serious damage is the result of such use or enjoyment.'¹³⁷

While the reasoning in *Palmer* is commonly advocated in courts today,¹³⁸ it represented a dramatic departure from the existing case law of the period. Joseph Guth argues that this decision was the first time 'the American legal system allowed an enterprise to damage a neighbouring landowner without paying compensation based on an explicit consideration of the relative economic efficiencies of competing uses of land.'¹³⁹ Horwitz argues further that the *Palmer* decision introduced the 'entirely novel view that an explicit consideration of the relative efficiencies of conflicting property uses

¹³⁵ *Palmer v Mulligan* 3 Cai R 307 (1805) at [307]. The full quote reads: 'The defendants have clearly...no right to obstruct the plaintiffs in the enjoyment of the water. They have an equal right to build a mill on their soil, but they must so use the water, and so construct their dam, as not to annoy their neighbour below in the enjoyment of the same water.'

¹³⁶ Horwitz, above n 123, 33 notes: 'Claims founded on natural use began to recede into a dim preindustrial past and the newer balancing test of efficiency came into sharper focus.'

¹³⁷ *Palmer v Mulligan* 3 Cai R 307 (1805) at [314].

¹³⁸ Horwitz, above n 123, 63-108 explores the gradual acceptance and exploration of the principles of *Palmer*.

¹³⁹ Guth, above n 121, 451.

should be the paramount test of what constitutes legally justified injury.¹⁴⁰ While it would take many years before courts firmly accepted this decision and defined a new legal test to determine this balance,¹⁴¹ *Palmer* stands firmly for the emerging notion that property implies the right to develop and exploit the land for economic purposes.¹⁴² By the end of the nineteenth century, judges widely accepted Livingston's claim that industrial activity generally produces net social benefit despite increasing environmental harm. Indeed, judges held that society would be better off if everyone accepted this damage rather holding steadfast to the undisturbed and quiet enjoyment of the land.¹⁴³ According to Guth, this reasoning was based not on a conclusion about 'economics and the social good' but on the basis of a 'passionate belief in industrialization that was widespread in American society.'¹⁴⁴ This spirit was captured in an 1873 judgement of the New York State Court of Appeals where it was held that the defendant was not liable for damage caused to their neighbour's property after their boiler exploded:

The general rules that I may have the exclusive and undisturbed use and possession of my real estate, and that I must so use my real estate as not to injure my neighbour, are much modified by the exigencies of the social state. We must have factories, machinery, dams, canals and railroads. They are demanded by the manifold wants of mankind, and lay at the basis of all our civilization [The damaged neighbor] receives his compensation...by the general good, in which he shares, and the right which he has to place the same things upon his lands.¹⁴⁵

At the beginning of the twentieth century, private property had undergone a radical transformation from a regrettable but unavoidable institution, to a primary facilitator of

¹⁴⁰ Horwitz, above n 123, 38.

¹⁴¹ Guth, above n 121, 452.

¹⁴² Horwitz, above n 123, 37. Horwitz notes that *Palmer* represents 'the beginning of the gradual acceptance of the idea that the ownership of property implies above all the right to develop that property for business purposes.'

¹⁴³ See for example *Platt v Johnson and Root* 15 New York Supreme Court (1818) at [213] citing Justice Livingston.

¹⁴⁴ Guth, above n 121, 452.

¹⁴⁵ *Losee v Buchanan* 51 New York Supreme Court (1873) 476 at [484]-[485]. Cited in Guth, above n 121, 453.

human interaction with the land. The narrative of ownership that emerges from this period was of human dominion over a lifeless, mechanistic machine. The industrial revolution was fuelled partly by this narrative, which it used to justify more intensive forms of land use and the shaping of property rights in pursuit of economic growth. The concept of private property continued to perpetuate anthropocentric values during the twentieth century by defining property as a human-human relationship and placing only minimal emphasis on the object of the property relationship. This development is considered, beginning with the writing of Jeremy Bentham and gradual succession of positivist over Natural Law descriptions of property.

3. The Separation of People from Place

A. Positive Law and Jeremy Bentham

The mechanistic perception of nature advanced during the scientific revolution was vital for industrial progress. Improvements in technology enabled human beings to move beyond Bacon's metaphor and literally 'put nature on the rack', 'storm her strongholds and castles' and 'shake her to her foundations.'¹⁴⁶ Berry maintains: 'Modern technologies and the industrial establishment under the control of the modern corporation seemed to have affected an unqualified human conquest of the forces of nature.'¹⁴⁷ Indeed, the industrial revolution enabled human beings to exercise a degree of control over nature never previously known in human history.¹⁴⁸ During this same period, the legal-philosophical concept of private property also changed to focus on relationships

¹⁴⁶ Bacon quoted in Farrington, above n 103, 62.

¹⁴⁷ Berry, above n 109, 138. See further 136-149.

¹⁴⁸ See further Margaret Davies, *Property: Meanings, Histories, Theories* (2007) 18.

between people and not between people and the land.¹⁴⁹ Graham captures the person-person conception of private property in the term ‘dephysicalisation.’¹⁵⁰ She defines the term as follows:

In legal theory, ‘dephysicalisation’ means the removal of the physical ‘thing’ from the property relation and its replacement with an abstract ‘right’. Dephysicalisation describes the shift from the person-thing model of property to the person-person model of property.¹⁵¹

The theoretical foundation for this notion can be traced to the writing of Jeremy Bentham. Bentham rejected the prevailing natural rights justification of property and argued that the institution could only be justified with regard to positive law.¹⁵² He writes: ‘Property and law are born together, and die together. Before laws were made, there was no property; take away laws, and property ceases.’¹⁵³ He notes further that property is not physical but ‘metaphysical, it is a mere conception of the mind.’¹⁵⁴ These comments reflect a diversification of things that might be considered ‘valuable subject matters of possession.’¹⁵⁵ For Bentham, this included ‘power, reputation and condition in life...not forgetting exemption from pain.’¹⁵⁶ Further, Bentham contended that that division of property into ‘real’ and ‘personal’ was obsolete and failed to account for a

¹⁴⁹ This increased dichotomy is recognised by Alain Pottage and Martha Mundy, who in commenting on the period following the industrial revolution argue: ‘The distinction between persons and things may be a keystone of the semantic architecture of Western law’ Alain Pottage and Martha Mundy (eds), *Law, Anthropology and the Constitution of the Social: Making Persons and Things* (2004) 3. The authors note further at 4 that Western law has played a critical role in both constituting and maintaining this distinction.

¹⁵⁰ Graham, above n 95, 134. Note that this term is also used by Kenneth Vandeveld, ‘The New Property of the Nineteenth Century: The Development of the Modern Concept of Property’ (1980) 29 *Buffalo Law Review* 325: 333. See also Nicole Graham, ‘Restoring the “Real” to Real Property Law’ in Wilfred Prest (ed), *Blackstone and His Commentaries: Biography, Law, History* (2009).

¹⁵¹ Graham, above n 95, 134.

¹⁵² Jeremy Bentham, *Commentary on the Commentaries* (1977) [first published 1823] 203. Bentham is emblematic of the radical separation of the modern from the ancient. He notes: ‘For my part, I know not that we owe any...deference to former times that we owe not to our won. I know not that we owe them any such deference as to suppose a reason for what they did, when none is visible.’

¹⁵³ Jeremy Bentham, *A Theory of Legislation* (1931) [first published 1789] 113.

¹⁵⁴ Jeremy Bentham, ‘Of Property’ in *A Theory of Legislation* in CB Macpherson (ed), *Property: Mainstream and Critical Positions* (1978) 41.

¹⁵⁵ *Ibid.*

¹⁵⁶ Jeremy Bentham, ‘Deontology’ in A Goldworth (ed), *The Collected Works of Jeremy Bentham* (1983) 283.

new economy, where land was not the sole source of wealth and power.¹⁵⁷ For example, in Bentham's submission to the Real Property Commission in 1828, he advanced a unified system of property law that was broad enough to include 'newer proprietary rights such as shares in companies and copyright.'¹⁵⁸

Bentham's political philosophy had two significant consequences for the concept of private property. To begin, by rejecting the natural rights justification of private property and seeking to expand the number of things encompassed by the institution, Bentham promoted a person-person (as opposed to a person-thing) conception. Secondly, the merging of both personal and real property into one expanded category¹⁵⁹ (based on the person-person model) transformed social wealth from land into a legal right to land. In regard to this second point Graham contends: 'In effect, what Bentham's theory of property achieved was the separation of land from the idea of property and from the body of law itself by "elevating" the entire basis of property from natural rights to cultural rights.'¹⁶⁰ Indeed, real property was no longer fixed to an external reality.¹⁶¹

Fitzpatrick comments:

Law is autonomous and self-sustaining. It is independent from any exterior reality. It is not bound by any temporal order: or, more exactly, law's time exists beyond mundane reality...Space is also transcended. Law has...the quality of everywhere-ness.¹⁶²

From this perspective private property is dephysicalised and exists only in an abstract

¹⁵⁷ Mary Sokol, 'Bentham and Blackstone on Incorporeal Hereditaments' (1994) 15 *The Journal of Legal History* 287.

¹⁵⁸ Sokol, above n 157, 287.

¹⁵⁹ Gerald Postema, *Bentham and the Common Law Tradition* (1986) 174 notes that Bentham's idea of property proposed that 'all forms of social interaction available to human beings except political relationships and institutions fall under the concept of property.'

¹⁶⁰ Graham, above n 95, 138.

¹⁶¹ *Ibid.*

¹⁶² Peter Fitzpatrick, *The Mythology of Modern Law* (1992) 56.

form.¹⁶³ This continues the anthropocentric separation of people from place and defines ‘people and culture in opposition to land and nature.’¹⁶⁴ The thing itself (land in the case of real property) is an object and receives only as much consideration as is necessary to further human good.

By the mid-eighteenth century, the conception of property as the product of Natural Law had given way to the ‘self-sufficient determination of positive law – the law posited by the sovereign.’¹⁶⁵ This meant that law need not have any regard to or be limited by morality or the environment. Instead, private property was whatever the legislators decided and their determination was ‘self-legitimizing and guaranteed by positive institutions.’¹⁶⁶ Graham critiques this conception arguing that ‘Bentham’s repression of nature forgets the ground on which it stands.’¹⁶⁷ By denying the physical aspect of property Bentham’s theory is endowed with the ‘qualities of a fable’¹⁶⁸ and as Marx states creates an ‘illusion of jurisprudence.’¹⁶⁹ Further, the separation of people from nature meant that conceptions of property focused less on environmental considerations and more exclusively on promoting the growing variety of relationships between individual human beings.¹⁷⁰ Property rights took their shape not from nature or social goals, but from the positive law. As a consequence, private property lacked an inherent form and internal moral elements. Its construction became contingent on legislative will, which was increasingly guided by economic goals.¹⁷¹

¹⁶³ Graham, above n 95, 138.

¹⁶⁴ Ibid 139.

¹⁶⁵ Fitzpatrick, above n 162, 54.

¹⁶⁶ Graham, above n 95, 139. Thomas Berry critiques the self-validating nature of human law in ‘Forward’, Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice* (2003) 13.

¹⁶⁷ Graham, above n 95, 140.

¹⁶⁸ Jacques Derrida, ‘Before the Law’ in David Attridge (ed), *Acts of Literature* (1992) 199.

¹⁶⁹ Karl Marx, *The Poverty of Philosophy* (1975) [first published 1847] 142. See Davies, above n 148, 20. See also Kevin Grey, ‘Property in Thin Air’ (1991) 50 *Cambridge Law Journal* 252.

¹⁷⁰ Coyle and Morrow, above n 51, 96.

¹⁷¹ Ibid. The authors note that this amounted to a ‘shrinking’ of the rights attached to property law.

B. Hohfeld's Analysis

By the latter part of the 19th century, Bentham's dephysicalised conception of property was established as the dominant theoretical discourse. Further, during the 1880s and 1890s, American courts began recognising new property interests and to 'define property as the right to value rather than to some thing.'¹⁷² According to Kenneth Vandavelde, 'legal commentators were acutely aware of the development of the new property' and the commercial potential it embodied.¹⁷³ However, initial determinations regarding the constitution and applicability of dephysicalised property rights were both arbitrary and confusing.¹⁷⁴ Wesley Newcomb Hohfeld wrote two seminal articles in response to this situation that sought to make 'rights-talk' clearer.¹⁷⁵

From the outset it is important to note that while Hohfeld makes reference to the concept of private property, his papers are addressed more broadly to the notion of legal rights. Consistent with Bentham's analysis, Hohfeld contends that the law weighs the 'aggregate of abstract legal relations' rather than deferring to 'figurative or fictional' categories.¹⁷⁶ In the context of property, legal rights do not refer to 'a tract of land or chattel' but 'denotes a right over a determinate thing.'¹⁷⁷ For Hohfeld, the term 'right' can be used to cover four different kinds of legal concepts.¹⁷⁸ First, the basic term 'right'

¹⁷² Vandavelde, above n 150, 333-357.

¹⁷³ Ibid 358. Vandavelde notes at 358-359: 'The concept of non physical and limited property seemed capable of embracing every valuable interest known to the law.' Among the many interests noted by Vandavelde (with case references included) were the 'right to use the mail system, the right of an employer to a free flow of labor, the right of an employee for free access to employment.' See also Charles Reich, 'The New Property' (1964) 73 *Yale Law Journal* 733.

¹⁷⁴ Vandavelde, above n 150, 358.

¹⁷⁵ Wesley Newcomb Hohfeld, 'Some Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1913) 23 and Wesley Newcomb Hohfeld, *Yale Law Journal* 16; (1917) 26 *Yale Law Journal* 710.

¹⁷⁶ Ibid (1913) 24.

¹⁷⁷ Ibid 22. See also Davies, above n 148 who notes at 43: 'The cornerstone of [Hohfeld's] analysis of property was the notion that rights *in rem* (against the world) are in essence a multitude of rights *in personam* (against a person).'

¹⁷⁸ For example, Hohfeld cites cases concerning trade competition and labour disputes. In such areas he notes there is a temptation to move from the proposition that 'I have a right to trade' to 'so you have a duty

describes a claim that is correlative to another person's duties. Next, 'liberties' (or privileges) mean that the holder has no legal duty to refrain from a particular activity.¹⁷⁹ 'Powers' describe the capacity to change legal relationships – for example through contract or a will. Finally, 'immunities' correlate with disabilities of another e.g. constitutional rights correlate with disabilities of the government to act in certain ways.¹⁸⁰ According to Hohfeld, these incidents are the core elements of all legal relationships. They have been reproduced below, together with their correlative and opposite concepts. Note that in this table, correlations are represented vertically and opposites run diagonally.

Table One: Hohfeld on Rights¹⁸¹

Right	Liability	Power	Immunity
Duty ¹⁸²	No right ¹⁸³	Liability ¹⁸⁴	Disability ¹⁸⁵

Put together, these items make up Hohfeld's eight fundamental legal conceptions.¹⁸⁶ For example, to say that X has private property in land means that others have a correlative

not to impede my trading.' He argued that such loose talk would be avoided if we realise that the term right has four distinct meanings.

¹⁷⁹ Put another way, the law may expressly protect the ability to partake in the activity in question. Note that Hohfeld uses the term 'privilege' to describe this concept. In modern legal discourse, the term 'privilege' has a different set of connotations and it is common practice today to use the term 'liberty' as a more accurate representation of Hohfeld's argument.

¹⁸⁰ For further analysis of these terms see Hohfeld, above n 175 (1913), 25-58. See also JW Harris, *Legal Philosophies* (2002) 83-93.

¹⁸¹ This table is reproduced from Harris, above n 42, 121.

¹⁸² An absence of a right to interfere.

¹⁸³ A person does not have a right to claim property.

¹⁸⁴ This exists where a person is susceptible to having their legal position altered.

¹⁸⁵ A person may not alter their legal position or someone else's.

¹⁸⁶ See further, Stephen Munzer, *A Theory of Property* (1990) 18.

duty to respect that right. Further, to say that X has a power means that they can voluntarily change their legal relationship with some other person (i.e. their tenant in the case of a lease agreement) who has a correlative liability. Finally, X may have the immunity from being fined for parking their car in a restricted area while, Y, may not have this privilege and so has a disability.

Hohfeld's analysis continues to have tremendous influence on the legal-philosophical property discourse to the present day. Stephen Munzer notes that Hohfeld's vocabulary has 'no serious rival of its kind in intellectual clarity, rigor and power.'¹⁸⁷ Indeed, Hohfeld crystallised and entrenched the scholarship of Bentham and can rightly be considered the most influential scholar under what Vandavelde terms the 'new property' – that is the shift from Blackstone's Natural Law person-thing conception to the positivist person-person conception.¹⁸⁸

The description of private property as a person-person relationship has had significant consequences for the environment. A conception of property that focuses on persons significantly diminishes the importance of the 'thing'. In the case of land law, a person-person conception is structured in a way that disregards the needs of the land. Private property is not placed based and the same generic rights can be transplanted onto any location and ecosystem.¹⁸⁹ Further, if private property in land means a relationship between X and Y (structured in terms of hierarchical rights) then we promote a conception where human duties and responsibilities are not inherent to the concept itself. While duties *may* be enforced externally by legislation, it is equally possible that they may be ignored or deliberately excluded to promote economic

¹⁸⁷ Munzer, above n 186, 19.

¹⁸⁸ Vandavelde, above n 150, 330. Vandavelde describes Hohfeld thesis the turning point from Blackstone's 'old property' and into the period of dephysicalised 'new property'. Graham critiques this demarcation at above n 95, 143-145.

¹⁸⁹ Graham, above n 95, 190-197.

development.¹⁹⁰ Hohfeld's entrenchment of property as a person-person relationship continued the anthropocentric hierarchy established in antiquity by promoting an exclusive focus on human beings. Commenting on this point, Coyle and Morrow note that a dephysicalised conception of property is not 'inherently coupled with environmentally-preserving' practices and 'a society's institutions can develop in ways which place no special emphasis on the goal of environmental protection or development.'¹⁹¹

While not considered in detail, it is also worth noting that Marx critiqued the dephysicalisation of property and removal of inherent environmental protections.¹⁹² His concept of self-realisation requires one to re-establish an unalienated connection to other human beings and the natural world, which the capitalist system had rendered both distant and opaque.¹⁹³ On this basis, Marx critiques the abstract and dephysicalised concept of private property advanced by Bentham. He contends that under this conception 'things' such as physical nature do not have intrinsic worth. Instead changing forms of social wealth mean that nature's value is measured quantitatively.¹⁹⁴ The quantitative evaluation of nature meant that it could be standardised, compared

¹⁹⁰ See for example the Roxby Downs Indenture Ratification Act 1982 (SA) <[http://www.legislation.sa.gov.au/lz/c/a/roxby%20downs%20\(indentur%20ratification\)%20act%201982/1997.12.17_\(1996.12.12\)/1982.52.PDF](http://www.legislation.sa.gov.au/lz/c/a/roxby%20downs%20(indentur%20ratification)%20act%201982/1997.12.17_(1996.12.12)/1982.52.PDF)>. This act excludes the operation of the environmental protection, aboriginal heritage and freedom of information legislation over the Olympic Dam mine site. See also Peter Burdon, 'Above the Law? Roxby Downs and BHP Billiton' (2006) <<http://www.greenleft.org.au/node/33827>>.

¹⁹¹ Coyle and Morrow, above n 51, 61.

¹⁹² For a detailed account see Graham, above n 95, 149-153. This is not to suggest that Marx held an eco-centric worldview. Indeed, Harvey notes in above n 116, 135: 'Emancipation from social want in general led Marx certainly to accept that some version of the idea that the domination of nature was a necessary condition for human emancipation and in this regard he, too, accepts a broadly instrumentalist, anthropomorphic and controlling attitude towards natural environmental conditions.' In his own words, Marx notes in *Capital: Volume Three* (1967) [first published 1894] 820: 'The realm of freedom in socialised man, the associated producers, rationally regulating their interchange with nature, bringing it under their control, instead of being ruled by it as a blind power, and achieving this with the least expenditure of energy and under conditions most favourable to, and worthy of, their human nature.'

¹⁹³ Harvey, above n 116, 135. See further Reiner Grundmann, *Marxism and Ecology* (1991) and John Bellamy Foster, *Marx's Ecology: Materialism and Nature* (2000).

¹⁹⁴ Graham, above n 95, 150. See also PJ Proudhon, *What is Property: An Inquiry into the Principle of Right and of Government* (1970) [first published 1840].

and ultimately traded. The new dephysicalised forms of property advanced by Bentham and Hohfeld needed to be brought within the system and measured against old forms of property such as land. Marx describes the integration of these two conceptions of property as a move from qualitative value to quantitative value.¹⁹⁵ Further, Steven Best argues that the process of comparison and measurement resulted in the 'concrete and particular' being dissolved from consideration.¹⁹⁶

As physical nature dissolved into the background, money became the quantitative symbol of value and standardised the evaluation of 'new property'. Marx critiqued the normative aspects of this process. In particular he argues that the language of quantitative evaluation had the potential to produce 'meaning' in the absence of 'reality'.¹⁹⁷ Further, he argued that the abstraction of property turns the entity into an abstract object (or numerical expression) and strips away its unique characteristics.¹⁹⁸ This conversion is essential to growth economics. Indeed, even after centuries of anthropocentric intellectual thought, it is easier to exploit a dollar figure than a piece of land with unique attributes and ecological functions.¹⁹⁹ A quantitative perception of nature enables us to 'act on nature, abstract from it, use it, take it apart; we can wreck it, because it is *another*, it is alien.'²⁰⁰

¹⁹⁵ Karl Marx, 'Economic and Philosophic Manuscripts' in Robert C Tucker (ed), *The Marx-Engels Reader* (1978) 93.

¹⁹⁶ Steven Best, 'The Commodification of Reality and the Reality of Commodification' in Douglas Kellner Douglas (ed), *Baudrillard: A Critical Reader* (1994) 44.

¹⁹⁷ Marx, above n 195, 93. On this point Steven Best, above n 196, 44: 'money is made out of money, profit is made through the manipulation of figures with no apparent connection to the commodity world already abstracted from social relations and activity.'

¹⁹⁸ Best, above n 196, 44.

¹⁹⁹ See for example Derrick Jensen, *Thought to Exist in the Wild: Awakening From the Nightmare of Zoos* (2007) 15. Jensen quotes from a Canadian lumberman who says: 'When I look at trees I see dollar bills'

²⁰⁰ David Suzuki, *The Sacred Balance* (1999) 191. Hannah Ardent picks up on this point and notes that the separation of people from property is environmentally unsustainable. Specifically, Ardent argues that the commodification of nature 'harbours the grave danger that eventually no object of the world will be safe from consumption and annihilation through consumption', Hannah Ardent, *The Human Condition* (1958) 362. This is of critical importance, because Ardent argues that the destruction of nature as a destruction of

Marx regarded the dephysicalisation of property as both a cultural and environmental concern. He argued that the abstraction of nature and human alienation were inherently unsustainable and threatened to unwind the interconnected fabric of nature.²⁰¹ In a statement which ought to profoundly disturb modern theories of property he maintains: 'Man lives on nature – [this] means that nature is his body with which he must remain in continuous interchange if he is not to die.'²⁰²

IV. THE LIBERAL THEORY OF PRIVATE PROPERTY

So far this chapter has sought to establish the relationship between anthropocentrism and the concept of private property. It argued that starting point for theories of property is human dominion over nature and considered how this notion was captured in early Roman and Christian conceptions of property. It then argued that during the scientific revolution the perception of human superiority and separation from nature increased and nature was conceived as a lifeless, mechanistic instrument for human happiness. This worldview helped shape legal scholarship during the industrial revolution and ultimately led to the promotion of a person-person conception of property. This model represents the dominant framework in modern property theory and promotes rights over responsibility or consideration for the land itself. This section continues to analyse the relationship between private property and anthropocentrism by considering the influence of liberal political philosophy and its focus on individual rights. Prior to this

self. Nature is a condition of human life, not something that we are separate from or that we should destroy. For further comment see Harvey, above n 116, 130-135.

²⁰¹ Karl Marx, 'Paris Manuscripts' in above n 195, 276.

²⁰² Ibid. As noted in above n 192, Marx did not advocate an ecocentric worldview and presumably his communist vision would be predicated on intensive land use.

analysis, it is important to first describe liberalism and highlight the values and ideals that it promotes.

In political philosophy, liberalism refers to a heritage of abstract thought about human nature, agency, freedom and value and its bearing on the origin and function of political and legal institutions.²⁰³ Importantly, liberals do not explicitly advocate anthropocentrism. Rather, this section contends that ultimate human value is an unquestioned assumption or starting premise from which the theory begins. Further, in contrast to communitarianism²⁰⁴, the deepest commitment of liberal political philosophy is to the individual.²⁰⁵ Indeed, liberalism holds that that the individual person is the key factor in social and political decisions. This does not exclude liberals from taking an interest in culture, community and the environment, but 'for a liberal, such interest is always secondary or derivative.'²⁰⁶ Thus, while liberalism is unquestionably passionate about people, it 'excludes social and collective entities from the realm of ultimate goods'²⁰⁷ and 'mark[s] off aspects of an individual's life from the interests and aspirations of the collectivity.'²⁰⁸

Further to this point, liberals contend that there is something particularly important in allowing individuals to direct their own lives and act on their own terms. That is, liberals exalt individual freedom (although what exactly this refers to is subject

²⁰³ See John Rawls, *A Theory of Justice* (1971); David Manning, *Liberalism* (1976) and Michael Sandel, *Liberalism and its Critics* (1984).

²⁰⁴ See Amitai Etzioni, *The Essential Communitarian Reader* (1998).

²⁰⁵ Jeremy Waldron, 'Liberalism' in Edward Craig (ed), *The Shorter Routledge Encyclopedia of Philosophy* (2005) 570.

²⁰⁶ Ibid 572.

²⁰⁷ Ibid. The grounds for this individualisation of value is often justified with reference to Immanuel Kant's proposition that each person is a moral agent and entitled to be regarded as an end in themselves, not just a means to broader social ends. See further James Otteson, 'Kantian Individualism and Political Libertarianism' (2009) *The Independent Review* 389.

²⁰⁸ Coyle and Morrow, above n 51, 62.

to controversy).²⁰⁹ Some liberals define freedom negatively and condemn force, coercion and other interference of human life. On this view, freedom flourishes when these constraints are removed and this ought to be the central concern of political authorities. Positive conceptions of liberty provide the state with a much greater role and promote the idea that freedom is something to be achieved or brought about by effective education and favourable social conditions.²¹⁰

The twin pillars of individualism and freedom have exerted significant influence on the contemporary concept of private property.²¹¹ Indeed, private property is *the* key mechanism through which liberals promote individual freedom and choice.²¹² Babie explains: 'In order for life to have meaning, some control over the use of goods and resources is necessary; private property is liberalism's means of ensuring that individuals enjoy choice over goods and resources so as to allow them to fulfil their life project.'²¹³

Consistent with Hohfeld's analysis, the liberal theory of private property is a person-person relationship. In regard to the specific rights that constitute the liberal conception theorists commonly draw on the work of Tony Honoré.²¹⁴ Commenting on this relationship Munzer notes: 'if one is to use Hohfeld's vocabulary to elaborate the sophisticated conception of property, it will help to conjoin it with an analysis of

²⁰⁹ David Manning, *Liberalism* (1976) 56.

²¹⁰ Waldron, above n 205, 572. On the relationship between freedom and liberty see further David Miller (ed), *Liberty* (1991) and ZA Pelzynski and JN Gray (eds), *Conceptions of Liberty in Political Philosophy* (1984).

²¹¹ On the history of this interaction, see Joshua Getzler, 'Theories of Property and Economic Development' (1996) 26(4) *Journal of Interdisciplinary History* 639. See also Eric T Freyfogle, 'Property and Liberty' (2007) *Illinois Public Law and Legal Theory Research Papers Series Research Paper No 07-03* <<http://papers.ssrn.com/abstract=1024574>>.

²¹² Jeremy Waldron, *The Right to Private Property* (1988) 31-40.

²¹³ Paul Babie, *Idea, Sovereignty, Eco-colonialism and the Future: Four Reflections on Private Property and Climate Change* (2010) 19(3) *Griffith Law Review* 528: 531.

²¹⁴ Tony Honoré, 'Ownership' in Anthony Guest (ed), *Oxford Essays in Jurisprudence* (1961) 107.

ownership suggested by AM Honoré.²¹⁵ Honoré argued that private property is more complicated than simply holding a 'right' or 'dominion' over a thing. Indeed, private property is more accurately conceived as a bundle of rights, liabilities, powers and duties.²¹⁶ In regard to any potential item of property, the bundle could include any of the following standard incidents: '...the claim – rights to possess, use, manage and receive income; the powers to transfer, waive, exclude and abandon; the liberties to consume or destroy; immunity from expropriation; the duty not to use harmfully; and liability for execution to satisfy a court judgement.'²¹⁷

Under this conception, private ownership includes (at a minimum) what Margaret Jane Radin terms the 'liberal triad' of use, exclusivity, and alienability.²¹⁸ Owners may have different sticks relative to their particular property right individual sticks can be disaggregated or added to the bundle.²¹⁹ Further, Honoré does not claim that the 'standard incidents' are inherent or intrinsic to the concept of private property. Indeed, Honoré is explicit that his description relates specifically to the 'liberal concept of full individual ownership.'²²⁰

The Hohfeld-Honoré combination reveals that the rights attained by property holders (whatever they are) provide individuals with the power to act in certain ways in relation to the rights of other people or groups of people.²²¹ Indeed, private property

²¹⁵ Munzer, above n 186, 22.

²¹⁶ Honoré, above n 214, 84.

²¹⁷ Munzer, above n 186, 22.

²¹⁸ Margaret Jane Radin, *Reinterpreting Property* (1993) 121-123.

²¹⁹ Joseph William Singer, 'Property and Social Relations: From Title to Entitlement' in Charles Geisler and Gail Daneker (eds), *Property and Values: Alternatives to Public and Private Ownership* (2000) 8-10. For an attempt to include environmental responsibilities into the bundle see Robert Goldstein, *Ecology and Environmental Ethics: Green Wood in the Bundle of Sticks* (2004).

²²⁰ Honoré, above n 214, 84.

²²¹ Paul Babie, 'Climate Change and the Concept of Private Property' in Rosemary Lyster (ed), *In the Wilds of Climate Law* (2010) 7.

'amounts to the decision-making authority of the holder of that right'²²² and can be used to control and use things and also to control the lives of other people.²²³ The environmental and social consequences of the liberal conception of private property have been detailed in the context of industrial farming practices,²²⁴ climate change,²²⁵ landscape fragmentation²²⁶ and wildlife law.²²⁷ Theorists within each of these areas have expressed concern that a conception of private property which focuses exclusively on individual freedom fails to account for the vast network of social and ecological relationships within which human beings exist within. Joseph William Singer captures this concern in his term 'ownership model':²²⁸

We presume that most uses of property are self-regulating, in that only the owner is legitimately interested and others have no legitimate claims to control what the owner does with his own property. Substantial freedom to control one's property without interference by government regulation is believed to promote both individual autonomy and economic efficiency.²²⁹

This model is taken for granted in mainstream property theory.²³⁰ For example, Waldron notes that the 'organising idea' of property is ownership and that it is for 'a certain specified person (rather than for anyone else or for society as a whole) to determine how a specified resource is to be used.'²³¹ More strikingly, libertarian property theorist

²²² Baker, above n 7, 742-743.

²²³ Babie, above n 3 (2010). See further Morris R Cohen, 'Property and Sovereignty', *Cornell Law Quarterly* XIII (1927) 13.

²²⁴ See Peter Burdon, 'What is Good Land Use? From Rights to Relationship' (2010) 34(2) *Melbourne University Law Review* (forthcoming).

²²⁵ Babie, above n 213, 531.

²²⁶ See Eric T Freyfogle, 'The Tragedy of Fragmentation' (2002) 32 *Environmental Law Reporter* 11321. Note also Alfred E Kahn, 'The Tyranny of Small Decisions: Market Failures, Imperfections, and the Limits of Economics' (1966) 19 *Kyklos* 23 and William Odum, *Environmental Degradation and the Tyranny of Small Decisions* (1982) 32 *Bioscience* 728.

²²⁷ See Eric T Freyfogle and Dale D Goble, *Wildlife Law: A Primer* (2009) 282-283.

²²⁸ Joseph William Singer, *Entitlement: The Paradoxes of Property* (2000) 12-13.

²²⁹ *Ibid* 3.

²³⁰ Key examples include Lawrence C Becker, *Property Rights: Philosophical Foundations* (1977) and Alan Ryan, *Property and Political Theory* (1984).

²³¹ Waldron, above n 205, 60. Waldron notes further that an absolutist conception of private property is the standard starting point for most property theorists. He writes: 'When philosophers argue about the

Richard Epstein argues that private property means the 'exclusive rights of possession, use, and disposition'²³² over a particular resource.²³³ Further, he argues that individual freedom should not be interfered with by the state, except in very rare circumstances.²³⁴

In law and economic discourse, the ownership model is taken as scripture.²³⁵ Most theorists begin from the assumption that all of nature should be privately owned and that owners should be provided freedom to use their property as they desire or exchange at will.²³⁶ For example, legal economist Richard Posner argues that 'If every valuable (meaning scarce as well as desired) resource were owned by someone (universality), ownership connotes the unqualified power to exclude everybody else from using the resource (exclusivity) as well as to use it oneself, and ownership rights were freely transferable or as lawyers say alienable (transferable), value would be maximized.'²³⁷ According to Posner, nature is a resource that should be exploited for human benefit.²³⁸ Further, the regulation of property rights is inefficient because they limit the freedom of property owners, decrease business investment, reduce jobs and

justifiability of private property, they are not interested (at least in the first instance) in the detail of the property rules of any society in particular.'

²³² Richard Epstein, *Takings: Private Property and the Power of Eminent Domain* (1985).

²³³ This language can be traced back to the language of dominion explored in part one of this chapter. See further Robert Burns, 'Blackstone's Theory of the "Absolute" Rights of Property' (1985) 54 *University of Cincinnati Law Review* 67. See also Larrisa Katz, 'Exclusion and Exclusivity in Property Law' (2008) 58(3) *University of Toronto Law Review* 275.

²³⁴ See also, Richard Epstein, 'Property as a Fundamental Civil Right' (1998) 29 *California Western Law Review* 187.

²³⁵ Singer, above n 228, 4. For an excellent discussion see Samuel Alexander, 'Property beyond Growth: Toward a Politics of Voluntary Simplicity', David Grinlinton and Prue Taylor (eds), *Property Rights and Sustainability The Evolution of Property Rights to Meet Ecological Challenges* (2011) See also Ronald Coase, 'The Problem of Social Cost' (1960) 3 *Journal Law and Economics* 1 and Richard Posner, 'Wealth Maximization Revisited' (1985) 2 *Notre Dame Journal Law, Ethics and Public Policy* 85.

²³⁶ Singer, above n 228, 4.

²³⁷ Richard Posner, *Economic Analysis of Law* (1986) 32. See further Richard Posner, 'Utilitarianism, Economics, and Legal Theory' (1979) 8(1) *Journal Legal Studies* 103. Posner argues that wealth maximization is achieved when goods and other resources are in the hands of those who value them most, and someone values a good more only if he or she is both willing and able to pay more in money to have it. The most efficient path to 'wealth maximization' is through the 'free market,' Posner argues, in which private property is 'universal,' ownership is 'unqualified,' and ownership rights are 'freely transferable.'

²³⁸ Posner, above n 237, 10.

may end up having a negative impact on people overall.²³⁹ For Posner, regulation is only justified when the markets work imperfectly or when government intervention is more expedient than market solutions. Regulation is achieved by forcing a property owner to internalise (usually through monetary means) an external cost.²⁴⁰

The image of private property that emerges from this discourse is of an institution designed to reflect liberal values and protect individual freedom. This freedom is exerted over nature and without inherent concern for either the ecological or human community.²⁴¹ Singer argues that within this framework, 'the owner has a host of powers and can use the property in almost any way' they like.²⁴² This power can be limited when it causes harm to other people or if it infringes the freedom of others to do the same.²⁴³ However, it is clear that the liberal theory of private property focuses on securing choice and freedom to satisfy individual desires. This aspect of the 'ownership model' has been described variously as 'self-regarding behaviour',²⁴⁴ 'preference-satisfaction',²⁴⁵ or 'self-seekingness'.²⁴⁶ Harris notes:

The rules of [a] property institution are premised on the assumption that, *prima facie*, [a] person is entirely free to do what he will with his own, whether by way of use, abuse, or transfer...[h]e may also, within the terms of the relevant property institution, defend any use or exercise of power by pointing out that, as owner, he was at liberty to suit himself.²⁴⁷

The liberal ownership model is misleading, morally deficient and has the potential to contribute significantly to environmental harm. As Singer contends: 'By conceiving of

²³⁹ Singer, above n 228, 5.

²⁴⁰ Posner, above n 237, 32. See further Robert C Ellickson, 'Alternatives to Zoning: Covenants, Nuisance Rules and Fines as Land Use Controls' (1973) 40 *University of Chicago Law Review* 681.

²⁴¹ Waldron, above n 205, 293 notes that individual freedom is secured by 'a complex distribution of freedoms and unfreedoms' in relation to the use and management of the 'material world'.

²⁴² Singer, above n 228, 30.

²⁴³ *Ibid* 30. This is the classic liberal idea first formulated by John Stuart Mill, *On Liberty* (1974).

²⁴⁴ Singer, above n 228, 13.

²⁴⁵ *Ibid* 30.

²⁴⁶ Harris, above n 42, 30.

²⁴⁷ *Ibid* 30-31.

property as ownership, we invite owners to use their property without regard to the needs of others.²⁴⁸ Put another way – we invite owners to ‘consider their self-interest alone – to act as if no one existed but themselves.’²⁴⁹ Conceived in this way, ownership and obligation are opposites. Indeed, liberal ownership ‘abhors obligation’ because obligations limit ownership and individual freedom.²⁵⁰ This understanding of private property privileges the interests of the owner and creates a conceptual space where they are ‘invited to live as if [they] were the only ones that mattered’ or as if they were alone.²⁵¹ Importantly, this ‘isolation’ is broader than the human community and describes a broader isolation from nature. Indeed, whether recognised or not in liberal discourse, human beings do not live alone and ‘property does not exist in isolation.’²⁵² Indeed, all tangible items of property are (in one way or another) derived from nature and our property choices have very real and immediate impacts on our community and the environment. We return to this point in chapter five when considering an ecocentric conception of private property derived from the philosophy of Earth Jurisprudence.

V. CONCLUSION

This chapter has argued that the Western concept of private property is anthropocentric and is contributing to environmental harm. This argument described private property as an indeterminate concept that reflects the social and cultural values from which it has

²⁴⁸ Singer, above n 228, 6.

²⁴⁹ Ibid.

²⁵⁰ Ibid.

²⁵¹ Ibid.

²⁵² Joseph Sax, ‘Takings, Property and Public Rights’ (1971) 81 *Yale Law Journal* 149: 152.

emerged. Using this description, the chapter explored three significant historical periods in the development of private property.

This chapter began by positing that the starting premise for Western theories of private property is human dominion over nature. This idea has its roots in Greek Stoic philosophy and Christian theology. It became entrenched in Roman law and was later developed by Christian jurists with reference to the divine grant of dominium to human beings over nature. During the scientific revolution, nature came to be perceived as a lifeless machine and a scientific method was developed that entrenched a subject/object dichotomy with nature. This perception was integral to the industrial revolution and increased exploitation of the environment. Increased economic power led to the removal of ancient Natural Law protections for the community and the environment and private property came to be defined as a person-person relationship. Finally, this chapter considered the influence of liberalism on private property. It argued that the liberal ownership model perpetuates an anthropocentric worldview by inviting owners to exercise their property rights as though they existed in isolation from nature and the human community. It argued further that this model is misleading and morally deficient. As described in more detail in chapter five, property choices occur in vast interconnected network of human and ecological relationships.

The next chapter turns to critique anthropocentrism on the basis that it does not represent a credible or scientifically valid worldview. In its place it offers the ecocentric concept of Earth community as an alternative paradigm for law. This concept holds that human beings are interconnected and dependent on a comprehensive community that includes both living and nonliving entities. It also contends that the Earth is composed of subjects and not objects to be used and exploited. Following this analysis it considers

how law, as an evolving social institution, can adapt to reflect the concept of Earth community by considering an alternative cultural narrative proposed by Berry. This discussion sets the groundwork for chapter four, which seeks to outline an ecocentric legal philosophy called Earth Jurisprudence. This philosophy is then used to construct an alternative concept of private property in chapter five.

CHAPTER THREE

EARTH COMMUNITY

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I. INTRODUCTION

A community is an intimate relationship with all living things both animate and inanimate.¹

Chapter two argued that the idea of private property reflects an outdated and environmentally harmful anthropocentric worldview. To establish this premise it presented private property as an indeterminate concept and explored its construction in antiquity, the scientific revolution and in modern liberal political philosophy. This chapter builds on this discussion to critique the anthropocentric paradigm and advance an alternative focus for law based on the ecocentric concept of Earth community.² As defined in this chapter, the concept of Earth community refers specifically to two ideas. First, human beings exist as one interconnected part of a broader community that includes both living and nonliving entities. Second, the Earth is a community of subjects and not a collection of objects.

To analyse how law can adapt to reflect the concept of Earth community this chapter returns to the notions of paradigm and paradigm shift outlined in chapter one.³ Both ideas have been employed by a growing number of theorists to interpret how laws adapt and evolve.⁴ This chapter supports the interpretation of Earth community outlined above with reference to a range of scientific disciplines, including quantum physics, ecology, autopoiesis and Gaia theory.⁵ The findings of modern science are so significant that some commentators have argued that we are currently undergoing a

¹ Mike Bell, 'Thomas Berry and an Earth Jurisprudence' (2003) 19(1) *The Trumpeter* 69: 80.

² Note that the practice of establishing the broad parameters of the community under discussion has been undertaken in other jurisprudential texts. One notable example is John Finnis, *Natural Law and Natural Rights* (1980) 134-161. This chapter is entitled 'Community, Communities and the Common Good' is used by Finnis to define the limits of Natural Law with reference to human beings and human good.

³ See page 15-17.

⁴ See for example MDA, Freeman, *Lloyds Introduction to Jurisprudence* (2008) 27-32.

⁵ See also Peter Burdon, 'The Ecocentric Paradigm' in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

second Copernican revolution.⁶ Just as Nicholas Copernicus demonstrated that the Earth was not at the centre of the Universe, modern science demonstrates that human beings are not at the centre of the Earth. Thomas Berry comments on this contemporary revelation:

If our science has gone through its difficulties, it has cured itself out of its own resources. Science has given us a new revelatory experience. It is now giving us a new intimacy with the earth.⁷

Before conducting this investigation, two caveats must first be established. First, the analysis of scientific principles is necessarily general and directed toward scientific ideas rather than mathematical formulae. The intention is to take a generalist perspective⁸ and assimilate a variety of leading voices from the scientific community that describe nature in terms of relationship and community. Second, this chapter acknowledges recent critiques of the scientific method and arguments against positing science as the only valid source of knowledge.⁹ Certainly, as Jerome Revetz has illustrated, science is not purely objective¹⁰ and is profoundly shaped by value commitments and biases.¹¹ Further, science does reveal 'truth' but limited and approximate descriptions of fact.¹²

⁶ David Suzuki, *The Sacred Balance: Rediscovering our Place in Nature* (1997) 12-15.

⁷ Thomas Berry, *The Dream of the Earth* (1988) 18.

⁸ Commenting on the benefit of a generalist approach see Lewis Mumford, *Technics and Human Development* (1967) 16: 'The generalist has a special office, that of bringing together widely separate fields, presently fenced in by specialists, into a larger common area, visible only from the air. Only by forfeiting the detail can the over-all pattern be seen, though once that pattern is visible new details, unseen even by the most thorough and competent field workers may become visible.'

⁹ This chapter does not seek to discount other disciplines' ways of understanding the relationship between human beings and nature. For example, the concept of Earth community has been advanced in theology. See Larry L Rasmussen, *Earth Community, Earth Ethics* (1997). Phenomenology is also a valid extension to the present study. For a valuable introduction to phenomenology and environmental philosophy see Neil Evernden, *The Natural Alien: Humankind and the Environment* (1999) 51-73.

¹⁰ See further Thomas Nagel, *Mortal Questions* (1992) 196.

¹¹ See Jerome Revetz, *Scientific Knowledge and its Social Problems* (1971). See also Tal Golan, *Laws of Men and Laws of Nature: The History of Scientific Expert Testimony in England and America* (2007).

¹² Fritjof Capra, 'Paradigms and Paradigm Shifts' (1986) 9(1) *Revision: The Journal of Consciousness and Change* 11: 12. For an example see Fritjof Capra, *The Web of Life: A New Scientific Understanding of Living Systems* (1996) 41.

That is – science advances through preliminary findings to a series of more suitable and subtle questions that seek to reach deeper into the essence of an entity of phenomena.¹³

The decision to rely on science to support the description of Earth community is justified in this chapter on the basis that it remains a powerful and persuasive mode of communication in Western culture. Indeed, detached from mechanistic assumptions, science is a superlative tool for investigating the nature of the physical world – it is also the distinctive discovery of our Western culture. Speaking to this point, Freya Matthews comments: '[w]e may be discontented or disappointed with its findings, and we may wish to supplement scientific method with other investigative techniques, but if a new worldview is to attain legitimacy and take root in this culture, it must ultimately have the sanction of science.'¹⁴

Following the description of Earth community, this chapter contends that it is not enough to simply put forward an alternative worldview and assume that it will influence a legal system. Instead, an explanation must also be provided that outlines how this worldview can become assimilated and entrenched broadly within law. This discussion is premised on the description of law as a reflection of culture or a 'magic mirror.'¹⁵ Just as previous and existing legal concepts, such as the idea of private property, have emerged from a cultural context, so too future legal concepts will be shaped by the culture that articulates them. As part of this discussion, this chapter considers the 'new story' proposed by Thomas Berry and Brian Swimme.¹⁶ The 'new story' offers a functional cosmology for Western culture and is written in the language of

¹³ Capra, above n 12 (1996), 41-42. Capra writes: 'The old paradigm is based on the Cartesian belief in the certainty of scientific knowledge. In the new paradigm it is recognized that all scientific concepts and theories are limited and approximate. Science can never provide any complete and definitive understanding.'

¹⁴ Freya Mathews, *The Ecological Self* (1991) 49.

¹⁵ Kermit Hall and Peter Karsten, *The Magic Mirror: Law in American History* (2009) 1.

¹⁶ Thomas Berry and Brian Swimme, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era* (1994). See also Brian Swimme, *The Universe Is a Green Dragon: A Cosmic Creation Story* (1984).

science. Rather than expressing anthropocentric values, the 'new story' is premised on the idea of Earth community and seeks to provide the foundation for a paradigm shift in human ethics and law.

II. PARADIGM SHIFT: EARTH COMMUNITY

After a time of decay comes the turning point.¹⁷

The notion of 'paradigm shift' was coined by Thomas Kuhn in the context of scientific development.¹⁸ Kuhn argues that a paradigm can only work 'so long as the tools a paradigm supplies continue to prove capable of solving the problems it defines.'¹⁹ Paradigms succeed because they provide a vision or worldview that is consistent with dominant intellectual thought and because they are physically possible or practical. According to Kuhn, a paradigm reaches crisis when alternative ideas place doubt on the existing paradigm and present a more plausible framework of meaning.²⁰ Further, the emerging paradigm may also present a more viable practice²¹ – a point with heightened meaning in the context of private property and human-Earth interaction. The process from paradigm crisis to paradigm shift occurs in discontinuous, revolutionary breaks.²² Importantly, Kuhn maintains that a paradigm shift does not necessarily equate to

¹⁷ I Ching quoted in Fritjof Capra, *The Turning Point: Science, Society, and the Rising Culture* (1983) 5.

¹⁸ See generally Thomas Kuhn, *The Structure of Scientific Revolutions* (1962). As noted in the introduction, Kuhn defines the term 'paradigm' as 'a constellation of achievements – concepts, values, techniques etc – shared by a scientific community and used by that community to define legitimate problems and solutions.'

¹⁹ Ibid 76.

²⁰ Ibid.

²¹ Ibid.

²² Ibid 77.

progress or movement toward perfection.²³ Instead a paradigm shift is a matter of adaptation and a function of time and place. That is, it succeeds only within particular social (or natural) conditions and is intimately connected with cultural values, thoughts and perceptions.²⁴

Today, it is common practice to use Kuhn's theory to describe broader cultural transformations.²⁵ 'Accordingly' physicist Fritjof Capra contends that 'what we are seeing is a shift of paradigms not only within science, but also in the larger social arena.'²⁶ Following both Kuhn and Capra, this section argues that the anthropocentric paradigm that has characterised the Western idea of private property is in a period of crisis and is being replaced by an emerging ecocentric paradigm. The decline of anthropocentrism is being brought about by a growing recognition of its contribution toward environmental harm and also by the intellectual understanding that it no longer represents an accurate description of the relationship between human beings and nature. For Kuhn the questioning and critique of dominant paradigms is the necessary first step for their replacement. Indeed it is only when a paradigm reaches its limitations that the full extent of its characteristics emerges.²⁷

During a paradigm shift, the new paradigm first emerges in outline.²⁸ Kuhn describes a pre-paradigm period where there are different schools of thought, different worldviews and value systems. The new paradigm establishes itself only when a

²³ Kuhn, above n 12, 172-173. Kuhn notes that a paradigm results 'from mere competition...for survival.' This can be contrasted with the natural progress of history articulated in GWF Hegel, *Lectures on the Philosophy of History* (1981) [first published 1840].

²⁴ Kuhn, above n 12, 172-173.

²⁵ In law see Nicole Graham, *Landscape, Property, Environment, Law* (2011) 1-8; MDA Freeman, *Lloyds Introduction to Jurisprudence* (2008) 27-32; MDA Freeman, *Current Legal Problems* (1982) 99-105 and Edwin Lemert, *The Juvenile Court System: Social Action and Legal Change* (2009); Terry Hutchinson, *Researching and Writing in Law* (2010) 9-12.

²⁶ Capra, above n 12 (1996), 5.

²⁷ Capra, above n 12 (1985) 12. Capra notes that 'before patriarchy was questioned, neither women nor men recognised its extent.'

²⁸ *Ibid.*

synthesis is produced that is sufficiently attractive to a larger number of people in the community.²⁹ Indeed, a new paradigm can only be said to exist once a community shares it broadly. In this sense, it is different from a worldview, which can be held by a single person.³⁰ While it would be too great a statement to suggest that ecocentric ethics have gained broad acceptance in society, this chapter contends that one integral aspect – the concept of Earth community – has become a new paradigm. In direct contrast to anthropocentrism, this concept describes human beings as one deeply connected to and dependent member of a broader Earth community. More controversially, this concept describes Earth as a community of subjects and seeks to remove the anthropocentric dichotomy between human beings and nature.

This section explores in detail the concept of Earth community as it is described in quantum physics, ecology, autopoiesis and Gaia theory. This detail provides a necessary platform for discussing how Western culture and ideas of law can shift to reflect this new paradigm.

1. *Quantum Physics*

At a micro level, the principles of interconnectedness and Earth community are given support by quantum physics and advancements in knowledge made during the 1920's. Prior to this time, the dominant paradigm in science was influenced by the scientific method developed during the scientific revolution.³¹ As discussed in detail in chapter two, this method posited a sharp dichotomy between subject and object and described nature as a lifeless mechanism. Under this method, it was held that parts of nature,

²⁹ Kuhn, above n 18, 78.

³⁰ Capra, above n 12 (1985), 11.

³¹ See page 61-65.

including genes or particles, could be separated from their surroundings and studied in isolation. It was further believed that all physical phenomena could be reduced to the properties of hard and solid material particles.³²

This understanding of matter began to shift during the early twentieth century when physicists investigated deeper into the structure of atoms.³³ During these investigations, scientists discovered several phenomena connected with the structure of atoms (such as X-rays and radioactivity) that could not be explained using the terms of traditional physics. Besides being objects of intense study, scientists also used these atoms and their newly understood characteristics to probe deeply into matter. For example, the alpha particles³⁴ that emanate from radioactive atoms were used as high-speed projectiles of subatomic size that could be used to investigate the inside of atoms.³⁵ As described by Capra, these alpha particles were used in a 'cosmic game of marbles' and fired at the atoms. From observation of how they deflected scientists were able to draw inferences about the atom's structure.³⁶

This exploration brought scientists unexpected findings and face-to-face with a new reality which further shifted the foundations of the existing worldview.³⁷ They found that solid material objects dissolved at the subatomic level into many smaller particles and waves.³⁸ Under the existing paradigm this discovery created a paradox - the subatomic phenomena appeared as both a particle (solid) and a wave (fluid). In time,

³² Capra, above n 12 (1996), 30. See also Phillip Bricker and RIG Hughes, *Philosophical Perspectives on Newtonian Science* (1990).

³³ The origin of this shift is widely attributed to Albert Einstein, who in 1905 published several papers on Brownian motion, the quantum nature of light and the special theory of relativity. For a valuable overview see Walter Isaacson, *Einstein: His Life and Universe* (2008) 34 and David Bohm, 'Postmodern Science and a Postmodern World' in Carolyn Merchant, *Ecology* (1994) 345.

³⁴ Alpha particles consist of two protons and two neutrons bound together into a particle identical to a helium nucleus, which is produced in the process of alpha decay.

³⁵ Capra, above n 17, 76.

³⁶ Ibid.

³⁷ Werner Heisenberg, *Philosophy and Physics* (1962) 31. See also Werner Heisenberg and Arnold J Pomerans, *The Physicists Conception of Nature* (1970).

³⁸ Capra, above n 17, 78.

the scientists solved this inconsistency by reasoning that atomic particles are both particles and waves. Indeed, they act like a particle in some instances and like a wave in others.³⁹ Capra explains, 'while it acts like a particle, it is capable of developing its wave nature at the expense of its particle nature and vice versa, thus undergoing continual transformations from particle to wave and from wave to particle.'⁴⁰ From this observation, physicists discovered that subatomic particles are best described in terms of interconnectedness.⁴¹ They do not have meaning as isolated entities and can only be understood as relations among various processes of observation and measurement. Put another way, 'subatomic particles are not things, but interconnections between things'.⁴² These in turn are 'interconnections among other things, and so on.'⁴³

This new understanding forced physicists to revise existing ways of understanding matter. In their struggle to grasp this new reality, physicists became painfully aware that existing concepts, language and their method were all inadequate to describe and explore this new paradigm.⁴⁴ Chief investigator of these experiments, Werner Heisenberg notes that at this time there did not exist a common language or means of expression, between those who still held to the old paradigm and those who were beginning to integrate the new worldview ushered in by quantum physics.⁴⁵ For many, the problem was not just intellectual, but involved a deep emotional and existential experience. Heisenberg describes this experience as follows: 'I remember a discussion with [Niels] Bohr which went through many hours till very late at night and ended almost in despair; and when at the end of the discussion I went alone for a walk

³⁹ Capra, above n 17, 79.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid. See also Brian McCusker, *The Quest for Quarks* (1983) 150.

⁴³ Capra, above n 17, 79.

⁴⁴ Ibid 65.

⁴⁵ Heisenberg, above n 37, 32.

in the neighbouring park I repeated to myself again and again the question: Can nature possibly be so absurd as it seemed to us in these atomic experiments?'⁴⁶

It took physicists time to realise that the paradoxes they encountered were a result of trying to apply traditional concepts to describe atomic phenomena. Once this was understood, they began to ask the 'right' questions and as Heisenberg notes, 'they somehow got into the spirit of the quantum theory.'⁴⁷ To move forward, the physicists had to change their whole way of thinking and find entirely new concepts and research processes. Eventually they worked through this crisis and were rewarded by deep insights into the nature of matter and of nature itself. However, even after the mathematics of quantum theory was developed, its conceptual framework was not easy to accept. Indeed, after thousands of years of anthropocentric and mechanistic thinking the researchers found their view of reality 'truly shattering.'⁴⁸ To quote Heisenberg again, '[t]he violent reaction to the recent development of modern physics can only be understood when one realises that here the foundation of physics have started moving; and that this motion has caused the feeling that the ground would be cut from science.'⁴⁹

To adapt to this new paradigm Heisenberg formulated the principle of indeterminacy, which holds that no atomic phenomenon has any intrinsic properties independent of its environment.⁵⁰ The properties it exhibits depend on 'the apparatus it is forced to interact with.'⁵¹ Niels Bohr supported this finding with his principle of complementarity.⁵² Bohr considered that particle and wave pictures represented two complementary descriptions of the same reality – each of them only partly correct and

⁴⁶ Heisenberg, above n 37, 50.

⁴⁷ Ibid 67.

⁴⁸ Capra, above n 17, 76.

⁴⁹ Heisenberg, above n 37, 53.

⁵⁰ Bohm, above n 33, 342.

⁵¹ Heisenberg, above n 37, 53.

⁵² Henry J Folse, *The Philosophy of Niels Bohr: The Framework of Complementarity* (1985) 63.

having limited application.⁵³ Yet, both pictures are needed to provide a robust account of the atomic reality and both are to be applied within the limits of precise mathematical formula constructed in Heisenberg's uncertainty principle.⁵⁴

In summary, the resolution of the particle/wave paradigm crisis forced physicists to accept a new understanding of matter. Their experiments demonstrated that at the subatomic level 'matter does not exist with certainty at definite places', but rather shows 'tendencies to exist.'⁵⁵ Further, atomic events do not occur with certainty at definite times and in definite ways, but rather show 'tendencies to occur.'⁵⁶ Consistent with the concept of Earth community, these findings demonstrate that there is no such thing as a solid and separate object. Instead, the patterns observed in physics point more directly to probabilities of interconnections rather than concrete 'things'. Heisenberg argues that '[t]he world thus appears as a complicated tissue of events, in which connections of different kinds alternate or overlap or combine and thereby determine the texture of the whole.'⁵⁷ Henry Stapp contends further that 'an elementary particle is not an independently existing unanalyzable entity...it is, in essence, a set of relationships that reach outward to other things.'⁵⁸

At a micro level, the paradigm shift in quantum physics provides some of the best evidence in support of the interconnectedness of both living and nonliving nature. The argument for transitioning from anthropocentrism to ecocentrism is now strengthened with reference to the discipline of ecology.

⁵³ Folse, above n 52, 87.

⁵⁴ Capra, above n 17, 79.

⁵⁵ Ibid 80.

⁵⁶ Ibid.

⁵⁷ Heisenberg, above n 37, 139.

⁵⁸ Henry Stapp, 'S-Matrix Interpretation in Quantum Theory' (1971) 3 *Physical Review D* 15.

2. Ecology

The word ecology derives from the Greek *oikos*, meaning 'house' or 'place to live'. Literally, ecology is the study of organisms 'at home.'⁵⁹ Ecology can be defined further as the study of the relationship between organisms or groups of organisms with their environment or the 'science of the interrelations between living organisms and their environment.'⁶⁰ Because ecology is concerned especially with the biology of groups of organisms and with functional processes on and in land, oceans and fresh water, it is also proper to define ecology as 'the study of the structure and function of nature, *it being understood that mankind is a part of nature*.'⁶¹ While the dispassionate scientific method of ecology has been called into question,⁶² it has become the discipline that most informs our understanding of interconnectedness and most visibly reflects the notion of Earth community.⁶³ In particular, ecology has enriched the way we understand nature through the concept of ecosystem. Eminent ecologist Eugene Odum introduces the concept of ecosystem in the following terms:

Living organisms and the nonliving (abiotic) environment are inseparably interrelated and interact upon each other. Any unit that includes all of the organisms (i.e. the community) in a given area interacting with the physical environment so that a flow of energy leads to clearly defined trophic structure, biotic diversity and material cycles (i.e. exchange materials between living and nonliving parts) within the system is an ecological system or an ecosystem.⁶⁴

Necessarily broad, this definition draws attention to the obligatory relationships, interdependence and causal relationships that exist in nature. Further, in direct contrast to the anthropocentric paradigm, the concept of ecosystem expressly positions human

⁵⁹ Eugene Odum, *Fundamentals of Ecology* (1971) 3.

⁶⁰ *Ibid.*

⁶¹ *Ibid.* See also Eugene Odum, *Ecology* (1966).

⁶² Evernden, above n 9, 5-22.

⁶³ See Michael Begon, *Ecology: Individuals, Populations and Communities* (1996).

⁶⁴ Odum, above n 59, 8. Note that this term has a lineage dating back to the late 1800's. For example in 1887 the American SA Forbes wrote his now classic essay on the lake as a 'microcosm.' See further SA Forbes, *The Lake as a Microcosm* (1925).

beings as one 'unit of organisms' or as part of the ecological community. This concept shifts our understanding of nature from a hierarchy with humans on top, to 'an assemblage of organisms, bound into a functional whole by their mutual relationships.'⁶⁵ A further achievement of ecology is the understanding that most organisms are not only members of ecological communities, but are also 'complex ecosystems themselves' and contain a 'host of smaller organisms that have considerable autonomy and yet are integrated harmoniously into the functioning of the whole.'⁶⁶ Neil Evernden provides a useful example of this point in regard to human beings:

[Humans] have long known that we exist in close alliance with some other species, such as the intestinal bacteria that assist our digestive efforts. But now it appears that some of the organelles in our cells are quite as independent as the chloroplasts in plants. Mitochondria, the energy providing structures within each cell, replicate independently of the cell and are composed of RNA which is dissimilar to that of the rest of the cell...the mitochondria move into the cells like colonists and continue their separate existence within. We cannot exist without them, and yet they may not strictly be 'us'. Does this mean that we must regard ourselves as colonies?⁶⁷

Outside of the human body, our interdependence is clearer still. Consider the following thought experiment.⁶⁸ Imagine that you are walking in a forest that you are familiar with. Enter the forest and feel the cool air provided by the canopy above. Walk over and sit at the base of one of the large trees that sit before you. Your nose is alerted to a strong smell at the base of the tree. You reach down and pick up a truffle that is growing freely amongst some of the other trees of the forest. You observe that trees with truffles at their base are larger and greener than those without. This is because truffles extract water and minerals from the soil and dispense them over the roots of their host. While you reflect

⁶⁵ Capra, above n 12 (1996), 33-34

⁶⁶ Ibid.

⁶⁷ Evernden, above n 9, 39.

⁶⁸ This has been adapted from Ian Lowe quoted in Suzuki, above n 6, 16.

on this reciprocal relationship, a Longfooted Poteroo⁶⁹ hops into view and stops to rest beside you. It bends down to eat the truffles and before leaving excretes on the base of another nearby tree. The spores of the truffle, now coated in rich organic matter can begin to regenerate and thereby enhance the overall health of the forest.⁷⁰ Here the human being, poteroo, truffle and eucalypt – four very different species of mammal, fungus and plant are all bound together in a remarkable web of interdependence. In this example the human being is not separate from nature, but represents a further layer of interconnectedness. At the most basic level, the human participant is breathing air produced by the forest and returning carbon dioxide. Their shoes may carry seeds in the grip to be dropped elsewhere. They may also pick the truffles for cooking and return the waste to the soil to further enrich its quality.

This is an example of an ecological or biotic community. A parallel term often used in German or Russian literature is *biogeocoenosis*, which translated means ‘life and Earth function together.’⁷¹ To help assimilate this interconnected understanding of nature scientists have begun to adopt the language of network and systems theory.⁷² In direct contrast to mechanistic science, systems theory seeks to describe the world in terms of relationships and integration. Consistent with the findings of quantum physics, it describes systems as integrated wholes and holds that its properties cannot meaningfully be reduced to smaller or isolated units.⁷³ Indeed, while it is possible to discern individual parts in a system, these parts are not isolated and the composition of

⁶⁹ An Australian marsupial now classified as rare.

⁷⁰ See further, Odum, above n 59, 11-22 and Suzuki, above n 6.

⁷¹ Eugene Odum, *Ecology: A Bridge Between Science and Society* (1997) 30.

⁷² See generally Donella Meadows, *Thinking in Systems: A Primer* (2008).

⁷³ Odum, above n 71, 29. See also Ludwig von Bertalanffy, *General Systems Theory* (1968). Bertalanffy notes at 37: ‘General systems theory is a general science of ‘wholeness’ which up till now was considered a vague, hazy and semi-metaphysical concept. In elaborate form it would be a mathematical discipline, in itself purely formal but applicable to the various empirical sciences. For sciences concerned with ‘organised wholes’ it would be of similar significance to that which probability theory has for sciences concerned with ‘chance events.’

the whole is always distinct from the sum of its parts.⁷⁴ Rather than concentrating on basic building blocks or basic substances, the systems approach highlights principles of organisation.⁷⁵ Examples of systems abound in nature. They can be noted in the mitochondria in human cells, the complex interaction of a forest and even within social systems such as an anthill, beehive or a human city.⁷⁶

The view of living systems as networks has provided a novel and more accurate representation of natural systems than the so-called hierarchies of nature.⁷⁷ Indeed, since living systems (at all levels) are networks, we can visualise them as 'webs of relationships' interacting in a network fashion with other systems. Capra provides a useful explanation on this point:

[w]e can picture an ecosystem schematically as a network with a few nodes. Each node represents an organism, which means that each node, when magnified, appears itself as a network. Each node in the new network may represent an organ, which in turn will appear as a network when magnified, and so on.⁷⁸

In this example, each scale of network reveals itself as smaller networks. The concept of Holon developed by Arthur Koestler provides another way to understand this point.⁷⁹ Koestler describes a Holon as something that is simultaneously a whole and a part.⁸⁰ Each aspect of a Holon has two opposite tendencies – 'an integrative tendency to

⁷⁴ Begon, above n 63, 677. The systems view of life is illustrated fully in the writings of Paul Weiss. See Paul A Weiss, *Hierarchically Organized Systems in theory and Practice* (1971) and Paul Weiss, *The Science of Life: The Living System - A System for Living* (1973).

⁷⁵ Capra, above n 17, 266.

⁷⁶ Ibid. See also Fritjof Capra, 'Systems Theory and the New Paradigm' in Merchant, above n 33, 334.

⁷⁷ For an excellent discussion see Thomas Burns et al, 'Hierarchical Evolution in Ecological Networks' in Masahiko Higashi and Thomas Burns, *Theoretical Studies of Ecosystems: The Network Perspective* (1991). This recognition has resulted in the related study of Human Ecology. See generally, Arthur S Boughey, *Man and the Environment: Introduction to Human Ecology and Evolution* (1975)

⁷⁸ Capra, above n 12 (1996), 35.

⁷⁹ Arthur Koestler, *The Ghost in the Machine* (1990). Ken Wilber also uses the concept Holon in his description of integral ecology, see *Sex, Ecology, Spirituality* (1995) 35-78. See also Ken Wilber, 'An Integral Age at the Leading Edge' <<http://wilber.shambhala.com/html/books/kosmos/excerptA/notes-1.cfm>>.

⁸⁰ See also Joanna Macy and Molly Young Brown, *Coming Back to Life: Practices to Reconnect Our Lives, Our World* (1998) 43.

function as part of the larger whole and a self-assertive tendency to preserve its individual autonomy.⁸¹ In both social and biological systems each Holon must assert its individuality so that the system's order is maintained. Further each Holon must also submit to the demands of the whole in order to make the system viable.⁸² These dual tendencies are opposite and complementary, just as in any health system (individual, social or ecological) where there is a balance between integration and self-assertion.⁸³

The network perspective has become increasingly central to ecology. As Bernard Patten notes: 'Ecology is networks...to understand ecosystems ultimately will be to understand networks.'⁸⁴ Further, the ecosystem concept has been the key to advances in the scientific understanding of the relationship between human beings and nature.⁸⁵ These advances unsettle the subject/object dichotomy promoted by the anthropocentric paradigm and illustrate clearly the integral interconnectedness and interdependence of all nature. This point is further supported by the concept of autopoiesis and Gaia science. We turn now to consider how these descriptions of nature support the concept Earth community.

3. *Autopoiesis and Gaia Theory*

Autopoiesis is the central concept in systems and network descriptions of nature. Humberto Maturana and Francisco Varela describe autopoiesis to mean self-

⁸¹ Capra, above n 17, 43.

⁸² Ibid. See also Brian Swimme, *From Stardust to Us: The Evolution of Life on Earth* (1998) 166-167.

⁸³ Capra, above n 17, 43.

⁸⁴ Bernard Patten, 'Network Ecology' in M Higashi and TB Burns, *Theoretical Studies of Ecosystem: The Network Perspective* (1991) 288.

⁸⁵ Capra, above n 12 (1996), 35.

organisation and production.⁸⁶ This concept is related to the physiological principle of homeostasis, which is the regulatory system whereby organisms maintain a stable internal environment despite external environmental fluctuations.⁸⁷ Circular causation is the key to understanding living systems and the flow or transformation of matter and energy that sustains life.⁸⁸ Without this function, 'organic beings do not self-maintain – they are not alive.'⁸⁹ The human body is one example of an autopoietic system. Every five days our stomach is relined; the cells in our liver regenerate every two months; our skin replaces itself every six weeks; and every year over 98% of our bodies atoms are replaced.⁹⁰ This continuous replacement metabolism is a sign of life. Maturana argues: 'Living systems...[are] organised in a closed causal circular process that allows for evolutionary change in the way the circularity is maintained, but not for the loss of the circularity itself.'⁹¹ Since all changes in the system take place within this basic circularity the components that specify the circular organisation are also maintained and produced by the system.⁹²

Autopoietic descriptions have been extensively made at the micro/cellular level and some scientists have begun applying this theory to ecosystems.⁹³ Alongside these accounts, scientists have extended the principle of autopoiesis to the Earth and

⁸⁶ See Pamela Lyon, 'Autopoiesis and Knowing: Reflections on Maturana's Biogenic Explanation of Cognition' (2004) *Cybernetics and Human Knowing* 11(4) (2004) 21. Note that sometimes autopoiesis is termed 'operational closure.' See Humberto Maturana and Francisco Varela, *Autopoiesis and Cognition: The Realization of the Living* (1980).

⁸⁷ Lyon, above n 86, 29. See also A Rosenblueth, 'Behaviour, Purpose and Teleology' (1943) 10(1) *Philosophy of Science* 18.

⁸⁸ Lyon, above n 86, 29.

⁸⁹ Lyn Margulis and Dorion Sagan, *What is Life?* (1995) 23.

⁹⁰ Ibid. Only cells, organisms made from cells and the biosphere made of organisms can metabolize and are thus autopoietic. While DNA and viruses can reproduce, they are not autopoietic, Margulis and Sagan, above n 89, 23.

⁹¹ Humberto Maturana, *Biology of Cognition* (1970) 2.

⁹² Ibid. Note that while Maturana did not enjoy great popularity in his lifetime, many of his findings have been validated by independent research. On the relationship between Maturana and subsequent developments see Lyon, above n 86.

⁹³ See for example, Capra, above n 12 (1996), 213-6.

atmosphere.⁹⁴ The Earth is autopoietic *in the sense* that it maintains itself at a relatively constant homeostatic equilibrium. There is plenty of evidence for this point. To take just one example – standard astrophysical models of the evolution of stars illustrate that the sun was once cooler than it is now.⁹⁵ The sun's radiance has increased by thirty percent since life first emerged on Earth. While this increase in luminosity should have dramatically increased the surface temperature of the Earth, fossils from ancient life confirm that the temperature of the planet has remained relatively stable.⁹⁶ In response, Lyn Margulis and Dorian Sagan argue that 'the temperature of the entire biosphere has been self-maintained...life seems to have succeeded in cooling the planetary surface to counter the overheating sun.'⁹⁷ Indeed, life forms have 'prolonged their own survival' by removing atmospheric green house gases which trap heat and by changing their surface colour and form by retaining water and growing slime.⁹⁸

Ivanovick Vernadsky first studies how this mechanism operates.⁹⁹ Drawing on the earlier work of Edward Suess¹⁰⁰ and Vasilievich Dokuchaev,¹⁰¹ Vernadsky portrayed living matter as a geological force – indeed 'the greatest of all geological forces.'¹⁰² His research illustrated that the 'biosphere of the Earth was...an integral dynamic system controlled by life' and that the 'leading factor which transforms the face of the Earth is life.'¹⁰³ In the present terminology, the biosphere of the Earth constitutes a cybernetic

⁹⁴ James Lovelock, 'Gaia' in Merchant, above n 76, 351.

⁹⁵ Margulis and Sagan, above n 89, 26. For further detailed examples see 27-29.

⁹⁶ Ibid 27.

⁹⁷ Ibid.

⁹⁸ Margulis and Sagan, above n 89, 26.

⁹⁹ Ivanovick Vernadsky, *The Biosphere: Complete Annotated Edition* (1992) [first published 1926].

¹⁰⁰ See Edward Suess, *The Face of the Earth* (1924).

¹⁰¹ See Vasilievich Dokuchaev, *Cartography of Russian Soils* (1879).

¹⁰² Lyn Margulis and Dorian Sagan, *Dazzle Gradually: Reflections on the Nature of Nature* (2007) 199.

¹⁰³ Andrey Lapo, *Traces of Bygone Biospheres* (1979) 29.

system that promotes self-regulation.¹⁰⁴ Commenting on the significance of this discovery Andrey Lapo notes:

Vernadsky saw one of the most characteristic manifestations of the orderliness of the biosphere in the presence of an ozone shield which is located above the biosphere and absorbs ultraviolet radiation deleterious to life (for us this is the most dramatic manifestation of self-regulation of the Earth's biosphere as the cybernetic system). The composition of the gaseous envelope of our planet is fully regulated by life¹⁰⁵.

Vernadsky maintained that living matter totally penetrated (and thus became involved in) what were superficially 'inanimate' processes such as weathering, water flow, and wind circulation. As interconnected members of this living system, human beings also play a role in altering and mobilising the concentrate of chemical elements of the Earth. Indeed, Vernadsky viewed human beings as constituting a 'new phase in biogeochemical evolution.'¹⁰⁶ Since Vernadsky, the terraforming capability of living organisms has been recognised more widely. As noted in the introduction,¹⁰⁷ some scientists are calling for formal recognition of the term 'anthropocene' to describe the new epoch in which human beings have become a geological force.

Vernadsky also rejected the standard classification of animal, vegetable and mineral used by his contemporaries and refused to classify and fragment the Earth's natural phenomena.¹⁰⁸ Consistent with more modern systems thinking, Vernadsky conceived life as 'far less a thing with properties' than as a 'happening, a process.'¹⁰⁹ Controversially, Vernadsky eschewed philosophical, historical and religious notions of

¹⁰⁴ Margulis and Sagan, above n 89, 26.

¹⁰⁵ Ibid 21.

¹⁰⁶ Vernadsky, above n 99, 56. See also Margulis and Sagan, above n 102, 200.

¹⁰⁷ See page 6.

¹⁰⁸ Margulis and Sagan, above n 102, 200.

¹⁰⁹ Vernadsky, above n 99, 56.

what was and what was not alive. Instead, he described the 'everywhereness of life'¹¹⁰ in seemingly inanimate processes of geology, water and wind. He described minerals as he would organisms – calling them 'living matter.'¹¹¹

Vernadsky's broad definition of life enabled him to extend the scope of his research beyond biology or any other traditional discipline. His focus turned to the Earth's crust – more specifically to the myriad of beings whose reproduction and growth influence matter on a global scale.¹¹² In describing this process, Vernadsky contrasted life with gravity and noted that while gravity pulls material vertically toward the Earth's centre, life moves matter horizontally across the surface.¹¹³ Further, Vernadsky argued that a special 'thinking' layer of organised matter grew and changed the Earth's surface.¹¹⁴ To describe this Vernadsky adopted the term *nöosphere*, from the Greek *nöos* or mind.¹¹⁵ For Vernadsky, the *nöosphere* referred to humanity and technology as an integral part of the planetary biosphere. The *nöosphere* became central to demonstrating the role of life in shaping the planet and the importance of understanding the terraforming potential of all species with consciousness.

Vernadsky's investigations provided the groundwork for James Lovelock and Lynn Margulis development of the Gaia hypothesis.¹¹⁶ Importantly, while Vernadsky described both organisms and minerals as 'living matter', the Gaia hypothesis describes

¹¹⁰ Vernadsky, above n 99, 56.

¹¹¹ Ibid.

¹¹² Margulis and Sagan, above n 89, 45.

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Note that this term was later adopted by French philosopher and Jesuit priest Teilhard de Chardin who in turn had tremendous influence on the thinking of Thomas Berry. Vernadsky was an atheist and pictured life on Earth as a global chemical reaction, Dorion Sagan, *Biospheres: Metamorphosis of Planet Earth* (1990). In contrast, de Chardin took the *nöosphere* to be a vehicle for achieving a global spiritual transformation. See further Teilhard de Chardin, *The Future of Man* (1977).

¹¹⁶ James Lovelock and Lynn Margulis, 'Biological Modulation of the Earth's Atmosphere' (1974) 21 *Icarus* 471.

Earth's surface in its entirety as 'alive'.¹¹⁷ Lovelock explains further: 'The entire range of living matter on Earth from whales to viruses and from oaks to algae could be regarded as constituting a single living entity capable of maintaining the Earth's atmosphere to suit its overall needs and endowed with faculties and powers far beyond those of its constituent parts.'¹¹⁸ Further, he defined Gaia as '[a] complex entity involving the Earth's biosphere, atmosphere, oceans, and soil; the totality constituting a feedback of cybernetic systems which seeks an optimal physical and chemical environment for life on this planet.'¹¹⁹

Gaia theory emerged from the realisation that biomass modifies atmospheric conditions to achieve suitable homeostasis for the biosphere. The research of Lovelock and Margulis illustrated that the Earth possesses a cybernetic and homeostatic feedback system that operates automatically (without consciousness) by the biota, leading to a broad stabilisation of the Earth's chemical composition and global temperature. From this initial hypothesis, Lovelock claimed the existence of a 'global control system' of ocean salinity, atmosphere composition and surface temperature.¹²⁰ In explaining this point, he notes:

Seen in all its shining beauty against the deep darkness of space, the Earth looks very much alive. This impression of life is real. Only a planet with abundant life and able to retain its water and regulate its unique atmosphere and climate could appear so different from its sister planets, Mars and Venus, both of which are dead. Of course the Earth is not alive like an animal, able to reproduce itself and have its progeny evolve in competition with other animals. It is a Superorganism, alive like the great ecosystems or some giant tree, the largest life form we yet know. I think it wrong of science to deny the status of life intermediate between inanimate matter and a sentient organism, yet greater and longer lived than most organisms.¹²¹

¹¹⁷ Lovelock and Margulis, above n 116, 471.

¹¹⁸ James Lovelock, *Gaia: A New Look at Life on Earth* (1979) 18.

¹¹⁹ *Ibid.*

¹²⁰ This argument is not settled and subject to criticism. See James Kirchner, 'The Gaia Hypothesis: Fact, Theory, and Wishful Thinking' (2002) 52(4) *Climatic Change* 391. See also Stephen Schneider, *Scientists Debate Gaia: The Next Century* (2004).

¹²¹ James Lovelock, *Gaia: The Practical Science of Planetary Medicine* (1991) 36. For a helpful introduction to the concept of superorganisms see Suzuki, above n 6, 140-144.

As explained by Margulis, Gaia theory is more subdued. She notes that 'the temperature of the planet, the oxidation state and other chemistry of all of the gases of the lower atmosphere (except helium, argon, and other nonreactive ones) are produced and maintained by the sum of life.'¹²² Importantly, Margulis emphasises that Gaia theory is a biological idea and rejects the term 'organism' in her interpretation.¹²³ Consistent with other criticisms of the theory¹²⁴ she argues that reference to such terms is a misinterpretation and aimed at achieving political goals. She contends:

Lovelock's position is to let the people believe that Earth is an organism, because if they think it is just a pile of rocks they kick it, ignore it, and mistreat it. If they think Earth is an organism, they'll tend to treat it with respect. To me, this is a helpful cop-out, not science.¹²⁵

Despite this difference, Lovelock and Margulis agree on the fundamental principles of Gaia science and in particular that nature's interconnected systems play a critical role in regulating the internal consistency of Earth. It is this function that gives rise to the notion that Earth is autopoietic and not the broader range of factors common to living organisms and noted by Maturana and Varela.¹²⁶ Indeed, just as relations among the body's cells regulate temperature and blood chemistry, so planetary regulation occurs in response to interaction among the Earth's living inhabitants.¹²⁷ From this perspective, 'life does not exist on Earth's surface, so much as it *is* Earth's surface.'¹²⁸ This is not a metaphysical or spiritual claim, but arguably one of the most important scientific discoveries of the last century. As Margulis and Sagan note: 'Earth is no more a planet-

¹²² Lynn Margulis, *Gaia is a Tough Bitch* (2007) <<http://www.edge.org/documents/ThirdCulture/n-Ch.7.html>>.

¹²³ Ibid.

¹²⁴ See Stephan Jay Gould, 'Kropotkin was no Crackpot' (1997) 106 *Natural History* 12 who criticised Gaia as merely a metaphorical description of Earth processes.

¹²⁵ Margulis, above n 122.

¹²⁶ See page 105-106.

¹²⁷ Margulis and Sagan, above n 89, 28.

¹²⁸ Ibid.

sized chunk of rock inhabited with life than your body is a skeleton infested with cells.¹²⁹

Gaia theory is important to Berry's notion of Earth community. Like Lovelock, Berry was comfortable with mythic and symbolic interpretations of science – he notes that the 'the more primordial realities can only be spoken of in a symbolic manner.'¹³⁰ He also refused the description of Earth as an inert, dead world of objects to be exploited by humans. Instead he notes: 'We need to think of the planet as a single, unique, articulated subject to be understood in a story both scientific and mythic.'¹³¹ He explained what he meant by speaking of the Earth as a living planet in terms that both included and went beyond Gaia theory:

This term, in my own understanding, is used, neither literally nor simply metaphorically, but as analogy, somewhat similar in its structure to the analogy expressed when we say that we 'see', an expression used primarily of physical sight but also used of intellectual understanding. A proportional relationship is expressed...The common quality is that of subjective presence of one form to another. In this experience, the identity of each is enhanced, not diminished.¹³²

Commenting further Berry re-iterates that human existence is both derived and sustained through mutual relationships between each component of the Earth.¹³³ As evidenced by Gaia theory, this expressly includes both living and nonliving entities. From this perspective, it does not make sense to separate human beings from nature. Rather, the Earth is a single integral community that includes human beings.¹³⁴

¹²⁹ Margulis and Sagan, above n 89, 28.

¹³⁰ Thomas Berry, 'The Gaia Theory: Its Religious Implications' (1994) 22 *ARC: The Journal of the Faculty of Religious Studies, McGill University* 7. This paper is reproduced in Thomas Berry, *The Sacred Universe* (2009) 113-116. On this point see also Ronald W Clark, *Einstein: The Life and Times* (2007) 243: 'Albert Einstein was asked one day by a friend "Do you believe that absolutely everything can be expressed scientifically?" "Yes, it would be possible," he replied, "but it would make no sense. It would be description without meaning – as if you described a Beethoven symphony as a variation in wave pressure.'

¹³¹ Berry, above n 130, 18-19.

¹³² *Ibid* 14-15.

¹³³ Berry and Swimme, above n 16, 243.

¹³⁴ *Ibid*.

III. CULTURAL AND LEGAL CHANGE

This brief description of modern science presents a description of the Earth that is characterised by interconnectedness. In direct contrast to the anthropocentric paradigm, the concept of Earth community seeks to transcend the subject/object dichotomy and place human beings firmly within the web of life. Contemporary science illustrates that human beings are intimately connected to and dependent on the Earth. There is no evidence to support the anthropocentric worldview and its assertion that nature exists to satisfy human preferences. Instead, we are one member of the mammalian order¹³⁵ and a 'subsystem of the Earth system.'¹³⁶ For this reason Berry argues that the Earth community ought to be recognised as primary in human affairs:

[T]he planet Earth constitutes a single integral community. It lives or dies, is honoured or degraded, as a single interrelated reality. As regards the future, it can be said quite simply that the human community and the natural world will go into the future as a single...community or we will both experience disaster on the way.¹³⁷

This statement is aptly captured in the Earth Charter, which was the outcome of a decade-long, worldwide and cross-cultural consultation. Interwoven into its text are statements and principles drawn from the Universal Declaration of Human Rights, nongovernmental declarations, contemporary science, and reports of the seven UN summit conferences during the 1990s, including the Earth Summit in 1992. The Earth Charter was finalised and launched as a people's charter by the Earth Charter Commission in 2000. A full appreciation of the charter can only be gained from reading the document in full. Nonetheless, some key statements are extracted below:

¹³⁵ Thomas Berry, 'The Viable Human' 16(2) (1993) *Re-vision* 53 and Thomas Berry and Brian Swimme, *The Universe Story* (1992). See also David C Korten, *The Great Turning: From Empire to Earth Community* (2007); Roger S Gottlieb (ed), *The Ecological Community* (1996) and Rasmussen, above n 9.

¹³⁶ Thomas Berry, *The Sacred Universe* (2009) 95-96.

¹³⁷ *Ibid* 96.

The Earth Charter is:

- (1) Our voluntary, unconditional commitment:
We stand at a critical moment in Earth's history, a time when humanity must choose its future. As the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise. To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny.
- (2) To those relationships with other persons, nature, and the creativity of the universe recognized as embodying the goodness, rightness and truth of our being
Principle 1a. Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings.
- (3) The moral obligations required to maintain and fulfil these relationships in the midst of the inevitable uncertainties of history and the physical environment
Principle 12. Uphold the right of all, without discrimination, to a natural and social environment supportive of human dignity, bodily health, and spiritual well-being, with special attention to the rights of indigenous peoples and minorities.
Principle 16f. Recognize that peace is the wholeness created by right relationships with oneself, other persons, other cultures, other life, Earth, and the larger whole of which all are a part.
- (4) And the community of those who are faithful to the covenant. Towards this end, it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.¹³⁸

Demonstrating the broad acceptance of these ideas, the Earth Charter has been formally adopted by over 4,800 organisations around the world, including governments and international bodies such as the International Union for the Conservation of Nature and the United Nations Educational, Scientific and Cultural Organization.¹³⁹ It is also recognised as a 'soft law' document by an increasing number of international lawyers¹⁴⁰ and a moral covenant for those who endorse its principles.

¹³⁸ See <<http://www.Earthcharterinaction.org/content/pages/Read-the-Charter.html>>. See also J Ronald Engel and Brendan Mackey, 'The Earth Charter, Covenants, and Earth Jurisprudence' in Peter Burdon (ed), *An Invitation to Wild Law* (2011). Note also Tara Cullis and David Suzuki, *The Declaration of Interdependence: A Pledge to Planet Earth* (2010).

¹³⁹ See <<http://www.earthcharterinaction.org/content/pages/Endorse.html>>.

¹⁴⁰ The Earth Charter Initiative, *What is the Earth Charter?* (2011) <<http://www.earthcharterinaction.org/content/pages/What-is-the-Earth-Charter%3F.html>>. Soft law documents like the Universal Declaration of Human Rights are considered to be morally, but not legally, binding on state governments that agree to endorse and adopt them, and they often form the basis for the development of hard law.

Visible civil society documents such as the Earth Charter are critical for assisting ecocentric ethics to take root and develop within society.¹⁴¹ Moreover, because law is a reflection of social values, they also play a role in facilitating further legal developments. This latter point is based on Kermit Hall's celebrated description of law as a magic mirror,¹⁴² presented in the introduction to this thesis.¹⁴³ This description of law was employed for the purpose of legal history in chapter two – specifically, to trace the development of the idea of private property. In this chapter, Hall's description is used to consider the development of law in the future. Certainly, if Hall is correct that law has developed over time to reflect the 'values and assumptions of past generations'¹⁴⁴ then it follows that the future of law can equally be determined by the development of these factors.¹⁴⁵ Put another way, Hall's description of law implies that if anthropocentric values and assumptions were to change, then this could induce a change in law.¹⁴⁶

Berry sought to contribute to the transition from anthropocentrism to ecocentrism through the medium of story. Because of Berry's centrality to the philosophy of Earth Jurisprudence, it is important to pause and consider his method for shifting cultural values toward Earth community. This analysis provides the necessary introduction and background knowledge to appreciate the application of his ideas to human law and legal philosophy considered in chapters four and five.

¹⁴¹ On the importance of civil society see Klaus Bosselmann, 'Earth Democracy: Institutionalizing Sustainability and Ecological Integrity' in J Ronald Engel, Laura Westra and Klaus Bosselmann (eds), *Democracy, Ecological Integrity and International Law* (2010) 100-101.

¹⁴² Hall and Karsten, above n 15.

¹⁴³ See pages 11-12.

¹⁴⁴ Hall and Karsten, above n 15, 379.

¹⁴⁵ See also Kathy Laster, *Law as Culture* (2001).

¹⁴⁶ It is recognised that this thesis is contestable. For example Lord Mansfield famously noted that the law 'works itself pure', *Omychund v Baker* [1744] 26 ER 15, [24]. Lon Fuller has argued that since good is more logical than evil, the result of the reduction of contradiction through common-law reasoning will necessarily 'pull those decisions toward goodness', 'Positivism and Fidelity to Law' (1958) 71 *Harvard Law Review* 630: 636.

1. *The New Story*

Thomas Berry used story as a method to shift Western culture from an anthropocentric worldview to the concept of Earth community.¹⁴⁷ This approach was influenced by his training as a Passionist priest and his belief in the material significance of cosmology in cultural vitality, transformation and survival.¹⁴⁸ Berry argued that all societies live with some form of narrative that shapes and guides personal and collective action and interactions.¹⁴⁹ Outside of this story (be it scientific or religious) there is no context in which human life can function in a meaningful way.¹⁵⁰ Berry's ideas for a 'new story' began in the early 1970s following the emergence of public discourse on the environmental crisis.¹⁵¹ He summarises the roots of his work as follows:

I studied history and philosophy to find out and test how people found meaning. I wanted to go back through the whole human tradition and test the whole process, because it was obvious from the beginning, going into religious life, that the process was not working...our modern world was not working. Christianity in this sense is not working...Religion is assuming no responsibility for the state of the Earth or the fate of the Earth...somehow, when I was quite young, I saw the beginning of biocide and genocide.¹⁵²

Berry first published 'The New Story' in 1978 as part of the inaugural Teilhard Studies

¹⁴⁷ For an overview see Peter Burdon, 'The Jurisprudence of Thomas Berry' (2011) 11 *Worldviews: Global Religions, Culture, and Ecology* (forthcoming).

¹⁴⁸ Heather Eaton, 'Introduction to the Special Edition on Thomas Berry's The Great Work' (2001) 5(1) *Worldviews: Global Religions, Culture, and Ecology* 1. See also <<http://www.thomasberry.org/Essays/IntroductionToTheSpecialEdition.html>>.

¹⁴⁹ Other authors to argue that knowledge is structured by narrative include Brian Boyd, *On the Origin of Stories: Evolution, Cognition, and Fiction* (2010). This idea can also be noted in indigenous communities, see Julian E Kunnie and Nomalungelo I Goduka, *Indigenous Peoples' Wisdom And Power: Affirming Our Knowledge Through Narratives* (2006).

¹⁵⁰ See also Anne Marie Dalton, *A Theology for the Earth: The Contributions of Thomas Berry and Bernard Lonergan* (1999); Thomas Berry, *Befriending the Earth: A Theology of Reconciliation Between Humans and the Earth* (1991); Thomas Berry, *Thomas Berry and the New Cosmology* (1991) and Ervin Laszlo and Allan Combs, *Thomas Berry, Dreamer of the Earth: The Spiritual Ecology of the Father of Environmentalism* (2011).

¹⁵¹ For a discussion of Berry's project of articulating a functional cosmology see Brian Swimme, 'Berry's Cosmology' (1987) 2-3 *Cross Currents* 218.

¹⁵² Stephen Dunn, Thomas Clarke and Anne Lonergan, *Befriending the Earth: A Theology of Reconciliation Between Humans and the Earth: Thomas Berry and Thomas Clark* (1991) 143-144.

journal.¹⁵³ It was revised and published again in 1988 in his classic book *Dream of the Earth*. Berry opens this essay by contending:

It is all a question of story. We are in trouble now because we do not have a good story. We are in between stories. The old story, the account of how the world came to be and how we fit into it, is no longer effective. Yet we have not learned a new story.¹⁵⁴

The traditional myths of Western culture have sustained generations of human beings. As discussed in chapter two with reference to Christian theology,¹⁵⁵ mythology has played a key role in shaping our perceptions of nature.¹⁵⁶ As was evident from this discussion, mythology does not always promote harmony or make people behave in a moral way. However, the traditional stories of Western culture have provided a 'context in which life could function in a meaningful manner.'¹⁵⁷ Berry critiques Christian theology and humanist philosophy on the basis that it had become dysfunctional and remained stagnant in response to modern knowledge regarding the relationship between human beings and nature. In response he argued: 'We need something that will supply in our times what was supplied formerly by our traditional religious story...we need a story that will educate us, a story that will heal, guide and discipline us.'¹⁵⁸

In developing a 'new story', Berry was deeply influenced by Italian philosopher Giambattista Vico (1668-1744).¹⁵⁹ Vico's most significant influence on Berry was in

¹⁵³ Thomas Berry, 'The New Story' (1978) 1 *Teilhard Studies* 1. The Journal was named after French Jesuit Scholar Pierre Teilhard de Chardin. On the influence of Teilhard on Berry's work see Dalton, above n 150, 61-77.

¹⁵⁴ Thomas Berry, *The Dream of the Earth* (1988) 123.

¹⁵⁵ See page 56-59.

¹⁵⁶ Note that while orthodox Western Christianity has played a key role in shaping a negative relationship with the environment, this is not the case with all Christian traditions. See for example Roger S Gottlieb, *The Oxford Handbook of Religion and Ecology* (2006) and Paul Babe, 'Two Voices of the Morality of Private Property' (2007) 23 *Journal of Law and Religion* 101.

¹⁵⁷ Berry, above n 154, 123.

¹⁵⁸ *Ibid* 124. Note that while Berry refers to religion, it is entirely possible to tell the 'new story' in a secular fashion.

¹⁵⁹ See Thomas Berry, *The Historical Theory of Giambattista Vico* (PhD Thesis, American Catholic University,

regard to his methodology as a cultural historian. Vico's writing enjoyed a renaissance during the 1960s as branches of cultural theory shifted from the isolation and description of unit ideas,¹⁶⁰ to the linking of 'intellectually satisfying concepts' over history to see how thought itself is 'shaped by changes in our mindset.'¹⁶¹ Vico for example described historical periods in terms of large, sweeping categories. Through this macrophase approach, Vico identifies three historical periods – the age of the Gods, the age of the heroes and the age of humans.¹⁶² Briefly, the first period is characterised by theocratic government and 'primitive' mythology. The second period is characterised by aristocratic government, slavery and broad class conflict. Finally, during the third age democracies appear and the power of reason and human rights emerge. Corresponding to each age are different laws, customs, arts, languages and forms of economics. Further, at each stage, a different human faculty operates, namely 'sensation, imagination and intellect' respectively.¹⁶³ Vico contends that this cycle recurs during human history as we shift from 'savage' to 'civilized' states and from 'myth' to 'rationality'.¹⁶⁴ The role of poetry, natural wisdom and intuition are crucial for this transition and the establishment of nations. Vico describes transition in terms of 'barbarism and reflection' and in passing through phases, history moves toward 'a creative barbarism of sense.'¹⁶⁵ Vico's description of people in the state of barbarism has strong parallels to contemporary Western societies. He writes:

Such people, like so many beasts, have fallen into the custom of each man thinking only of his own private interests and have reached the extreme of delicacy, or better pride, in which like wild

1949). Berry also notes that Vico was a major influence on this thought in a series of talks he gave in 1989. See Thomas Berry, *Human Presence in the Earth Community: Tape Five* (1989) Audiotape.

¹⁶⁰ For example Arthur O Lovejoy's, *The Great Chain of Being* (1960).

¹⁶¹ Patrick H Hutton, 'Vico's Significance for the New Cultural History' (1985) 3 *New Vico Studies* 74.

¹⁶² Thomas Goddard Bergin and Max Harold Fisch, *The New Science of Giambattista Vico* (1970) xi.

¹⁶³ Giambattista Vico quoted in Mary Evelyn-Tucker, 'Editors Afterword' in Mary-Evelyn Tucker (ed), *Evening Thoughts: Reflections on Earth as Sacred Community* (2006) 154.

¹⁶⁴ Giambattista Vico, *The New Science* (1976) [first published 1725] 34.

¹⁶⁵ *Ibid.*

animals they bristle and lash out at the slightest displeasure. Thus no matter how great the throng and press of their bodies, they live like wild beasts in deep solitude of spirit and will.¹⁶⁶

The clearest indication of Berry's alignment with Vico's approach lies not only in his consistent construal of history in terms of recognisable ages but also in his characterisation of these ages in terms of decline followed by deep intellectual change.¹⁶⁷ Berry's first delineation of the eras of human history proposed four phases: the tribal-shamanic, the religious-cultural, the scientific-technological and the ecological or Ecozoic.¹⁶⁸ Consistent with Vico, Berry associated a predominant mode of human thought and activity within each of these periods. The tribal-shamanic was characterised by human focus on 'the ultimate mystery of the universe' and 'creativity in the expression of this sensitivity.'¹⁶⁹ The religious cultural period or classical period saw an increase in social stratification, sacrificial rituals, articulated theologies and spiritual disciplines in cultures that are now considered the great civilizations of the world. During the scientific-technological period Western culture concentrated on rational objectivity and technological progress.¹⁷⁰

While recognising the positive aspects of the present period, Berry's description is akin to Vico in accentuating its negative aspects. He describes the barbarism of the present age where our relationship to nature is being repressed by an overriding anthropocentric worldview. In contrast, the critical feature of the emerging ecological age is a paradigm shift in human consciousness toward relationship with nature and recognition of the Earth community. This shift is far greater than a rationalist response

¹⁶⁶ Vico, above n 164, 381.

¹⁶⁷ Berry, above n 154, 39-40.

¹⁶⁸ Thomas Berry, 'Perspectives on Creativity: Openness to a Free Future' in Francis A Eigo (ed), *Whither Creativity, Freedom, Suffering? Humanity, Cosmos, God* (1981) 12.

¹⁶⁹ Berry, above n 154, 39.

¹⁷⁰ *Ibid.*

or an attempt at a technocratic fix.¹⁷¹ It is a paradigm shift in human perception and associated values. Berry writes:

The achievements [modern scientific, industrial, rational] which are sometimes designated as the full realization of the human mode of being, have a certain tendency to disintegrate in the manner then we are presently experiencing. Giambattista Vico...considered that the eighteenth century was the period when a second barbarism, a barbarism of refinement, erupted in the civilizational enterprise. A new descent into a more primitive state must then come about, a new reimmersion in the natural forces out of which our cultural achievements came about.¹⁷²

Unlike Vico, Berry did not seek to construct a 'new science' through which to study human culture. Instead, Berry articulated a vision and attempted to persuade people to think and to act in what he saw as a respectful and mutually beneficial way toward nature and each other. He also believed that Western culture would only go through a paradigm shift if the principles underlying the ecological age were presented in a broadly accessible way. To this end, he argued that historical development was more than a cumulative rational process. As Anne-Marie Dalton notes: 'Human action is driven by a complex interaction of emotion, practical judgment and communal interaction accessible to each generation on the basis of our common humanity and encapsulated in the enduring language, symbols and artistic expression of any culture.'¹⁷³ Despite the fluctuations of time, Berry recognised that the medium of story has remained a constant and powerful mode of communication throughout human history. He argues further that story has the ability to connect the 'paradigmatic structure of the depth of the human psyche to the human context of cultural narrative.'¹⁷⁴

To command reasoned loyalty from modern society, the 'new story' is told in the

¹⁷¹ Thomas Berry, 'Technology and the Nation State in the Ecological Age' *Riverdale Papers VIII* (1981) 27. See also Berry, above n 154, 50-69.

¹⁷² Berry, above n 154, 201. On this point see Dunn, Clarke and Lonergan, above n 152, 94-95.

¹⁷³ Dalton, above n 150, 21.

¹⁷⁴ Berry and Swimme, above n 16, 228.

language of science and mathematical cosmology.¹⁷⁵ Its content covers many of the scientific insights presented in Part II of this chapter.¹⁷⁶ The ‘new story’ is also far broader than human history and the delineation of periods noted above. It assumes that the Earth and the universe itself emerged in a succession of events and hence constitutes a story.¹⁷⁷ It begins with the ‘flaring forth’ of the primordial fireball and the stages of early evolution, as they are presently understood and accepted by most scientists. It then proceeds onto the formation of the planets and the geographical and biological developments on planet Earth. Here it traces the evolution of pre-life forms, through the emergence of life up to and including human life. In this sense, the ‘new story’ is also a history. Importantly, by extending the narrative beyond human history, Berry also continues his critique of anthropocentrism and the idea that the Earth exists for human beings. Brian Swimme and Matthew Fox comment on this point: ‘To consider human history in isolation is equivalent to expecting to find the full meaning of a novel on its last page.’¹⁷⁸ This is an accurate analogy, for as biologist Jayne Benyus argues:

Homo sapiens are an incredibly young species, we don’t think of ourselves as young, but we are. We came very late in the calendar year of the Earth. If the Earth calendar started on January 1 and now we are at December 31st, humans got here at fifteen minutes before midnight on December 31 and all of recorded history has blinked by in the last sixty seconds.¹⁷⁹

Berry’s ‘new story’ marks a shift away from human history, to the comprehensive

¹⁷⁵ Dalton, above n 150, 84. Dalton notes that Berry viewed science as ‘inherently mythic.’ Berry did not take up the academic debate regarding the status of narrative as socially constructed or inherent in events. For a discussion on this topic see Stanley Hauerwas and L Gregory Jones, *Why Narrative? Readings in Narrative Theology* (1997).

¹⁷⁶ Alongside the principles of interconnectedness and autopoiesis Berry also highlighted the principle of differentiation or diversity. See Burdon, above n 147. While not uncommon today, as a Passionist priest Berry’s appeal to science was unconventional for the period. On the relationship between the new story and theology see Dalton, above n 150, 122-127.

¹⁷⁷ In more poetic fashion, he referred to this quality of the emerging universe as the universe itself telling the story. See Dunn, Clarke and Lonergan, above n 152, 132.

¹⁷⁸ Brian Swimme and Matthew Fox, *Manifesto! For A Global Civilization* (1982) 22.

¹⁷⁹ Janine Benyus quoted in *The 11th Hour: Turn Mankind’s Darkest Hour Into Its Finest* (Directed by Leonardo DiCaprio, Warner Brothers Pictures, 2007) 00:07:52.

history of the universe and communicates the idea that human beings are one part of a greater process. Further and perhaps most importantly for Berry, the 'new story' is not finished. Rather, the Earth is part of an irreversible emergent process. To make this point, Berry draws on the work of French Jesuit, Teilhard de Chardin (1881-1955) and his appreciation of developmental time.¹⁸⁰ Teilhard constantly noted that since Darwin's origin of species, we have gained awareness that the Earth is not static in development, but a continually unfolding cosmogenesis.¹⁸¹ Teilhard suggests that this perspective provides a distinctive realisation regarding our place in the universe:

For our age to have become conscious of evolution means something very different from and much more than having discovered one further fact...It means (as happens with a child when he acquires the sense of perspective) that we have become alive to a new dimension. The idea of evolution is not, as sometimes said, a mere hypothesis, but a condition of all experience.¹⁸²

For Berry, the 'new story' is the primary context for understanding the immensity of cosmogenesis. He argues that we do not live in a 'spatial mode of consciousness' where time is experienced as a 'seasonal renewing sequence of realities that keep their basic identify in accord with the Platonic archetypal world.'¹⁸³ Instead, we live in a 'cosmogenesis'. That is, a 'universe ever coming into being through an irreversible sequence of transformations moving, in the larger arc of development, from a lesser to a greater order of complexity and from a lesser to greater consciousness.'¹⁸⁴ As the reality of developmental time is assimilated in Western culture, Berry felt that it would lead to a greater understanding of human connectedness to nature. He contends:

¹⁸⁰ Berry, above n 163, 154. See also Teilhard de Chardin, *Science and Christ* (1968) 193. See also Loren Eiseley, *The Immense Journey* (1946) and *The Firmament of Time* (1960).

¹⁸¹ Chardin, above n 180, 193. Note that Teilhard used the term 'cosmogenesis' to describe the cosmological process of the creation of the Universe

¹⁸² Chardin, above n 180, 193.

¹⁸³ Thomas Berry, *The Great Work* (1999) 26.

¹⁸⁴ *Ibid.*

The human emerges not only as an Earthling, but also as a worldling. We bear the universe in our being as the universe bears us in its being. The two have a total presence to each other and to that deeper mystery out of which both the universe and ourselves have emerged.¹⁸⁵

For Berry, the idea of cosmogenesis and the recognition that the knowledge we now possess about the universe can be understood and described in narrative telling was the 'single greatest achievement of the entire scientific venture from Copernicus to the present.'¹⁸⁶ Importantly, the idea that there is a story of the universe in historical sequence and measurable time was unknown prior to the twentieth century.¹⁸⁷ In earlier periods there was a sense that the human being was passing through certain stages of intellectual development, described by Auguste Comte as the religious, metaphysical and positivist phases.¹⁸⁸ There was also a perception of social evolution toward more acceptable social institutions and community life, articulated by writers such as Charles Fourier¹⁸⁹ and later by Karl Marx.¹⁹⁰ Finally, there was an awareness of the biological development and evolution of species described by Charles Darwin¹⁹¹ and an outline of the sequence of geological formation of the Earth by Charles Lyell.¹⁹² However, none of these important insights gave any indication that the Universe itself was evolving in an identifiable sequence of irreversible transformations.

To conclude, Berry's 'new story' provides a method for shifting Western culture

¹⁸⁵ Berry, above n 154, 132. The subjective presence of things to each other is arguable one of the most distinctive aspects of Berry's thought. Again, he was influenced by the writing of Teilhard who notes in *The Divine Milieu* (1960) 92: 'In the Divine Milieu all the elements of the universe touch each other by that which is most inward and ultimate in them.' Commenting on this point, Berry notes in above n 154, 135: 'The reality and value of the interior subjective numinous aspect of the entire cosmic order is being appreciated as the basic condition in which the story makes any sense at all.'

¹⁸⁶ Berry, above n 135 (1992), 236.

¹⁸⁷ Ibid 236.

¹⁸⁸ Auguste Comte, *Introduction to Positive Philosophy* (1988).

¹⁸⁹ Charles Fourier, Gareth Stedman Jones and Ian Patterson, *Fourier: The Theory of the Four Movements* (1996).

¹⁹⁰ Karl Marx, *Capital: Volume 1: A Critique of Political Economy* (1992).

¹⁹¹ Charles Darwin, *The Origin Of Species: 150th Anniversary Edition* (2003).

¹⁹² Charles Lyell and James Secord, *Principles of Geology* (1998).

away from anthropocentrism and toward the notion of Earth community. While the articulation of a modern story has broad value, its specific application in this thesis is to provide the basis for more a reciprocal and mutually enhancing relationship with nature. Primarily, then, the 'new story' is concerned with restoring meaning and value to the human relationship with Earth. The present anthropocentric assumption understands the natural world as a resource for human consumption. However, if the 'new story' formed the basis of culture, Berry hoped that people would be moved to act according to the values it carried – principally the idea of Earth community. In that sense, it would supply a functional cosmology for a 'viable human existence' within the limitations of the natural world. Speaking to this point, Mary Evelyn-Tucker contends:

The new story provides context and perspective for implementing the specific kinds of social, political and economic changes that will be needed to sustain and foster life on this planet...[t]he assumption is that, when one's worldview shifts to comprehend the interrelatedness of all life, one's ethics likewise will be affected to encourage human justice and environmental sustainability.¹⁹³

IV. CONCLUSION

This chapter presents an alternative paradigm for law based on the concept of Earth community. In direct contrast to the existing anthropocentric paradigm of law, the concept of Earth community holds that human beings are deeply connected and dependant on the Earth. Indeed, it posits the human community as one part of a comprehensive community that includes other life forms and inanimate subjects. Nature does not exist simply to satisfy the needs and preferences of human beings. It has its own distinct history, reality and function in the processes of Earth.

¹⁹³ Berry, above n 163, 154.

The concept of Earth community was supported with reference to three distinct areas of science. At the micro level, quantum physics illustrates that subatomic particles are best explained in terms of interconnectedness. Matter does not have meaning when fragmented and is best understood in context and in terms of relationship. This finding was supported further with reference to the discipline of ecology. The concept of ecosystem holds that living organisms and the abiotic environment are inseparably interrelated. To help articulate this concept, ecologists adopt the language of network and systems theory, which describes nature in terms of relationship and integration. Finally, the integral interconnected functioning of the Earth was supported by the concepts of autopoiesis and Gaia theory. The Earth is said to be autopoietic in the sense that the combined functioning of its living and nonliving components maintains a consistent homeostatic equilibrium.

The chapter then argued that for the principle of Earth community to influence law there must be a mechanism for it to become entrenched in culture. This argument is premised on the understanding that law is a 'magic mirror' that reflects cultural beliefs, values and perceptions. Indeed, just as previous legal concepts (such as the idea of private considered in chapter two) are a product of their time, so to future legal concepts are shaped by the culture from which they emerge. To this end, the chapter considered the 'new story' proposed by Thomas Berry. In taking a narrative approach, Berry recognised the significance of story in cultural transformation and vitality. His 'new story' represents a sweeping historical narrative, beginning with the primordial fireball at the beginning of the universe and continuing on to the present. It is told in the language of science and mathematical cosmology. Further, while the traditional stories of Western culture have put forward an anthropocentric worldview, the new story is

premised on the principle of Earth community.

In constructing a new story, Berry hoped to facilitate a mutually enhancing human-Earth relationship. He hoped that the 'new story' would shift human values and ethics and then inform human social institutions including our law. Indeed, Berry highlighted law as one of the primary institutions most in need of reform in light of the concept of Earth community.¹⁹⁴ The thesis turns now to consider how Western law can respond to this emerging paradigm. Chapter four lays the foundations by sketching an emerging legal philosophy called Earth Jurisprudence. Following this discussion, chapter five considers the application of Earth Jurisprudence to the idea of private property.

¹⁹⁴ Berry, above n 183, 61-62.

CHAPTER FOUR

A THEORY OF EARTH JURISPRUDENCE

Chapter Four
A Theory of Earth Jurisprudence

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I. INTRODUCTION

Although we are integral with the complex of life communities, we have never been willing to recognize this in law, economics, morality, education or in other areas of the human endeavour.¹

Chapter two of this thesis argued that the dominant rights-based concept of private property reflects an anthropocentric paradigm and contributes to environmental harm. Chapter three critiqued anthropocentrism and used contemporary scientific descriptions of nature to support an alternative paradigm for law based on the ecocentric concept of Earth community. This concept describes human beings as deeply interconnected and dependant on nature. Further, it argues that the Earth is a community of subjects and not a collection of objects. Chapter three also investigated how the concept of Earth community could influence law by examining Thomas Berry's 'new story'. The 'new story' describes recent scientific insights in narrative form and seeks to expand human ethics by providing a functional ecocentric cosmology for contemporary society. Drawing on the description of law as a mirror of society,² this chapter argues that future legal concepts will be shaped by the cultural context from which they emerge. With reference to the concept of Earth community, this chapter outlines an emerging theory of law called Earth Jurisprudence. It contends that law should shift from a narrow human focus to reflect the concept of Earth community.³

This chapter begins by examining the philosophical structure of Earth Jurisprudence. From the outset, it recognises that the process of developing and articulating the principles of Earth Jurisprudence is a relatively new endeavour. While many of its fundamental principles are common to environmental philosophy, Earth

¹ Thomas Berry, *The Dream of the Earth* (1982) 21.

² See Kermit Hall, *The Magic Mirror: Law in American History* (2009) 1.

³ See also political ecology, which is informed by ecological concepts such as interconnectedness and holism. For an introduction see Paul Robbins, *Political Ecology: A Critical Introduction* (2004).

Jurisprudence itself is less than a decade old.⁴ To date, only one book has been published that clearly addresses the topic.⁵ Using existing writing and commentary on Earth Jurisprudence as a platform, this chapter offers one interpretation that situates the theory within the broad structure of Natural Law philosophy. It argues that it is possible to discern from Berry's writing an argument for the existence of two kinds of 'law' organised in a hierarchy. At the top of the hierarchy is the Great Law, which represents the concept of Earth community described in chapter three. Beneath the Great Law is Human Law. Human Law is defined Earth Jurisprudence as rules articulated by human authorities, which are consistent with the Great Law and enacted for the comprehensive common good.⁶

The interrelationship between the Great Law and Human Law is also discussed. The health of the Earth community is a prerequisite for human existence. As such, the concept of Earth community should inform the law in much the same way as other principles such as equality and justice. Drawing on Natural Law philosophy, the interpretation of Earth Jurisprudence offered in this thesis contends that Human Law derives its legal quality and authority from the Great Law. In this function, the Great Law acts as a bedrock standard or measure for Human Law. Laws that contravene the Great Law and risk the health and future flourishing of the Earth community are considered defective or a corruption of law. A defective law is not morally binding on a population and citizens have a moral justification for civil disobedience aimed at reforming the law.

⁴ Thomas Berry began to articulate need for a new jurisprudence as early as 1987. See Thomas Berry, 'The Viable Human' (1987) 2 *Re-Vision* 9.

⁵ See Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice* (2003). Other important contributions include Thomas Berry, *The Great Work: Our Way into the Future* (1999) and Thomas Berry, *Evening Thoughts: Reflecting on Earth as Sacred Community* (2006). While not a text on Earth Jurisprudence, see also Klaus Bosselmann, *When Two Worlds Collide: Society and Ecology* (1995).

⁶ As noted in Section III, Part 2 the phrase 'common good' does not equate to the utilitarian concern with the greatest good for the greatest number.

This chapter seeks to make an original contribution to existing literature by articulating a broad outline of Earth Jurisprudence as a legal philosophy. This outline provides the foundation for chapter five, which articulates an alternative ecocentric description of private property.

II. WHAT IS EARTH JURISPRUDENCE?

Earth Jurisprudence is an emerging philosophy of law, proposed by Thomas Berry in 2001.⁷ Its origin can be explained in a number of ways. One account explains it as a response to the present environmental crisis described in chapter one.⁸ It can also be considered a form of critical legal theory. In this regard, advocates of Earth Jurisprudence would subscribe to the early principles of Critical Legal Studies, in particular, its critique of law in legitimising particular social relations and illegitimate hierarchies.⁹ Earth Jurisprudence is also, necessarily, a development from the environmental movement and environmental philosophy more generally.¹⁰ What unites its proponents is a belief that society and the legal order reflect a harmful and outdated anthropocentric worldview. As described in chapter two, Earth Jurisprudence analyses the contribution of law in constructing, maintaining and perpetuating anthropocentrism and looks at ways in which this orientation can be undermined and ultimately eliminated.

As progenitor, Berry is primary amongst advocates for Earth Jurisprudence.

⁷ For a brief history see Cormac Cullinan, 'A History of Wild Law' in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

⁸ See pages 5-7.

⁹ It is acknowledged that advocates of Critical Legal Studies said very little about the environment.

¹⁰ See in particular Aldo Leopold, *A Sand County Almanac* (1949) and Rachel Carson, *Silent Spring* (1962).

Berry was a persistent critic of the anthropocentric paradigm and its prevalence in western law. In his important essay, 'Legal Conditions for Earth Survival', he argues that the present legal system 'is supporting exploitation rather than protecting the natural world from destruction by a relentless industrial economy.'¹¹ Berry also critiques Legal Positivism on the basis that it posits 'abstract' categories or doctrines as the highest authority in human society.¹² He notes: 'humans [have] become self-validating, both as individuals and as a political community' and no longer act with reference to a higher power 'either in heaven or on [E]arth.'¹³ He also critiques contemporary notions of private property as a mechanism that authorises human exploitation of nature¹⁴ and the non-recognition of rights outside of the human community.¹⁵

In 1987 Berry set about describing how human society could shift both its idea of law and its legal system in response to the 'new story' described in chapter three. Most of his remarks are broad, as witnessed in his early paper 'The Viable Human':

The basic orientation of the common law tradition is toward personal rights and toward the natural world as existing for human use. There is no provision for recognition of nonhuman beings as subjects having legal rights...the naïve assumption that the natural world exists solely to be possessed and used by humans for their unlimited advantage cannot be accepted...To achieve a viable human-Earth community, a new legal system must take as its primary task to articulate the conditions for the integral functioning of the Earth process, with special reference to a mutually enhancing human-Earth relationship.¹⁶

The idea of 'mutual-enhancement' is fundamental to Earth Jurisprudence. As argued in chapter three, human beings are deeply connected and dependent on nature. The idea

¹¹ Thomas Berry, 'Legal Conditions for Earth's Survival' in above n 5 (2006), 107.

¹² Thomas Berry, 'Foreword' in Cullinan, above n 5 (2003), 13.

¹³ Ibid.

¹⁴ Berry, above n 5 (1999), 61-62.

¹⁵ Thomas Berry, 'Rights of the Earth' (2002) 214 *Resurgence Magazine* 45. The idea that nature has rights is a key platform of Earth Jurisprudence. For further discussion see Peter Burdon, 'Rights of Nature: Reconsidered' (2010) 49 *Australian Humanities Review* 69 and Peter Burdon, 'Rights of Nature: The Theory' (2011) 1 *IUCN Environmental Law Journal* <http://www.iucnael.org/en/component/docman/doc_download/660-earth-rights-the-theory.html>.

¹⁶ Berry, above n 1, 5-6.

that human good can be achieved at the expense of the larger Earth community is an illusion. Instead, the health and flourishing of the comprehensive Earth community is a prerequisite for human existence. This necessitates a shift from the anthropocentric notion that nature exists for human use and toward the facilitation of 'mutually enhancing' human-Earth interactions.¹⁷ Further, it considers the principle of Earth community as both relevant and necessary to our idea of law.

While not explicit, it is possible to discern from the writings of Berry an argument for the existence of two types of 'law' that are organised in a hierarchical relationship. The first order of law is Great Law, which refers to the principle of Earth community.¹⁸ The second order of law is Human Law, which represents binding prescriptions, articulated by human authorities, which are consistent with the Great Law and enacted for the common good of the comprehensive Earth community. Two matters typify the interrelation between the Great Law and Human Law. First, Human Law derives its legal quality and power to bind in conscience from the Great Law. Because human beings exist as one part of an interconnected and mutually dependant community, only a prescription directed to the comprehensive common good has the quality of law.¹⁹ In decisions concerning the environment or human-Earth interactions, it is appropriate to construct Human Law with reference to the Great Law. For other matters, the legislator has broad freedom and lawmaking authority. Second, any law that transgresses the Great Law can be considered a corruption of law and not morally

¹⁷ Berry, above n 5 (2009), 3.

¹⁸ Note that Berry highlights three principles as being critical to the new story. They are interconnectedness (communion), differentiation and autopoiesis. See Thomas Berry and Brian Swimme, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era* (1992) 71-79. Of these three principles, Berry considers interconnectedness to be primary, see Anne Marie Dalton, *A Theology for the Earth: The Contributions of Thomas Berry and Bernard Lonergan* (1999) 129. For a sketch of how all three of these principles can be applied in law see Judith E Koons, 'Key Principles to Transform Law for the Health of the Planet' in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

¹⁹ This statement is deliberately contrary to contemporary statements on Legal Positivism.

binding on a population.

It will be clear to anyone familiar with legal philosophy that the basic structure and relationship between these different types of law share resemblance to the Thomist and neo-Thomist Natural Law traditions. Lynda Warren comments on this resemblance:

At first sight, the similarities seem obvious. The classical doctrine of Natural Law is based on the existence of a body of law – Natural Law – that is universal and immutable. It has been described as a higher law against which the morality of ‘ordinary’ laws can be judged. This higher law is discoverable by humans through a process of reason.²⁰

Many advocates of Earth Jurisprudence, however, are dismissive of Natural Law philosophy and contend that it’s inherently anthropocentric tenor makes it a poor and potentially confusing point of comparison for explaining an Earth-centred legal philosophy.²¹ In regard to these concerns, it is recognised that one major barrier to those engaged with articulating Earth Jurisprudence and its language. Concepts such as ‘nature’ and ‘Natural Law’ carry the baggage of over two thousand years of largely anthropocentric use and development.²² Further, the construction of Earth Jurisprudence as a branch of Natural Law has the potential to become focused on an unproductive conflict with Legal Positivism.²³

²⁰ Lynda Warren, *Wild Law – the Theory* (2006) 18 *Environmental Law and Management* 11: 13.

²¹ See Cullinan, above n 5, 77. While writing on a different subject, Klaus Bosselmann makes a similar point in above n 5, 236: ‘Structurally the ecocentric orientation of values is a turning towards the ideas of Natural Law. In this context some authors point towards understanding in a natural-law sense. I do not believe that it is necessary to revert in this way, nor that it could be of any help – considering the unproductive rivalry between positivism and Natural Law.’

²² Umberto Eco argues ‘between the mysterious history of a textual production and the uncontrollable drift of its future readings, the text...still represents a comfortable presence, the point to which we can stick’, ‘Between Author and Text’ in Stefan Collini (ed), *Interpretation and Overinterpretation*, (1992) 88.

²³ Note that the differences between contemporary Natural Law theories and Legal Positivism are only slight. See Brian H Bix, ‘On the Dividing Line Between Natural Law Theory and Legal Positivism’ (1999-2000) 75 *Notre Dame Law Review* 1613. HLA, *Essays in Jurisprudence and Philosophy* (1983) at 10 describes Finnis’s natural law theory as being ‘in many respects complementary to rather than a rival of positivist theory.’ Neil MacCormick, ‘Natural Law and the Separation of Law and Morals’ in Robert P George (ed), *Natural Theory: Contemporary Essays* at 105 and 109 describes the convergence of modern legal positivism and Finnis’s natural law theory. In Joseph Raz, ‘The Morality of Obedience’ (1985) 83 *Michigan Law Review* 732:

Still, this thesis maintains that Earth Jurisprudence can correctly be described as a theory of Natural Law.²⁴ It acknowledges the limitations of language, however does not view this as fatal. Following the reasoning of feminist theologian Carol Christ it argues that we should not simply abandon a negative word or concept. Rather, we should attempt to find new meaning in the term or else the 'the mind will revert back to familiar structures at times of crisis, bafflement or defeat.'²⁵ Thus, while Natural Law reasoning has traditionally been interpreted in an anthropocentric fashion, this thesis will employ its broad framework for ecocentric goals. Further, as explained in more detail below, the description of Earth Jurisprudence offered in this thesis is arguably more defensible than traditional Thomist and neo-Thomist Natural Law philosophy. The broad relationship between Earth Jurisprudence, Natural Law and Legal Positivism is articulated in table one below. The table is structured with reference to the key arguments of Earth Jurisprudence presented in this chapter.

739 claims that 'it is a mistake to think that the legal positivist and the natural law traditions are inherently incompatible.'

²⁴ Warren, above n 20, 13. See also Andrew Kimbrell, 'Recovery of Natural Law as a Paradigm for a New Jurisprudence' (2008) <http://Earthjuris.org/events_/02-08symposium/02-08symposium.htm> at 23 March 2009; Andrew Kimbrell, 'Nature's Law: Reinventing Environmental Jurisprudence' (2007) <<http://web.mac.com/gaiafoundationuk/iWeb/Gaia%20Foundation%20Podcasts/Podcast/BB06DC16-5E81-4D36-B0B9-70D368AD4C78.html>> and Andrew Kimbrell, 'Natural Law' (2007) <<http://web.mac.com/gaiafoundationuk/iWeb/Gaia%20Foundation%20Podcasts/Podcast/AE1D721E-CB8A-414B-8307-A3B907C25B3E.html>>.

²⁵ Carol Christ, 'Why Women Need the Goddess' in Carol Christ & Judith Plaskow, *Women Rising: A Feminist Reader in Religion* (1979) 275.

Table One: Earth Jurisprudence, Natural Law and Legal Positivism

Issue	Earth Jurisprudence	Natural Law	Legal Positivism
There is a 'higher law' to human law.	<p>The Great Law is a higher law. It is interpreted by human beings through reason based on scientific understanding.</p> <p>The Great Law is not a purely objective truth. Science provides approximate descriptions that are interpreted and applied by human lawmakers.</p>	<p>The Natural Law is a higher law. It is interpreted by human beings through reason based on self-reflection and conscience.</p> <p>The Natural Law is considered objective and universal.</p>	Human law is the only thing termed law.
Human Law	<p>The <i>prima facie</i> authority of human law is contingent on consistency with the Great Law.</p> <p>Human Law is purposive and directed toward the comprehensive common good of the Earth community</p> <p>Earth jurisprudence focuses on human-earth interactions. It may not be relevant to every law that is passed by a legislature. It provides lawmakers freedom in this regard.</p>	<p>The <i>prima facie</i> authority of human law is contingent on consistency with the Natural Law.</p> <p>Human Law is purposive and directed toward the common good of human beings.</p> <p>Natural Law advocates a necessary connection between law and morality. It considers itself relevant to all moral or ethical issues in law.</p>	<p>Law is whatever is contained in legislation enacted by lawmakers. Lawmakers have <i>prima facie</i> authority.²⁶</p> <p>All laws are binding, though a person may choose not to follow it as a matter of conscience and suffer the legal consequences.</p>
Legal Quality and Authority	Where relevant, Human Law receives its legal quality from the Great law.	Human Law receives its legal quality from the Natural Law.	Human law is self-validating with reference to a basic norm or union of

²⁶ Exclusive legal positivist Joseph Raz maintains that law does not have *prima facie* authority. See Joseph Raz, *The Authority of Law* (1979).

²⁷ This is consistent with the modern interpretation of Natural Law. See John Finnis, *Natural Law and Natural Rights* (1980) 290.

	A purported law that does not attain legal quality is not morally binding.	A purported law that does not attain legal quality is not morally binding. ²⁷	primary and secondary rules. ²⁸
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The relationship between these three descriptions of law is explained further below. Section III begins by outlining the legal categories advanced in Earth Jurisprudence. As noted in table one, Earth Jurisprudence advocates for a ‘higher law’ or Great Law that serves as a standard for Human Law. Further, it defines Human Law as purposive and directed toward the common good of the comprehensive Earth community. These points represent structural and operative correlations between Earth Jurisprudence and Natural Law philosophy. Section III explores these correlations further and argues that Berry’s writing on law was deeply influenced by the Natural Law writing of Thomas Aquinas. For this reason, it explores the legal categories proposed in Earth Jurisprudence alongside the analogous legal categories proposed by Aquinas. This section contends that a comparative approach provides deep insight into Earth Jurisprudence and the writing of Berry.

III. THE LEGAL CATEGORIES OF EARTH JURISPRUDENCE

In 1934 William Nathan Berry entered a Catholic monastery of the Passionist order. Upon being ordained as a priest in 1942 he chose the name Thomas in honour of Catholic Priest in the Dominican Order Thomas Aquinas. Berry acknowledges that Aquinas exerted a considerable influence over aspects of his theological and

²⁸ Regarding reference to a basic norm see Hans Kelsen, *Pure Theory of Law* (1967). For union or primary and secondary rules see HLA Hart, *The Concept of Law* (1994).

philosophical writing. He states:

From Thomas I learned that the universe entire is the primary purpose of both creation and redemption, the more comprehensive purpose is the entire ordering of things. Such indeed is what he says in His *Summa Contra Gentiles* where he tells us that “The order of the universe is the ultimate and noblest perfection of things” (SCG,II,46). Also in the *Summa Theologica*, he says, “the whole universe together participates in and manifests the divine more than any single being whatsoever” (ST,1,47,1).²⁹

While not explicitly acknowledged, this influence is also evident from a careful reading of Berry’s writing on law – in particular Berry’s regard for ‘higher laws’. The natural law tradition represents the most significant jurisprudential legacy left by Aquinas and has inspired generations of neo-Thomist theorists.³⁰ Aquinas’s treatment of law is found in the second part of his *Summa Theologica* beginning with question 90 and continuing through to question 108. The often-named ‘Treatise on Law’ has enjoyed an autonomous life outside of the comprehensive *Summa*. However, as John Finnis suggests, ‘an adequate understanding of it must depend on what has preceded it and what follows it.’³¹ Thus, although this section focuses on questions 90-108, where necessary, it also draws from the comprehensive work.

For Aquinas, the term ‘law’ is analogous and does not have consistent meaning with each use.³² His legal theory encompasses four types of law, organised in a hierarchy. At the apex is Eternal Law, which comprises of God-given rules or divine

²⁹ Thomas Berry, ‘Foreword’ in Dalton, above n 18, vii. See also Matthew Fox, ‘Matthew Fox Tribute to Thomas Berry’ (2002) <<http://www.Earth-community.org/images/FoxTribute.pdf>>. See also Matthew Fox, ‘Some Thoughts on Thomas Berry’s Contributions to the Western Spiritual Tradition’ in Ervin Laszlo and Allan Combs (eds), *Thomas Berry Dreamer of the Earth: The Spiritual Ecology of the Father of Environmentalism* (2011) 16.

³⁰ For a history see Brian H Bix, ‘The Natural Law Tradition’ in Joel Fienberg and Jules Coleman (eds), *Philosophy of Law* (2004) 9.

³¹ Finnis, above n 27, 301.

³² Ralph McInerny, ‘Foreword’ in Thomas Aquinas, *Treatise on Law: Summa Theologica, Questions 90-97* (1956) vi. McInerny notes further that law is a term ‘with an ordered set of meanings, one of which is regulative of the others.’

providence, which govern all of nature.³³ The second order is Natural Law, which is that portion of Eternal Law that one can discover through a special process of reasoning, involving intuition and deduction, outlined by Greek authors.³⁴ Divine Law refers to the law of God as revealed in scripture.³⁵ Human Law sits at the bottom of this ordering and consists of rules, supported by reason and articulated by lawmakers for the common good of human society. Speaking to this ordering, McNerny comments that '[t]o speak of God's governance of the universe as a 'law' and of the guidelines we can discern in our nature as to what we ought to do as 'laws' can puzzle us because what the term 'law' principally means is a directive of our acts issued by someone in authority.'³⁶ Nonetheless, it is clear from Aquinas' discussion in question 90 on the 'essence of law'³⁷ that human positive law is at the forefront of his mind when using the term 'law'.³⁸ Indeed, in question 90, article 4, Aquinas defines law as 'nothing else than an ordinance of reason for the common good, made by him who has care of the community, and promulgated.'³⁹

The basic relationship between Aquinas's hierarchy and that proposed by Earth Jurisprudence is outlined in table two below:

Table Two: Natural Law and Earth Jurisprudence

Natural Law	Earth Jurisprudence
Eternal Law (providence)	N/A
Natural Law	The Great Law
Divine Law	N/A
Human Law	Human Law

³³ McNerny, above n 32, ix.

³⁴ JW Harris, *Legal Philosophies* (2004) 8.

³⁵ Ibid.

³⁶ McNerny, above n 32, vi.

³⁷ Note that the title 'essence of law' was not used by Aquinas and was provided by later editors, Ibid viii.

³⁸ Ralph McNerny, *Thomas Aquinas: Selected Writings* (1998) 611.

³⁹ Aquinas, above n 32, 10-11.

This table illustrates in a very basic way the structural relationship between Earth Jurisprudence and Aquinas's theory of Natural Law. Both adopt a higher view of law⁴⁰ and describe the consequences of contradicting their unique focus. The categories of Eternal Law and Divine Law are absent from this discussion. Aquinas describes Divine Law as revelation revealed in Christian scripture.⁴¹ As such, it has no corresponding category in a secular description of Earth Jurisprudence. For Aquinas, Eternal Law represents the source and foundation for the other types of law. Aquinas describes eternal law in question 93, article 4, as 'the very Idea of the government of things in God the Ruler of the Universe.'⁴² Put otherwise, it is the divine system of government,⁴³ providence,⁴⁴ the divine plan and the timeless universal order, which act as the measure for all other laws.⁴⁵ As a Catholic priest, one might reasonably ask whether Berry would have included reference to Eternal Law in a more detailed study of Earth Jurisprudence.⁴⁶ Answering this question, however, is beyond the scope of the thesis.

We turn now to consider the first category of law proposed in Earth Jurisprudence, termed the Great law. This category is explored by comparison with the corresponding legal category of Natural Law advanced by Aquinas. This comparative approach provides greater insight into and understanding of the nature of the Great

⁴⁰ Harris, above n 34, 145.

⁴¹ Aquinas, above n 32, 29.

⁴² Ibid 46.

⁴³ Ibid.

⁴⁴ Aquinas makes several references to divine providence in *Summa Theologica*. Most importantly, in question 104, article 4 he notes: 'God in his providence directs all things in the world to their ultimate good, that is, to himself.'

⁴⁵ McInerny, above n 38, 611.

⁴⁶ Evidence for this possibility can be noted in Berry's argument for recognising and acting in accord with the Universal Logos which he regarded as 'the ultimate form of human wisdom', Berry, above n 1, 20. The term Logos can be traced back to ancient Greece and the philosophy of Heraclitus (535-475 B.C). Heraclitus introduced the term *Logos* to describe a similar immanent conception of divine intelligence and the rational principles governing the universe, Raghuvver Singh, 'Herakleitos and the Law of Nature' 24 (1963) *Journal of the History of Ideas* 457. Logos is relevant to the present discussion, because as Lloyd Weinreb notes in *Natural Law and Justice* (1987) 56: 'Eternal Law is little more than a Christianised version of Logos and the Platonic vision of a universe ordered with a view to the excellence and preservation of the whole.'

Law. It also provides an opportunity to state explicitly the differences between the two categories of law and how Earth Jurisprudence answers some of the pertinent criticisms levelled against Natural Law philosophy. This section also considers those aspects of the Great Law that are compatible with Legal Positivism.

1. *Natural Law and the Great Law*

A. Aquinas and Natural Law

Natural Law is at the heart of Aquinas' writing on law. His first description is found in question 91. He notes that Natural Law represents that aspect of the Eternal Law that is knowable by finite human minds and applicable to human beings.⁴⁷ Appropriately, Germain Grisez describes Natural Law as 'an intellect size bite of reality.'⁴⁸ Because of our capacity for self-government, human beings are considered a measured measure.⁴⁹ Our nature provides clues as to how we should behave in order to achieve fulfilment. Put another way, Aquinas argues that human beings have a 'natural inclination'⁵⁰ or *telos* and reason accordingly to act willingly toward it.⁵¹ When these ends are discerned by reason they take on precepts and thus are analogous to law in the primary sense of the term.⁵² This argument depends on an ontological premise, made earlier by Plato that

⁴⁷ David Novak, 'Natural Law in a Theological Context' in John Goyette, Mark Latkovic and Richard S Myers, *St Thomas Aquinas and the Natural Law Tradition: Contemporary Perspectives* (2004) 44. Note that Aquinas defines Natural Law as the 'participation of the Eternal Law in rational creatures', question 91 article 2. John Finnis comments on the term 'participation' noting: 'For Aquinas, the word *participatio* focally signifies two conjoined concepts, causality and similarity (or imitation). A quality that an entity or state of affairs has or includes is participated, in Aquinas's sense, if that quality is caused by a similar quality which some other entity or state of affairs has or includes in a more intrinsic or less dependent way', Finnis, above n 27, 399.

⁴⁸ Germain Grisez, 'The First Principle of Practical Reason: A commentary on the *Summa Theologica*, 1-2, Question 94, Article 2' (1965) 10 *Natural Law Forum* 174.

⁴⁹ Aquinas, above n 32, xii. Human beings are subject to the Natural Law and able to discern it.

⁵⁰ *Ibid* 15.

⁵¹ Weinreb, above n 21, 57.

⁵² McInerny in Aquinas, above n 32, xii.

everything in nature has an essence and a tendency to fulfil it.⁵³ Aquinas argued that reason constitutes the essence of human beings. We fulfil our natural inclination by using reason consciously to direct our action toward particular ends.⁵⁴ Weinreb comments 'it would make no sense and would contradict the perfect order of the created universe for human beings to have the capacity to reason and to lack the opportunity to exercise the capacity practically.'⁵⁵ Thus, our moral freedom is not in conflict with the Eternal Law, but fulfils it in a manner consistent with our rational nature.

In question 91 Aquinas describes this process as a specifically human participation in the Eternal Law. In question 94, article 2, he maintains that Natural Law consists of 'first principles to matters of demonstration.'⁵⁶ These are starting points and first principles of practical reasoning. Aquinas notes that a principle is self-evident in two ways.⁵⁷ First, a proposition is self-evident in-itself if its 'predicate is contained in the notion of the subject.'⁵⁸ For example, the 'proposition, *Man is a rational being*, is, in its very nature, self evident, since who says *man*, says *a rational being*.'⁵⁹ For Aquinas, it was unthinkable that such a proposition be considered false.⁶⁰ However, 'some propositions are self-evident only to the wise'⁶¹ who have received instruction of the meaning of terms inherent to a proposition.⁶² Thus, Aquinas remarks, 'to one who understands that an angel is not a body, it is self-evident that an angel is not circumscriptively in a

⁵³ This view has been subjected to persuasive critique. See in particular Ludwig Wittgenstein, *Philosophical Investigations* (2009) [first published 1953] 89.

⁵⁴ Aquinas, above n 32, 16.

⁵⁵ Weinreb, above n 21, 57.

⁵⁶ Aquinas, above n 32, 58.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ This proposition contains a certain irony in the context of the present environmental crisis. As David Suzuki has argued, while the human brain and capacity for rational thinking helped position us as the dominant animal on Earth, we are acting contrary to rationality by destroying our own life support system. David Suzuki, *The Legacy: An Elder's Vision for our Sustainable Future* (2010) 5-12.

⁶¹ Ibid 59.

⁶² Ibid.

place.’⁶³

Aquinas’s conception of Natural Law focuses on human reason. As Harris states, ‘herein lies the ‘natural’ quality of Natural Law.’⁶⁴ A proposition is natural if one can derive it through reason, intuition and deductions drawn therefrom. Aquinas states repeatedly that first principles of Natural Law are known to human beings directly and immediately. Indeed, he argues that God has ‘instilled it into man’s mind so as to be known by him naturally.’⁶⁵ Aquinas establishes a means of discovering the first principles of practical reason, rather than an exhaustive list.⁶⁶ While his methodology is beyond the scope of this chapter, some examples include that ‘good is to be done and pursued and evil is to be avoided’ and that ‘since...good has the nature of an end, and evil, the nature of a contrary, hence it is that all those things to which man has a natural inclination, are naturally apprehended by reason as being good, and consequently as objects of pursuit, and their contraries as evil, and objects of avoidance.’⁶⁷ Aquinas also holds that there are natural inclinations common to all animals, relating to sexual intercourse⁶⁸ and education of offspring.⁶⁹ The fulfilment of these inclinations belongs to the Natural Law.

We turn now to consider the influence of Natural Law philosophy on the Great Law. This section also considers points of distinction between the two theories and argues that the Great Law is more defensible than Aquinas’s description of Natural Law.

⁶³ Suzuki, above n 60, 59.

⁶⁴ Harris, above n 34, 7.

⁶⁵ Aquinas, above n 32, 11.

⁶⁶ Ibid. In contrast Finnis claims that his seven forms of human good represent an exhaustive list. See Finnis, above n 27, 90-91.

⁶⁷ Aquinas, above n 32, 60.

⁶⁸ James Rachels, *The Elements of Moral Philosophy* (1998) 55-56.

⁶⁹ Weinreb, above n 21, 58. See also The Vatican, ‘Declaration on Euthanasia’ in Peter Singer (ed), *Ethics* (1994) 253-256.

B. *The Great Law*

The Great Law and Natural Law differ on the meaning to be attributed to the term 'nature'. For Aquinas, 'nature' means 'reason' and not the physical environment or principles deduced from its study. Certainly, the absence of matters pertaining to the physical environment in Natural Law philosophy is striking, causing Jane Holder to reiterate (albeit in a different context) Lloyd Weinreb's denunciation of 'Natural Law without nature.'⁷⁰ Indeed, while natural law theorists have considered the effect of biological and physical laws on the realisation of human happiness⁷¹ and a Natural Law conception of ownership has been attempted⁷² this does not amount to a 'developed treatment of the physical environment and human/nature relations' in Natural Law literature.⁷³

In contrast to the legal category of Natural Law, the Great Law is concerned with the physical environment and in particular the concept of Earth community. Berry argues that human society should broaden its present focus from human beings to recognise the 'supremacy of the already existing Earth governance of the planet' as a single, interconnected community.⁷⁴ For Berry, this orientation toward the natural world 'should be understood in relation to all human activities'⁷⁵ and that 'Earth is our primary teacher as well as the primary lawgiver.'⁷⁶ Former president of the Czech

⁷⁰ Jane Holder, 'New Age: Rediscovering Natural Law' in MDA Freeman (ed), *Current Legal Problems* (2000) 172.

⁷¹ Finnis, above n 27, 380.

⁷² J Boyle, 'Natural Law, Ownership and the World's Natural Resources' (1989) 23 *Journal of Value Inquiry* 191. Boyle concludes at 191: 'the category of natural resources might not be particularly useful framework for moral analysis. Certainly this category does not, on Natural Law grounds, mark out an area where any special moral considerations apply.' See also Murray Raff who investigates the Natural Law roots of private property, Murray Raff, *Private Property and Environmental Responsibility* (2003) 121-159. Raff puts forward a compelling argument that registered title is the globalising land title system and ought to be re-attached it to its jurisprudential routes, which involve religion and Natural Law.

⁷³ Holder, above n 70, 172.

⁷⁴ Berry, above n 5 (2006), 20.

⁷⁵ Berry, above n 5 (1999), 64.

⁷⁶ Ibid 64. See also Thomas Berry, *The Sacred Universe* (2009) 96: 'We are beginning to understand that there

Republic, Václav Havel echoed a similar sentiment in a 1984 address to the University of Toulouse:

We must draw our standards from the natural world. We must honor with the humility of the wise the bounds of that natural world and the mystery which lies beyond them, admitting that there is some thing in the order of being which evidently exceeds all our competence.⁷⁷

In his book *Wild Law*, Cormac Cullinan adopts the term the Great Jurisprudence (the Great Law in this thesis⁷⁸) to help make sense of the re-characterisation envisioned by Berry.⁷⁹ Cullinan defines this term as ‘laws or principles that govern how the universe functions’ and notes that they are ‘timeless and unified in the sense that they all have the same source.’⁸⁰ As described by Cullinan, this law is manifest in the universe itself and can be witnessed in the ‘phenomenon of gravity’, ‘the alignment of the planets’, the ‘growth of planets’ and the ‘cycles of night and day.’⁸¹ Consistent with Natural Law philosophy human beings are limited in the extent that they can understand the Great Law. Indeed, the Great Law represents those aspects of nature that scientific analysis is able to interpret and provide approximate description. What distinguishes human beings from the rest of nature is not greater participation in the Eternal Law, but the capacity to describe approximately the Great Law and alter our behaviour to consciously

already exists a governance of the Earth...this primordial governance remains the context into which we must insert our human governance. Our human governance needs to function within the context of Earth’s governance.’

⁷⁷ Václav Havel, quoted in Janine M Benyus, *Biomimicry: Innovation Inspired by Nature* (2002) 1. See also David Orr, ‘Love It or Lose It: The Coming Biophilia Revolution’ in Edward O Wilson (ed), *The Biophilia Hypothesis* (1993).

⁷⁸ Because of confusion resulting from the use of the term ‘jurisprudence’ in this concept, the term ‘Great Law’ will be preferenced in this chapter.

⁷⁹ Cullinan, above n 5, 84. It has been brought to the authors attention via private correspondence that the term Great Jurisprudence was used for the first time by Thomas Berry at a meeting at Airlie House in Washington, 200. The gathering included Jules Cashford, John Grim, Ed Posey, Liz Hosken, Andrew Kimbrell and Cormac Cullinan.

⁸⁰ Ibid.

⁸¹ Ibid.

act in accordance with or indeed contrary to it.⁸²

Before continuing, it is important to pause and consider in more detail Cullinan's description of the Great Law as representing the laws of nature. In particular, we need to discern what is a law of nature and in what sense they have meaning or relevance for human law. In response to the first question, it must first be noted that laws of nature play a central role in scientific thinking. Martin Curd notes that 'some philosophers of science think that using laws to explain things is an essential part of what it means to be genuinely scientific' and 'support for the view that scientific explanation must involve laws is widespread (though not unanimous).'⁸³ Many also believe they are justified in trusting or relying on scientific inferences, because these predictions are based on established laws. In this view, our expectations regarding the behaviour of systems, materials and instruments are considered reasonable, to the extent that they are drawn from a correct understanding of the rules that govern them. Much energy is devoted to the discovery of laws and 'one of the most cherished forms of scientific immortality is to join the ranks of Boyle, Newton and Maxwell by having a law (equation of functional relation) linked to one's name.'⁸⁴

However, despite the status of laws in science, there is no general agreement on how to define a law of nature. This presents a significant challenge to Cullinan's description of the Great Law. Indeed, how can human lawmakers consider the laws of nature when creating certain types of human law, if there is no consensus on what a law of nature is? In response to this problem two mutually opposed philosophical accounts

⁸² See also Brian Swimme, *The Universe is a Green Dragon* (2001) 32.

⁸³ Martin Curd, 'The Laws of Nature' in Martin Curd and JA Cover, *Philosophy of Science, The Central Issues* (1998) 805. See also David Armstrong, *What is a Law of Nature?* (1983).

⁸⁴ Curd, above n 83, 805.

have been developed.⁸⁵ The first, termed necessitarian, contends that there are real necessities in nature, over and above the regularities that they allegedly produce and law-statements are descriptions of these necessities.⁸⁶ The second account, regularists, posit that there are no necessities but only regularities – that is correlations and patterns – and laws are descriptions of regularities.⁸⁷ Both philosophical accounts address four interrelated issues: (i) semantics of the meaning of law statements; (ii) metaphysical questions concerning the ‘fact’, which law statements refer; (iii) epistemological questions pertaining to the basis to which claims of knowledge of a law are justified; and (iv) explanations of the various role of scientific laws.⁸⁸ In answering these questions, both philosophical accounts encounter distinct difficulties. CA Hooker provides a pertinent example:

[I]f there are necessities in nature, as the first account claims, how exactly do we identify them: how can we tell which of the inductively confirmed regularities are laws? On the other hand, if there are only regularities, as the second account claims, does this mean that our intuitions and scientific practices are awry and that there really is no distinction between laws and accidental generalizations?⁸⁹

Compounding this comment is the wide variety of laws supplied by current science and the complexity of the relationship between those laws, regularities and causes.⁹⁰ Beyond this is a nagging uncertainty about the relevance of such laws to human law. How, for instance, can Newton’s law of motion or Boyle’s law of mass and pressure meaningfully

⁸⁵ An older approach to understanding laws of nature – instrumentalism – has fallen into disfavour. See Ronald Fiere, ‘The Sceptical Perspective: Science Without Laws of Nature’ in Friedel Weinert (ed), *Laws of Nature: Essays on the Philosophical, Scientific and Historical Dimensions* (1995) 120.

⁸⁶ Curd, above n 83, 805.

⁸⁷ Ibid. This is a general statement on each school, there are significantly different variants of each account and also positions that altogether deny the existence of general laws, or deny that science should aim to describe them.

⁸⁸ CA Hooker, ‘Laws, Natural’ in Edward Craig (ed), *The Shorter Routledge Encyclopedia of Philosophy* (2005) 550.

⁸⁹ Ibid.

⁹⁰ Ibid.

assist in the drafting of law? Of what possible importance are they to an institution that seeks to govern human relationships and behaviour? Through what mechanism are certain laws prioritised over others? In response, this chapter argues that even if agreement can be reached on what constitutes a law of nature, it is difficult to see how this focus can assist human lawmakers.⁹¹

Rather than describing the Great Law as a universal law of nature, this chapter argues that the focus of Earth Jurisprudence should be on the principle of Earth community defined in the introduction⁹² and supported with scientific evidence in chapter three.⁹³ This approach to Earth Jurisprudence retains a strong connection between law and science and focuses our attention on a verifiable principle that is directly relevant to human-Earth relationships. Other proponents of Earth Jurisprudence have advocated this more focused interpretation of the Great Law. Andrew Kimbrell for example advocates that lawmakers 'bolster the teleological tenets of Natural Law with the profound insights offered by modern ecology, effectively marrying Natural Law with the law of nature.'⁹⁴ This method does not purported to be objective, value free or able to render consistent application across jurisdictions.⁹⁵ Instead, the role of science in Earth Jurisprudence is to provide approximate descriptions of scientific principles in such a way that can be interpreted and applied by human lawmakers. While fragmented from other areas of positive law, this process is already occurring in environmental

⁹¹ Ecology has been criticised on the basis that it presents no laws and is thus a lesser science than physics. For a contrary argument see Mark Colyvan, 'Laws of Nature and Laws of Ecology' (2003) 101(3) *Oikos* 649.

⁹² See page 18.

⁹³ See pages 94-112.

⁹⁴ Andrew Kimbrell, 'Halting the Global Meltdown: Can Environmental Law Play a Role?' (2008) 20 *Environmental Law and Management* 64: 66.

⁹⁵ This is consistent with the critique of science presented on page 92-93.

law.⁹⁶

Certainly, scientific principles such as the concept of Earth community are much better suited to shaping human law than non-verifiable appeals to human reason as promoted in Natural Law. Further, while science is a product of western culture and shaped by social ideas, it is also widely employed around the world as a tool to assist decision making.⁹⁷ While one should guard against charges of cultural imperialism⁹⁸ and the reduction of other ways of understanding the world,⁹⁹ the Great Law has greater scope for broad application than the religious moral precepts advocated by Natural Law.¹⁰⁰

Another point of distinction between the Great Law and Natural Law is that the former does not describe normative or ethical principles – it describes statements of fact. The term ‘law’ is attributed to this legal category in an analogous sense. In Earth Jurisprudence, Human Law is the primary category meant by the term law. However, the Great Law is considered higher than Human Law and a means by which to determine its legal quality. As noted above, this asymmetry also shows up in the multiple use of the term ‘law’ by Aquinas. Ralph McInerny explains:

[T]here is an asymmetrical relation between *the order of the meanings* of the common term and *the order among the things* named by the term. The first we might call the logical order, the genetic order of naming; the second we can call the ontological order or real order.¹⁰¹

⁹⁶ See for example Fred P Bosselmann and AD Tarlock, ‘The Influence of Ecological Science on American Law: An Introduction’ (1993-1994) 69 *Chicago Kent Law Review* 847. See also Richard O Brooks, Ross Jones and Ross A Virginia, *Law and Ecology: The Rise of the Ecosystem Regime* (2002).

⁹⁷ See James McClellan and Harold Dorn, *Science and Technology in World History: An Introduction* (2006).

⁹⁸ For a critique of cultural imperialism and rationalism see John Tomlinson, *Cultural Imperialism: A Critical Introduction* (2008).

⁹⁹ Such as Aboriginal traditions or phenomenology.

¹⁰⁰ On the relationship between Christianity and natural law see Aquinas, above n 32, 60. See also the seven basic forms of human good promoted by Finnis, above n 27, 85-89. The seven exhaustive universal goods proposed by Finnis include: life, knowledge, play, aesthetic experience, sociability (friendship), practical reasonableness and religion. Each of these goods moves beyond universal biological necessities such as air, water and food and their cultural basis has been extensively criticised. See further Russell Hittinger, *A Critique of the New Natural Law Theory* (1989).

¹⁰¹ McInerny, above n 32, x-xi.

Applying McNerny's reasoning, the term Great Law may be the last thing one means by the term 'law' however, ontologically or really it is the first among the things named by the term.

Importantly, Earth Jurisprudence requires lawmakers to recognise this order and take conscious steps to align Human Law with the Great Law. Recognition of human agency and choice is critical and enables Earth Jurisprudence to avoid the traps of David Hume's well-rehearsed argument of noncognitivism.¹⁰² Briefly, Hume argued that one cannot derive an 'ought' from an 'is' and no amount of information about the facts of the world or of human nature provides proof that anything ought to be done or not done.¹⁰³

He writes:

In every system of morality, which I have hitherto met with, I have always remark'd, that the author proceeds from some time in the ordinary way of reasoning, and established the being of a God, or makes observations concerning human affairs; when of a sudden I am surpriz'd to find, that instead of the usual copulations of propositions, *is*, and *is not*, I meet with no proposition that is not connected with an ought, or an ought not. This change is imperceptible, but is, however, of the lat consequence. For as this *ought* or *ought not*, express some new relation or affirmation, 'tis necessary that it shou'd be observ'd and explain'd; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it.¹⁰⁴

In this passage, Hume is making a logical point – an assertion about the relationship between propositions. His intention is to deprive Natural Law philosophers of that 'most revered philosophical weapon'¹⁰⁵ the deductive syllogism.¹⁰⁶ Indeed, since Hume, few would defend the following syllogism: (i) All of nature is interconnected; (ii) humans are part of nature; (iii) therefore humans *ought* to behave in a manner that recognises this interconnection. Here the conclusion contains a copula not contained in

¹⁰² David Hume, *A Treatise of Human Nature* (2002) [first published 1740] 302.

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*

¹⁰⁵ Harris, above n 34, 13.

¹⁰⁶ A syllogism is a logical argument comprising of three parts (i) a major premise; (ii) a minor premise; and (iii) a conclusion.

the premises, namely, 'ought'. While there might be hundreds of reasons for recognising and responding to this interconnection, logical deduction is not one of them.¹⁰⁷ To avoid the pitfalls of this argument, Earth jurisprudence seeks to take the first steps toward normative conclusions and rely on human will and rationality to bridge what GE More termed the 'naturalistic fallacy'.¹⁰⁸

The next section turns to Human Law. Drawing on the writing of Aquinas and secular natural law theorist Lon Fuller, it describes Human Law as purposive and directed toward the common good of the entire Earth community. It also contends that Earth Jurisprudence has specific application to laws that directly concern the environment or relate to human-Earth interaction.

2. Human Law

In question 90, article 4, Aquinas defines Human Law as 'an ordinance of reason for the common good, made by him who has care of the community, and promulgated.'¹⁰⁹ The description of Human Law advanced in Earth Jurisprudence shares many of these elements. However, three points of refinement need to be established from the outset: (i) in Earth Jurisprudence, the 'common good' is understood with reference to the wellbeing of the Earth community and not simply its human component; (ii) in Earth

¹⁰⁷ See Peter Singer, *The Expanding Circle: Ethics and Sociobiology* (1981) 79. Singer contends: 'The fact that the bull is charging does not, by itself entail the recommendation: 'Run!' It is only against the background of my presumed desire to live that the recommendation follows. If I intend to commit suicide in a manner that my insurance company will think is an accident, no such recommendation applies.' For a partial critique see Pamela Lyon, 'Extracting Norms From Nature: A Biogenic Approach to Ethics' in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

¹⁰⁸ George Edward Moore, *Principia Ethics* (1903). See also Robin Attfield, *Environmental Philosophy: Principles and Prospects* (1994) 127-134. Attfield notes at 128 that the fact/value gap in considering ecological principles might also be bridged by an implicit position such as 'you ought to preserve the integrity of the ecosystem'. For further analysis on overcoming this argument see Harris, above n 34, 12-13.

¹⁰⁹ Aquinas, above n 32, 10-11.

Jurisprudence the 'common good' is not defined in utilitarian terms as pertaining to the greatest good for the greatest number.¹¹⁰ Instead, it refers to the securing of conditions that tend to favour the health and future flourishing of the Earth community.¹¹¹ While this view encourages human flourishing, it also limits liberty to actions that are consistent with the flourishing of the Earth community. In this sense, Earth Jurisprudence is intimately concerned with ecological integrity and the flourishing of the environment;¹¹² and (iii) Aquinas' appeal to reason is supplemented by the use of scientific description. As articulated in Earth Jurisprudence, acknowledging these standards in one's deliberations is part of what it means to be reasonable.

Drawing on these points, this thesis defines Human Law as *rules, supported by the Great Law, which are articulated by human authorities for the common good of the comprehensive whole*. Importantly, this definition shares similarities with Legal Positivism. This is perhaps not surprising; especially when one considers that Aquinas is also considered an important contributor to positivist thought.¹¹³ Key areas of relationship include the presumptive authority of human beings to make binding prescriptions for the community. Further, Earth Jurisprudence does not contest the

¹¹⁰ This is true also for neo-Thomist interpretations of Natural Law. See for example Finnis, above n 27, 154 Finnis defines the common good in terms of conditions that 'tend to favour the realization, by each individual in the community, of his or her personal development.'

¹¹¹ Berry, above n 5 (2006), 149. On this point, Berry notes that 'every component of the Earth community, both living and nonliving' has the right to 'habitat or a place to be and the right to fulfil its role in the ever-renewing processes of the Earth community.' See also Arne Naess, 'The Shallow and the Deep, Long Range Ecology Movement: A Summary' 16 *Inquiry* 95. At 96 Naess notes that each part of nature has the capacity for 'happiness', 'flourishing' and 'self-realization'. For a critique of holism see Don Marietta, *People And The Planet: Holism and Humanism in Environmental Ethics* (1994). For an analysis of how the concept of Earth community can inform utilitarian philosophy see Judith E Koons, 'Earth Jurisprudence: The Moral Value of Nature' (2008) 25 *Pace Environmental Law Review* 263.

¹¹² On ecological integrity see Laura Westra, *Ecological Integrity* (2005) <<http://www.globalecointegrity.net/pdf/Westra%20on%20Ecological%20Integrity.pdf>>. See also James Karr, 'Health, Integrity and Biological Assessment: The Importance of While Things' in David Pimentel, Laura Westra and Reed Noss, *Ecological Integrity: Integrating Environment, Conservation and Health* (2000). For analysis on how to measure ecological integrity see James Karr, 'Protecting Ecological Integrity: An Urgent Societal Goal' (1993) 18(1) *Yale Journal of International Law* 297

¹¹³ See John Finnis, 'The Truth in Legal Positivism' in Robert P George (ed), *The Autonomy of Law: Essays in Legal Positivism* (1996) 195.

benefit of positive law in achieving social/common goods that require the deployment of state power or the co-ordination of public behaviour. The dividing line between Earth Jurisprudence and Legal Positivism rests on several fine distinctions, which nonetheless carry theoretical significance.

The most obvious difference between Earth Jurisprudence and Legal Positivism is the appeal to 'higher law' considered above. Further to this point, this chapter argues that Human Law ought to be described as a project with a purpose. This is consistent with the description of law offered by Aquinas and secular Natural Law theorist Lon Fuller.¹¹⁴ Aquinas for example comments in question 90, article 2:

...since the law is chiefly ordained to the common good, any other precept in regard to some individual work, must needs be devoid of the nature of a law, save in so far as it regards the common good. Therefore every law is ordained to the common good.¹¹⁵

This statement is supported by Fuller, who argues that the central purpose of law is human flourishing and for people to coexist and cooperate within society.¹¹⁶ On this account, Human Law cannot truly be understood without understanding the ideal or 'common good' towards which it is striving.¹¹⁷ However, while Natural Law philosophy defines the parameters of community with exclusive reference to human beings,¹¹⁸ the focus of Earth Jurisprudence is on the comprehensive Earth community. This accords

¹¹⁴ Lon Fuller, *The Morality of Law* (1964) 53. As Fuller notes, law is the 'enterprise of subjecting human conduct to the governance of rules.'

¹¹⁵ Aquinas, above n 32, 6.

¹¹⁶ Fuller, above n 114, 123. Fuller notes further that legal philosophy *should* deliberately define law so as to assist good legal enterprises. He notes in *The Law in Quest of Itself* (1940) 2: 'No one more than [the legal philosopher] runs the risk of forgetting what he is trying to do...Though there are no doubt many permissible ways of defining the function of legal philosophy, I think the most useful is that which conceives of it as attempting to give a profitable and satisfying direction to the application of human energies in the law.'

¹¹⁷ Brian H Bix provides a helpful example in *A Dictionary of Legal Theory* (2004) 72. He notes 'there are many human activities, from painting to jogging, to boxing, that are hard to understand unless one knows the objective or ideal toward which the participants are striving.'

¹¹⁸ For example Finnis, above n 47, 134-161.

with recent insights into the interconnectedness of nature and recognition that human good cannot be isolated and measured independent of the good of this comprehensive community.

It is not clear that the purposive interpretation of law advanced in Earth Jurisprudence contradicts Legal Positivism in any way that positivists would wish to deny. Indeed, if notions of purpose and common good form an important element of legal development, as is often admitted,¹¹⁹ then it is difficult to see the justification for taking an exclusive attitude. As argued by Fuller, to exclude the ideal from a theory of law on the basis of a 'separation of description and evaluation' is to miss the point entirely. The social practice and institution of law, 'is by its nature a striving towards' ideals such as common good.¹²⁰ To support this argument, Fuller contrasted laws with other forms of governance such as managerial direction.¹²¹ Law is a particular 'means to an end' or a kind of tool.¹²² With this in mind, one can better understand the claim that rules must meet certain criteria connecting the means to the function, if they are to be accorded legal authority. Brian H Bix explains Fuller's point as follows:

If we define 'knife' as something that cuts, something which failed to cut would not warrant the label, however much it might superficially resemble true knives. Similarly, if we define law as a particular way of guiding or co-ordinating human behaviour, if a system's rules are so badly constructed that they cannot succeed in effectively guiding behaviour, then we are justified in withholding the label 'law' from them.¹²³

From this perspective, legal authorities are not entirely free to create law. They must acknowledge and respond to factors that have consequence for law's purpose – the

¹¹⁹ MDA Freeman, *Lloyds Introduction to Jurisprudence* (2008) 50.

¹²⁰ Lon Fuller, 'Human Purpose and Natural Law' 53 (1956) *Journal of Philosophy* 697. Note that Fuller described the purpose of law in terms of 'order', 'good order' and 'justice'.

¹²¹ Fuller, above n 114, 207-214.

¹²² In most instances, Fuller was speaking primarily of legislation. In other writings, he focused specifically on adjudication, mediation, contractual agreements and managerial directions. See further, Lon Fuller, *The Principles of Social Order* (1981).

¹²³ Brian H Bix, *Jurisprudence: Theory and Context* (2009) 85.

attainment of the comprehensive common good.¹²⁴ To be clear, not every Human Law will be affected by this standard.¹²⁵ For example, Earth Jurisprudence does not have an obvious or direct relationship to the law of assault or contract law. Further, unlike Natural Law philosophy, it does not seek to enter broad ethical discourse and advance opinion on sexual preference or matters concerning life and death.¹²⁶ Instead, Earth Jurisprudence is concerned specifically with matters concerning the environment and human-Earth interactions. It has obvious implications for property law and while not yet analysed, it would also have broader implications for environmental law, planning law, natural resource management, and conservation heritage, to name a few.

Once one takes a purposive or functional approach to law, important consequences follow regarding laws that contravene this standard. These are considered in the next section. It argues that the Great Law acts as a standard for Human Law and a measure for legal quality. Further, purported laws that are inconsistent with the Great Law are considered defective and not morally binding on a population. In this regard, Earth Jurisprudence provides a legal justification for challenging the authority of law and engaging in civil disobedience.

IV. THE INTERACTION BETWEEN THE GREAT LAW AND HUMAN LAW

This chapter has outlined the legal categories Great Law and Human Law. It described Great Law with reference to the ecocentric principle of Earth community. Human Law

¹²⁴ See Kenneth Winston, 'The Ideal Element in a Definition of Law' (1986) 5 *Law and Philosophy* 89: 98.

¹²⁵ This selective approach is consistent with the description of Natural Law offered by Cicero. Cicero for example argued that there is some matters which the 'Gods' have no concern and which human lawmakers had legitimate authority to decide. See Cicero, *The Republic and the Laws* (1998) 134

¹²⁶ See for example Finnis, above n 27, 90-91.

was described as rules passed by human authorities that are consistent with the Great Law and are enacted for the good of the Earth community as a whole. Regarding the interaction between these two categories of law, two points are discussed and analysed in this section. First, only prescriptions that are consistent with the Great Law and directed toward the comprehensive common good have the quality of law. Second, any purported law that is in conflict with the Great Law is regarded as defective or a mere corruption of law and not morally binding on a populace. In this instance, Earth Jurisprudence provides a justification for civil disobedience. We consider these points in turn.

1. Legal Quality

Earth Jurisprudence requires Human Law to be articulated with reference to the principle of Earth community. Cullinan supports this interpretation, holding that the Great Law should be understood as the 'design parameters within which those...engaged in developing Earth Jurisprudence for the human species must operate.'¹²⁷ This approach requires lawmakers to interpret the Great Law and translate their conclusions in a way that recognises nature's integrity as a bedrock value or limit for Human Law.¹²⁸ Because the Great Law requires interpretation, there are likely to be a range of rules that are consistent with the Great Law rather than one correct application. The rules actually chosen by lawmakers need not coincide with the rules that specific

¹²⁷ Cullinan, above n 5, 84-85.

¹²⁸ Earth Jurisprudence does not seek to take control of the lawmaking process. Nor do principles, such as Earth community, represent normative statements that can be applied directly as law. In regard to this concern see Eric T Freyfogle, *Bounded People, Boundless Lands: Envisioning a New Land Ethic* (1998) 108.

individuals within that community would have chosen.¹²⁹ They need not even regard them as sensible or desirable.¹³⁰ However, by advocating a necessary connection between law and the environment, Earth Jurisprudence ensures that environmental ideas are not imposed from the outside in an ad hoc or limited way.¹³¹ Instead, they are central to our idea of law and an immediate measure of legal quality.

Shortly before dying in 2009, Berry commented on how the Great Law could set the design parameters for Human Law. He wrote:

It would be appropriate if the prologue of any founding Constitution enacted by humans would state in its opening lines a clear recognition that our own human existence and well-being are dependent on the well-being of the larger Earth community...this statement might be followed by a statement that care of this larger Earth community is a primary obligation of the nation being founded.

Such a statement would be particularly appropriate in the assembly of nations known as the United Nations. As things are at present, each of the nations identifies itself as a 'sovereign' nation, that is, a people bounded together by a national covenant whereby it declares itself as self-referent, that is, subject to no other Earthly power in the conduct of its affairs...there is no mention of any relationship with the natural world or with any other mode of being, not even of the planet we live on and out of which comes all that we are and all that we have.¹³²

These comments recognise the critical role of positive law in implementing the broad changes required by Earth Jurisprudence.¹³³ They are also consistent with other proposals for an Eco-Constitutional State,¹³⁴ the recognition of the rights of nature in

¹²⁹ Finnis, above n 27, 289.

¹³⁰ Ibid 290. Reference to desirability is particularly important in the context of large corporations who may wish to continue the 'business as usual' mentality.

¹³¹ For example, division six of the *Environmental Protection and Biodiversity Act 1999* (Cth), which provides for the production of an environmental impact statement.

¹³² Berry in Cullinan, above n 5, 13-14. The notion of design parameters was noted by Aquinas as one way that a thing may derive from the Natural Law. This principle identified by Aquinas is *determinatio*, described in question 95, article 2; 'to the arts in which some common form is determined to a particular instance: as, for example, when an architect, starting from the general idea of a house, then goes on to design the particular plan of that house...'. Aquinas notes further a second way something can be derived from the Natural Law, namely 'a conclusion drawn from more general principles.' As presently described, Earth Jurisprudence is only concerned with the former.

¹³³ Note analogy with natural rights theory, which originated as a type of Natural Law but now receives legitimacy through positive legislation. See further Jeremy Waldron, *Nonsense upon Stilts: Bentham, Burke and Marx on the Rights of Man* (1988).

¹³⁴ See for example Bosselmann, above n 5, 222-264. See also Robyn Eckersley, *The Green State: Rethinking Democracy and Sovereignty* (2004).

national Constitutions¹³⁵ and attempts in international law to formulate a covenant for ecological governance.¹³⁶ The essence of this work is captured in the Project for Earth Democracy.¹³⁷ Bosselmann explains that Earth democracy 'requires a shift from economics to ecology realizing their common ground i.e. the Earth our home.'¹³⁸ Existing forms of governance were designed and exist to promote human well-being.¹³⁹ Under this anthropocentric framework, environmental governance is a small concern. It is an 'add-on or a minimalist, shallow program...the poor cousin of economic governance.'¹⁴⁰ However if principles such as Earth community were recognised at the Constitutional level, legislators would be required to have appropriate regard them when articulating Human Law. A purported law that was inconsistent with the principles of Earth democracy would be open to legal challenge and under current principles of Constitutional law could be rendered invalid through inconsistency.¹⁴¹

While proponents of Earth Jurisprudence advocate a relationship with positive law, they also recognise that the Great Law is prior to Human Law and is not something

¹³⁵ For an overview of recent developments see Peter Burdon, 'The Rights of Nature: Reconsidered' (2010) 49 *Australian Humanities Review* 69. In 2008 the Constitution of Ecuador was amended. Article One reads: 'Art. 1: Nature or Pachamama, where life is reproduced and exists, has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution. Every person, people, community or nationality, will be able to demand the recognitions of rights for nature before the public organisms. The application and interpretation of these rights will follow the related principles established in the Constitution.' A similar Constitutional change looks possible in neighbouring Bolivia. See John Vidal, *Bolivia Enshrines Natural World's Rights With Equal Status for Mother Earth* (2011) <<http://www.guardian.co.uk/environment/2011/apr/10/bolivia-enshrines-natural-worlds-rights>>.

¹³⁶ Important examples include the 1983 *World Charter for Nature*; 1991 *Caring for the Earth*; 1992 *Declaration of the Parliament of World Religions*; 1996 *Earth Covenant*; 1997 *Declaration on the Responsibilities of the Present Generations Towards Future Generations*; 2000 *Earth Charter*; 2000 *A Manifesto for Earth* and 2002 *A Manifesto for Life*. For an overview and discussion of their application to Earth Jurisprudence see J Ronald Engel and Brendan Mackey, 'The Earth Charter, Covenants, and Earth Jurisprudence' in Peter Burdon (ed), *An Invitation to Wild Law* (2011).

¹³⁷ Klaus Bosselmann, 'Earth Democracy: Institutionalizing Sustainability and Ecological Integrity' in J Ronald Engel, Laura Westra and Klaus Bosselmann (eds), *Democracy, Ecological Integrity and International Law* (2010) 91 and Vandana Shiva, *Earth Democracy: Justice, Sustainability, and Peace* (2005). At 107 Bosselmann defines Earth democracy as a type of democracy that 'promotes decision-making that is reflective of the relationship between human and non-human spheres and their ecological balancing.'

¹³⁸ Bosselmann, above n 137, 103.

¹³⁹ Ibid. See also Berry in Cullinan, above n 5, 14.

¹⁴⁰ Bosselmann, above n 137, 103.

¹⁴¹ Tony Blackshield and George Williams, *Australian Constitutional Law and Theory* (2002) 11.

created by lawmakers.¹⁴² It can also be considered analogous to other fundamental principles such as liberty, equality and justice. While these ideals are considered the basis for western culture, the Great law supports the conditions under which they can thrive.¹⁴³ As such, it provides a standard through which to judge the moral authority of existing laws.

One visible example of the relationship between the Great Law and Human Law can be noted in 2007 when former vice president of the United States, Al Gore stated: 'I can't understand why there aren't rings of young people blocking bulldozers, and preventing them from constructing coal-fired power plants.'¹⁴⁴ These comments were followed in a 2008 address to the Clinton Global Initiative: 'If you're a young person looking at the future of this planet and looking at what is being done right now, and not done, I believe we have reached the state where it is time for civil disobedience to prevent the construction of new coal plants that do not have carbon capture and sequestration.'¹⁴⁵ In the example raised by Gore, we can presume that the proponent in question has applied for and received the relevant legal permits and licenses to carry out construction of a coal plant. Consistent with other large-scale projects, there has likely be some form of community consultation, opportunity for public comment and negotiation with stakeholders. However, because of the known ecological damage caused by coal-

¹⁴² On the primacy of the Great Law see Cullinan, above n 5, 74: 'So it is that even the sophisticated governance structures of the European Union allocate greater fishing quotas than the fish stocks can bear, year after year. They have many scientists who advise them against doing so, but at the heart of it they do not accept (or do not care) that human governance systems are subservient to the unyielding rules of nature. No directive from Brussels can overrule the principle that continued over exploitation will reduce the fish population until it reaches levels that are so low that commercial fishing is not viable.'

¹⁴³ This proposition is adapted from Klaus Bosselmann, *Research Philosophy* (2011) <<http://www.law.auckland.ac.nz/uoa/os-klaus-bosselmann-research-philosophy>>.

¹⁴⁴ Matthew Leonard, *Al Gore Calling for Direct Action Against Coal* (2007) <<http://understory.ran.org/2007/08/16/al-gore-calling-for-direct-action-against-coal/>>. Gore's comments represent a mainstream voice on civil disobedience. For similar statements from grass roots activists and organisations see Steven Best, *Igniting a Revolution: Voices in Defense of the Earth* (2006).

¹⁴⁵ Michelle Nichols, 'Gore Urges Civil Disobedience to Stop Coal Plants' (2008) <<http://uk.reuters.com/article/idUKTRE48N7AA20080924>>.

fired power plants and the risk they pose to the long-term common good, Gore questions the legitimacy of the project. More than this, he expresses his dismay that individuals are not positively 'breaking the law' to stop the project.

To understand these comments it is useful to refer once more to the Natural Law tradition. From this perspective, it is possible to interpret Gore's statements in (at least) three different ways. First, as saying that the law authorising the construction of a coal fired power plant has the potential to cause such great harm to the Earth community that there is no *moral* obligation to obey that law.¹⁴⁶ Second, that the law in question is not *legally valid* or that there is no law at all.¹⁴⁷ Finally, that the law is legally valid but that it is not law in the *true* sense of the word.¹⁴⁸ That is - because the law is strongly contrary to environmental health, it is *defective as law*.¹⁴⁹ Mark C Murphy elaborates on the use of the term defective:

To say that something is defective is to say that it belongs to a certain kind and there are certain standards of perfection that are internal to it (that are intrinsic to it, that necessarily belong to) members of that kind. To be an alarm clock just is, in part, to be the sort of thing that if it cannot sound an alarm when one wishes to be awakened, it is defective. But something can be an alarm clock even if it cannot sound an alarm: it might be broken, or poorly constructed, or whatever.¹⁵⁰

According to the third interpretation of Gore's statement, law has certain standards that

¹⁴⁶ While this is a legitimate interpretation of Gore's statement, it says nothing about the nature of law. It is thus contrary to the ecological and purposive description of Human Law presented in this chapter. Other adherents to natural law philosophy would similarly reject this 'moral reading', on the basis that it trivialises the natural law thesis. As Murphy observes, interpreting natural law as a claim about the justifiability of disobeying unjust laws, 'is excruciatingly uninteresting, a claim that almost everyone in the history of moral and political philosophy has accepted, and thus is not much worth discussing', Mark C Murphy, *Natural Law in Jurisprudence and Politics* (2006) 10.

¹⁴⁷ This position is similar to the 'strong Natural Law thesis'. For arguments in favour of this position see G Radbruch, 'Statutory Lawlessness and Supra-Statutory Law' (2006) 26 *Oxford Journal of Legal Studies* 7 and R Alexy, *The Argument for Injustice: A Reply to Legal Positivism* (2002) 54. Criticisms levelled at the strong Natural Law thesis are equally relevant to its potential application in Earth Jurisprudence. In particular, critics note that it is implausible to suppose that rules which meet all the acknowledged criteria of legal validity in a system and are taken to be the law by officials in that system could fail to be laws. Even some Natural Law proponents such as John Finnis argue that: 'Human law is an artefact and artifice, and not a conclusion from moral [or other] premises', above n 113, 205.

¹⁴⁸ For an examination of legal validity in Natural Law philosophy see Murphy, above n 146, 9-12.

¹⁴⁹ *Ibid* 12.

¹⁵⁰ Mark C Murphy, *Philosophies of Law* (2007) 44.

are internal to it and a failure to meet these standards renders a purported law defective. Consistent with the purposive description of Human Law detailed above, it is the third interpretation that will be advanced in this chapter. From this perspective, Earth Jurisprudence advocates a particular methodological approach. It suggests that theorising about law should not be a neutral exercise¹⁵¹ that is divorced from the broader context of our existence and fails to have appropriate regard for the common good of the comprehensive Earth community.

This contextual interpretation of Earth Jurisprudence is supported further by the notion of ‘central case’ advanced by Finnis.¹⁵² Briefly, the ‘central case’ is an approach within social theory that seeks to describe an institution whose interpretation varies substantially between different theorists. Rather than discussing what all interpretations have in common, a central case methodology chooses characteristics that may appear fully only in the most developed or sophisticated instantiation of the thing.¹⁵³ Finnis uses this methodology to draw a distinction between the ‘focal’ and ‘secondary’ meanings of law.¹⁵⁴ The focal meaning of law refers to its ideal form, a form to which actual law is a mere striving or approximation.¹⁵⁵ In contrast, the ‘secondary’ meaning of law refers to instances of law that are ‘undeveloped, primitive, deviant or other “qualified sense” or “extended sense” instances of the subject matter.’¹⁵⁶ When we are concerned with law in the secondary sense – prescriptions that are merely ‘in a sense law’ – there is no point in

¹⁵¹ This point is also central to the critical legal studies movement.

¹⁵² Finnis, above n 27, 10. For a critique of Finnis’s attempt to identify the central case of law with morality see HLA Hart, *Essays in Jurisprudence and Philosophy* (1983) 12.

¹⁵³ Brian H Bix, above n 117, 30-31.

¹⁵⁴ Finnis, above n 27, 9-10.

¹⁵⁵ *Ibid* 11.

¹⁵⁶ Finnis, above n 27, 9-10. This argument can be traced back to Aristotle’s ‘Nicomachean Ethics’ and ‘Politics’. See Jonathan Barnes, *The Complete Works of Aristotle* vol II (1984) 1157a30-33 and 1:1275a33-1276b4. For example in *Nicomachean Ethics* Aristotle writes of friendship ‘...there are several kinds of friendship – firstly and in the proper sense that of good men *qua* good, and by similarity the other kinds; for it is in virtue of something good and something similar that they are friends, since even the pleasant is good for the lovers of pleasure.’

asserting that they lack legal validity. Rather, they are valid and enforceable laws that fall short of the ideals that are contained in the concept of law in its fullest sense. Here the positivist argument that any standard which meets the predetermined criteria for validity in a particular legal system is valid, sits alongside and can co-exist with the ecocentric account of law, on which 'true' law aims at securing the comprehensive common good.

Following Aquinas, Finnis describes the central case of law to be the 'complete community', defined as 'an all-round association' that includes the 'initiatives and activities of individuals, of families and of the vast network of intermediate associations.'¹⁵⁷ Its purpose or point is to secure the common good or – the 'ensemble of material and other conditions that tend to favour the realisation, by each individual in the community, of his or her personal development.'¹⁵⁸ Thus, as described by Finnis, the focal meaning of law is to secure the common good of human beings by co-ordinating the different goods of individuals within the community. Finnis contends that this is the true purpose of law and any law that conflicts with this goal is not a law in the focal sense of the term. They are not true laws 'in the fullest sense of the term' and 'less legal than laws that are just.'¹⁵⁹

The notion of 'central case' has the potential to be useful for supporting the theory of law advanced in Earth Jurisprudence. It also avoids unnecessary criticism that would attach to the argument that a law that was inconsistent with the Great law was not a law at all.¹⁶⁰ However, to be consistent with the principle of Earth community, the 'complete community' described by Finnis would need to be extended from human

¹⁵⁷ Finnis, above n 27, 147.

¹⁵⁸ Ibid 154.

¹⁵⁹ Ibid 279.

¹⁶⁰ For an example of his this argument has been made in the context of Natural Law philosophy see Finnis, above n 111, 34. Finnis argues that the true classical doctrine never purported to derive 'ought' from 'is'.

beings¹⁶¹ to include the comprehensive Earth community.¹⁶² Interestingly, Finnis recognises that ecological interconnectedness is a form of relationship.¹⁶³ He also provides for the extension of his definition of the 'complete community'. Looking to the future he contends: 'If it appears that the good of individuals can only be fully secured and realised in the context of the international community, we must conclude that the claim of the national state to be a complete community is unwarranted.'¹⁶⁴ Following this logic further, if the good of individuals and communities can only be secured by extending the central case of law to the Earth community, then this comprehensive community should be the reference from which to judge legal quality. This would mark a shift from an anthropocentric interpretation of law and toward an ecocentric interpretation.

2. Corruptions and Civil Disobedience

Human Laws, inconsistent with the Great Law are thus not laws in the focal sense of the term. They are defective and judged from the perspective of law's focal meaning, not morally binding by virtue of their own legal quality. This gives rise to issues concerning the authority of law and civil disobedience.¹⁶⁵ Due to space constraints, this section cannot engage with the broad complexities of this topic. In particular it does not

¹⁶¹ Finnis, above n 27, 152.

¹⁶² Cullinan, above n 5, 77-78. Cullinan critiques Finnis on his limited understanding of community. Cullinan argues further that 'if we shift our point of reference from what we consider to be good for the individual in (Western) societies to what is good for Earth, the conclusions are likely to be very different. From an Earth jurisprudence perspective, the inherently anthropocentric flavour of current concepts of natural law makes the debates that have raged around these ideas seem rather artificial.'

¹⁶³ Ibid. At page 150 Finnis writes: 'There are relationships between men which transcend the boundaries of all *poleis*, realms or states. These relationships exist willy-nilly, in manifold and multiplying ways, in three of the four orders: for there is physical, biological, ecological interdependence, there is a vast common stock of knowledge.'

¹⁶⁴ Finnis, above n 27, 150.

¹⁶⁵ For a broad overview of these topics see Hugo Adam Bedau (ed), *Civil Disobedience: In Focus* (1991) and Christopher Heath Wellmann and Anthony John Simmons, *Is There A Duty to Obey the Law?* (2005).

consider the intricacies of how civil disobedience should be defined,¹⁶⁶ whether citizens in a contemporary Western democracy are ever justified in engaging in civil disobedience¹⁶⁷ and whether such democracies are capable of responding to the present environmental crisis.¹⁶⁸ The aim is the modest one of outlining the consequence for a law that contravenes the Great Law and is rendered defective or contrary to law's focal meaning.

The thesis defines Human Law so as to retain presumptive authority of human beings to make binding prescriptions for the community.¹⁶⁹ While this presumption is subject to debate,¹⁷⁰ this section does not attempt a resolution. Instead, for present purposes, it is sufficient to say that the law necessarily *claims* moral authority and not

¹⁶⁶ See for example, John Rawls in *A Theory of Justice* (1999) 320: 'civil disobedience [is] a public, non-violent, conscientious yet political act contrary to law usually done with the aim of bringing about a change in the law or policies of government.' See also Hugo Adam Bedau, 'On Civil Disobedience' (1961) 58 *Journal of Philosophy* 653. For arguments justifying violence as legitimate part of civil disobedience see John Morreal, 'The Justifiability of Violent Civil Disobedience' in Bedau, above n 165, 130. See also Bill Haywood, Dave Foreman, Edward Abbey, *Ecodefense: A Field Guide to Monkeywrenching* (1993); Ward Churchill, *Pacifism as Pathology* (2007) and Peter Gelderloos, *How Nonviolence Protects the State* (2007).

¹⁶⁷ This thesis maintains that there are legitimate grounds for civil disobedience. For a discussion against this position see TH Green, *Lectures on the Principles of Political Obligation* (1907) 111. The alternative position is well represented by Peter Singer, *Democracy and Disobedience* (1973) 105-132.

¹⁶⁸ See Freya Matthews, *Ecology and Democracy* (1996) and Engel, Westra and Bosselmann, above n 137. This question was debated from 25-30 June at 'State Sovereignty, International Law and Ecology', University of Florence <<http://globalecointegrity.net/pdf/GEIGFinalProgramFlorence2009.pdf>>.

¹⁶⁹ See pages 156-157.

¹⁷⁰ The most influential modern argument in favour of law's presumptive authority is the modern social contract theory articulated by Rawls, above n 166. Rawls argued that a society is just if it is governed by principles which citizens would have agreed to in a state of ignorance of their individual position in society. Where a society is just or close to just, there is, he says a 'natural duty' for citizens to support its institutions. In response to the question whether there is a general duty to obey the law, Rawls responded at 3 that such a proposition 'required no argument' and that 'at least in a society such as ours' (the United States) there was a moral obligation to obey the law. This duty exists independently of any actual or purported promise to obey because, Rawls argues at 342, behind the veil of ignorance, people would have agreed to it. For an argument against laws presumptive authority see Robert Paul Wolff, *In Defense of Anarchism* (1998). Wolff raises a paradox regarding how practical authority could ever be legitimate. He notes that authority involves deference to another, and questions how it could be morally right and consistent with autonomy to obey someone else, regardless of whether one believes that other person to be right or wrong. He notes further that do something just because one has been told (commanded) to do so could be seen as an abandonment of one's right and obligation to decide for oneself, considering all relevant reasons, what is to be done. See also Raz, above n 26. Here Raz argues that citizens do not have an obligation to obey the law. Rather, Raz argues that we have a moral reason to comply with the law when we believe we will make the best moral choice by following the law rather than our own conscience. For a useful summary of these views see Scott J Shapiro, 'Authority' in *The Oxford Handbook of Jurisprudence and Philosophy of Law* (2002) 382.

that it necessarily *has* moral authority.¹⁷¹ Rather than becoming entangled in this discourse, proponents of Earth Jurisprudence focus on describing law in a way that removes the self-validating nature of Legal Positivism¹⁷² and considers Human Law in the context of the Great Law. From this perspective the authority of laws promulgated by human authorities are *contingent* on their consistency with the Great Law and the attainment of the comprehensive common good.¹⁷³

Arguments pertaining to the contingent nature of legal authority are commonplace in political philosophy.¹⁷⁴ What makes Earth Jurisprudence unique within this discourse is the method it advocates for determining legal quality. Through the principle of Earth community, it provides a rational basis for the activities of legislators and furnishes a guide to decide whether citizens have a moral obligation to obey the law. This method does not purport to be purely objective and provide a certain test for determining when civil disobedience is justified.¹⁷⁵ Indeed, whether in a particular case

¹⁷¹ Denise Meyerson, *Jurisprudence* (2011) 18. Note that our ultimate obligation to obey the law is a moral obligation and not a legal obligation. See further Singer, above n 167, 3. Singer argues that our obligation to obey the law cannot be legal since this 'would lead to an infinite regress – since legal obligations derive from laws, there would have to be a law that says we must obey the law. What obligation would there then be to obey this law? If legal obligation, then there would have to be another law...and so on. If there is any obligation to obey the law, it must, ultimately be a moral obligation.'

¹⁷² Thomas Berry, 'Foreword' in above n 5 (2006), 107.

¹⁷³ A similar focus is taken in Natural Law philosophy. See Finnis, above n 47, 360. Finnis contends that if lawmakers use their 'authority to make stipulations against the common good...those stipulations altogether lack the authority they would otherwise have *by virtue of being his*. This reasoning is influenced by Aquinas who in question 96, article 4, emphasised the relationship between obligation and common good and recognises the existence of first principles of Natural Law, which are immutable, Aquinas, above n 32, 96. An example of an immutable first principle is 'Do harm to no man'.

¹⁷⁴ For example MBE Smith, 'Do We Have a Prima Facie Obligation to Obey the Law?' (1973) 82 *Yale Law Journal* 950 argued at 951: 'although those subject to government often have a prima facie obligation to obey particular laws...they have no prima facie obligation obey all of its laws.' In agreement, Rawls notes at above n 170, 321 that the presumptive authority of law could 'of course be overridden in certain cases by other more stringent obligations.' See also Heidi Hurd, *Moral Combat* (2008) who argues that law cannot require one to do what morality forbids. She claims at 153 that law can serve, at most, as a 'theoretical authority.'

¹⁷⁵ In critique of 'higher law' justifications for civil-disobedience Carl Cohen notes in 'Militant Morality: Civil Disobedience and Bioethics' 19(6) *Hastings Center Report* 23 that such approaches: 'encounter perennial difficulties: the source, authority and content – and even the meaning – of such laws...are matters of unending dispute.' Recent debates over climate change provide a pertinent illustration of the complexities of reaching agreement on scientific issues. For an overview of this debate see Andrew Dessler and Edward A Parson, *The Science and Politics of Global Climate Change: A Guide to the Debate* (2010).

our presumed obligation to obey the law can be outweighed is not something that can be determined in the abstract.¹⁷⁶ Its application to ‘hard cases’¹⁷⁷ is likely to be subject to as much debate and disagreement as other moral justifications for civil disobedience.

Amongst the objections to describing legal authority as contingent, are appeals to avoiding bad example, civil disturbance or the weakening of an otherwise just legal system.¹⁷⁸ This objection can also be stated in consequentialist terms whereby one is asked to consider the potentially negative consequences that may follow for a society in which people disobey the law. Thomas Hobbes represents the classical source for this proposition, arguing that ‘perpetual war of every man against his neighbour’¹⁷⁹ was the condition of a lawless society. Finnis makes this argument in terms of ‘collateral obligation’. He contends:

It may be the case, for example, that if I am seen by fellow citizens to be disobeying or disregarding this ‘law’, the effectiveness of other laws, and/or the general respect of citizens for the authority of a generally desirable ruler or Constitution, will probably be weakened, with probable bad consequences for the common good. Does not this collateral fact create a moral obligation?¹⁸⁰

Such arguments of principle tend to ignore empirical evidence, which suggests that actual examples of concerted civil disobedience do not produce a weakening of bonds to comply with other legislation.¹⁸¹ Instead, civil disobedience tends to be targeted and

¹⁷⁶ Commenting on this point, Singer notes at above n 167, 64: ‘to expect any work of theory to give answers to such questions is to expect more than theory alone can give.’

¹⁷⁷ Term is borrowed from Ronald Dworkin, *Taking Rights Seriously* (1978). Hard cases refer to those instances where competently trained and thoughtful people might come to different conclusions about the result.

¹⁷⁸ For a comprehensive overview see MBE Smith, ‘The Duty to Obey the Law?’ in D Patterson (ed), *A Companion to Philosophy of Law and Legal Theory* (1996) 465. Prominent advocates of this objection include those working within the Natural Law tradition. See for example, Aquinas, above n 32, 94. Aquinas provided circumstances where he held that an unjust law ought to be obeyed ‘to avoid scandal.’ These concern taxation and property. See also Finnis, above n 27, 356.

¹⁷⁹ Thomas Hobbes, *Leviathan* (1996) [first published 1651] 143.

¹⁸⁰ *Ibid.*

¹⁸¹ Singer, above n 167, 136-147. See also Ronald Dworkin, ‘On Not Prosecuting Civil Disobedience’ (1968) 10(11) *New York Review of Books* 14. Dworkin notes at 14: ‘Many people think...the government must

focused rather than indiscriminate and violent.¹⁸² Far from weakening a democratic state, civil disobedience is justified by the role it plays in bringing publicity to¹⁸³ or perhaps a fair hearing of¹⁸⁴ a particular issue. Civil disobedience may also provide a method for compelling lawmakers to reconsider a purported law.¹⁸⁵ In the context of Earth Jurisprudence, it may be the case that a lawmaker may act or fail to act with regard to the consequences that a purported law might have for the common good of the Earth community. In this circumstance, civil disobedience that aims to make lawmakers reconsider their actions is a potential method for settling the issue and realigning Human Law with the Great Law. Further, in jurisdictions that provide discretion for prosecutors, the test of legal quality advocated by Earth Jurisprudence may be used to guide those responsible for implementing the law about when protests ought to be tolerated (both morally and pragmatically).¹⁸⁶

A purported law that is inconsistent with the Great Law may, depending on the specific circumstances, be so serious that civil disobedience is justified regardless of the consequences to government.¹⁸⁷ The justification for this position is tied to the primacy

prosecute the dissenters and...punish them...often this is because they are told the mindless view that conscientious disobedience is the same as lawlessness.'

¹⁸² Singer, above n 167, 136-147. For an excellent summary of ecological civil disobedience around the world see Bron Taylor (ed), *Ecological Resistance Movements: The Global Emergence of Radical and Popular Environmentalism* (1995).

¹⁸³ See for example Bertrand Russell, 'Civil Disobedience and the Threat of Nuclear Warfare' in Bedau, above n 165. In the context of nuclear warfare Russel notes at 156: 'By means of civil disobedience, a certain kind of publicity becomes possible...Many people are roused to inquire into questions which they have been willing to ignore.'

¹⁸⁴ See Bertrand Russell, 'On Civil Disobedience' in *The Autobiography of Bertrand Russel* (1969) 141-142.

¹⁸⁵ Singer, above n 167, 84. For specific examples (within the context of existing positivist law) see Paul Hawken, *Blessed Unrest: How the Largest Movement in the World Came into Being and Why No One Saw It Coming* (2007) 77-85.

¹⁸⁶ This may be particularly relevant where discretion is provided to prosecutors in the context of environmental disobedience. See Dworkin, above n 181, 14. N Fairweather, 'The Future of Environmental Direct Action: A Case for Tolerating Disobedience' in N Fairweather, Sue Elworthy, Matt Stroh and Piers Stephens (eds), *Environmental Futures* (1999) 108-112 lists seven additional criteria for justifying environmental disobedience.

¹⁸⁷ This is contrary to other statements justifying civil disobedience. For example, Singer notes at above n 167, 85; 'Once it becomes apparent that the majority are not willing to reconsider [their

of the Earth community and the recognition that human beings are interconnected and dependant on nature. If a purported law is so insensitive to the Great Law that it places the lives of human beings and other components of the Earth community in jeopardy, it is difficult to see the rationale for preferencing the maintenance of a human political institution. It is not difficult to take this abstract statement and apply it to instances of the present environmental crisis outlined in the introduction to this thesis.¹⁸⁸ If governments fail to take necessary action to prevent runaway climate change or continue to approve industrial practices that degrade ecosystem or species biodiversity, then on what grounds is their own authority assured? Further, could the actions of protestors who resist government action/inaction be considered morally legitimate and not deserving of punishment? Certainly, these are complex questions and deserving of more attention than can be allocated in this chapter. However, at a basic level Earth Jurisprudence maintains that we must question the value and legitimacy of any law that surpasses the ecological limits of the environment to satisfy the needs of one species. Such an action is unsustainable and risks the common good and future flourishing of the interconnected Earth community.¹⁸⁹

position]...disobedience must be abandoned.' It is difficult to accept this position in the context of serious threats to the Earth community brought about by government action/inaction over environmental issues.

¹⁸⁸ See pages 5-7.

¹⁸⁹ See also Cullinan, above n 5, 74.

V. CONCLUSION

This chapter presents an interpretation of Earth Jurisprudence as a legal philosophy. It has sought to outline the legal categories proposed in Earth Jurisprudence and consider how they interact with each other.

It began by describing Earth Jurisprudence as a theory of natural law. It posited the existence of two kinds of 'law', organised in a hierarchy. At the apex is Great Law, which represents the principle of Earth community. Below the Great Law is Human Law, which represents rules articulated by human authorities that are consistent with the Great Law and enacted for the common good of the comprehensive Earth community. Human Law was also described as purposive rather than neutral or value free. The stated purpose of human law is to secure conditions that favour the health and future flourishing of the Earth community. On this account, Human Law cannot truly be understood without reference to the ideal or common good toward which it is striving.

Regarding the interaction between legal categories, this chapter argued that Human Law derives its legal quality from the Great Law. Further, that a purported law that is in conflict with the Great Law is defective and not morally binding on a populace. Defective laws, while still enforceable by the state, are considered not 'true' laws or law 'in the fullest sense. Earth Jurisprudence does not seek to invalidate human law. Rather, it provides a rational basis for the activities of legislators and a guide to deciding whether one has a moral obligation to obey. Purported laws that neglect or contravene this standard can (in theory) provide a justification for civil disobedience. Civil disobedience can further be justified because of the role it can play in bringing publicity or a fair hearing to an issue and also as a means of encouraging lawmakers to amend a defective law.

Having outlined a theory of Earth Jurisprudence, this thesis returns full circle to the concept of private property outlined in chapter two. As discussed, the dominant description of private property reflects an outdated and environmentally harmful anthropocentric paradigm. Recognising the fundamental role legal theory plays in the development of legal concepts, chapter five presents an ecocentric theory of private property, that is consistent with the philosophy of Earth Jurisprudence.

CHAPTER FIVE

PRIVATE PROPERTY: REVISITED

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Private Property: Revisited

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I. INTRODUCTION

Earth Jurisprudence is an ecocentric theory of law. In contrast to the present anthropocentric paradigm, it recognises that human beings exist as one part of a broader Earth community. It also argues that it is necessary to situate human laws within the physical context of the Earth's system. To this end, Earth Jurisprudence links Human Law to a 'higher' Great Law. It also argues that human law is purposive and ought to be directed toward the common good of the Earth community. According to this interpretation of Earth Jurisprudence, ecocentric ethics are integral to law and not something imposed externally by legislators in an ad hoc or limited way.¹

This chapter builds on this discussion and presents an alternative description of private property that is consistent with the philosophy of Earth Jurisprudence. The first part of this chapter critiques the suggestion put forward by some proponents of Earth Jurisprudence that private property is inconsistent with ecocentric ethics and ought to be discarded as a social institution. Instead, this chapter presents a reformist agenda that seeks to give private property radically new content. This approach draws on the indeterminate description of private property advanced in chapter two. As noted, private property is not a static or fixed concept – it is an evolving social institution. The contemporary liberal statement describes private property as a bundle of rights, liabilities, powers and duties.² According to this view, private property is not a single, determinate right and different 'sticks' within the bundle can be added or removed to serve different ends. Thus, while the current bundle of sticks reflects anthropocentric

¹ It was argued in chapter two that by viewing law as connected to morality, the concept of private property articulated by Natural Law jurists entailed more environmental ideas than Legal Positivism. For further discussion see Sean Coyle and Karen Morrow, *The Philosophical Foundations of Environmental Law* (2004) 96 and 212-213.

² Tony Honoré, 'Ownership' in Anthony Guest (ed), *Oxford Essays in Jurisprudence* (1961) 107.

values, it can be reconfigured to promote ecocentric ethics and the principle of Earth community.

This chapter describes private property as a relationship between members of the Earth community, through tangible or intangible items. To be consistent with the philosophy of Earth Jurisprudence, the concept of private property must respond to three interconnected factors: (i) property is an inherently social institution and ought to be limited by government and community norms. This analysis reconceptualises the notion of autonomy from individualism to being socially situated and argues that property rights ought to be contingent on their impact on others within the community; (ii) nonreciprocal obligations and responsibilities are inherent to the concept of private property. The existence of such duties arise in response to the concept of Earth community and because of the ability human beings have to cause great devastation to nature; and (iii) private property should place specific importance on the 'thing' itself which is the subject matter of a private property relationship. That is – private property is a relationship facilitated by a specific item with unique attributes. If conceived in this way, the item of a property relationship could play a key role in shaping the types of use-rights and responsibilities that attach to private property. For land, ownership could shift from the present right-based framework to an unfolding practice that adapts to place and treats nature as a subject rather than an object. This chapter concludes that a theory of private property that overlooks any of these considerations is defective according to the philosophy of Earth Jurisprudence.

II. THE INDETERMINACY OF PRIVATE PROPERTY

Some advocates for Earth Jurisprudence have argued that private property is incompatible with any transition toward an ecocentric paradigm. To be successful, they argue, private property needs to be abolished as social institution.³ While sympathetic to the critique such theorists apply to the sustainability of the rights-based theory of private property, this section contends that they have inadequately explored the possibilities of legally restructuring private property. This has resulted in a premature advocacy for the abolition of private property.⁴ As noted in the introduction, there is a growing and sophisticated scholarship that seeks to provide an ecocentric conception of private property.⁵ Consistent with this literature, the interpretation of Earth Jurisprudence offered in this thesis does not seek to remove private property as an organising idea. Rather, it offers a more pragmatic approach that seeks to give private property radically new content.⁶

The reformist approach adopted in this chapter is supported by the analysis of private property presented in chapter two. As noted, private property is a dynamic social construct that is influenced by economic, legal, religious and philosophical factors.

³ See Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice* (2003) 169-170. See also Thomas Linzey, *Be The Change: How To Get What You Want In Your Community* (2009) and Thomas Linzey, 'Of Corporations, Law, and Democracy: Claiming the Rights of Communities and Nature' (2005) <http://www.smallisbeautiful.org/publications/linzey_06.html>. Linzey expressly advocates a separation arguing: 'we must turn a property-and-commerce constitution into a rights-and-nature constitution.' See also Erin Fitz-Henry, 'Corporations Are Not People, and Ecosystems Are Not Property' (2011) <http://www.ssps.unimelb.edu.au/community/events/info/corporations_and_ecosystems>.

⁴ In making this point, this section acknowledges the long and considered tradition advocating for the abolishment of private property. Anarchism for example argues that property in land, natural resources, and the means of production should be held in mutual control by local communities, federating for innumerable joint purposes with other communes. See PJ Proudhon, *What is Property: An Inquiry into the Principle of Right and of Government* (1970) [first published 1840]. It is also important to note the central importance Western culture places on private property. Joseph William Singer notes in *Entitlement: The Paradoxes of Property* (2000) 1: 'At the start of the twenty-first century, faith in private property as a mode of economic organization is as strong as it has ever been.'

⁵ See page 33.

⁶ Roberto Unger would describe this approach as giving private property 'internal development' or 'revolutionary reform'. He argues that when combined with political will, the reformist approach can bring about structural change and not just tinkering. See further Roberto Under, *The Critical Legal Studies Movement* (1986) 114.

As C Edwin Baker observes: 'Property rights are a cultural creation and a legal conclusion.'⁷ From this perspective the concept of private property is indeterminate and lacks an objective and stable unitary structure that can be discovered through empirical analysis or logical deduction.⁸ The historical narrative presented in chapter two provided further support for this point. Seen from the perspective of three distinct points in history (antiquity, the scientific revolution and the industrial revolution) it was possible to observe how property has changed and adapted over time. This narrative finished with the contemporary Hohfeld-Honoré conception of property. Yet even this sophisticated description is not fixed.⁹ While Honoré listed eleven standard incidents of ownership,¹⁰ he never claimed that his arrangement was the final word.¹¹ Even working within his framework, private property can take the shape of many different bundles of rights and duties and can even be fragmented into isolated incidents.¹² Furthermore the incidents themselves are open to interpretation, making the articulation of an objective concept of private property all the more distant.

⁷ C Edwin Baker, *Property and its Relation to Constitutionally Protected Liberty* (1986) 134 *University of Pennsylvania Law Review* 741: 744.

⁸ Waldron, above n 11, 47-53. There is an alternative perspective on this issue, which holds that there is an objective or true concept of private property. Such theorists commonly hold that their construction of private property is the only interpretation. Richard Epstein for example describes private property in essentialist terms, arguing that private property means: 'the exclusive rights of possession, use and disposition' *Takings: Private Property and the Power of Eminent Domain* (1985) 304. For further analysis of this position see Margaret Jane Radin, 'The Consequences of Conceptualism' (1986) 41 *University of Miami Law Review* 239.

⁹ See Robert Goldstein, *Ecology and Environmental Ethics: Green Wood in the Bundle of Sticks* (2002) and Tony Arnold, 'The Reconstruction of Property: Property as a Web of Interests' (2002) 26 *Harvard Environmental Law Review* 281.

¹⁰ Honoré, above n 2, 161. These include, the right to possess, the right to use, the right to manage, the right to income, the right to capital, the right to transmit, the right to security, the absence of term, the prohibition of harmful use, the liability to execution and residuary rules. For an updated statement on these incidents see Lawrence C Becker, 'The Moral Basis of Property Rights' (1980) 22 *Nomos* 187.

¹¹ Honoré, above n 2, 161. See also Jeremy Waldron, *The Right to Private Property* (1988) 47-53.

¹² Arnold, above n 9, 52. As Arnold notes: 'The list is more an attempt at explanation than at codification of the incidents of property, and is clearly subject to substantial interpretation.' Some theorists have argued that the disaggregation of property renders the concept meaningless. The most prominent proponent of this view is Kevin Gray, 'Property in Thin Air' (1991) *Cambridge Law Journal* 252. Against this interpretation see Waldron, above n 11, 49-50.

Drawing on the theory of law proposed in Earth Jurisprudence, this chapter develops the internal aspects of private property to align with the Great Law. It holds that nature is a subject and that private property is a relationship between and among members of the Earth community, through tangible or intangible items. Drawing on contemporary definitions of private property,¹³ this statement is incorporated into the following description:

Private Property is a human institution that comprises a variety of relationships among members of the Earth community, through tangible or intangible items. For human beings, it is characterised by the allocation to individuals or groups of individuals of a degree of control over the use, alienation and exclusivity of scarce resources, as well as a measure of obligation and responsibility to all members of the Earth community in the exercise of the property right.¹⁴

This description of private property carries with it important consequences that are explored in this chapter. Due to space constraints, the discussion is limited to real property in land. It argues that private property ought to be limited by human social relationships, contain inherent and nonreciprocal obligations and responsibilities and bring some focus to bear on the item that is the subject matter of a property relationship.¹⁵ While separated for the purpose of conceptual analysis, in reality each of these components is fundamentally related and integral to the ecocentric description of private property presented in this chapter.

¹³ In the particular, the definition proposed by David Lametti, 'The Concept of Property: Relations Through Objects of Social Wealth' (2003) 53 *University of Toronto Law Journal* 325: 326.

¹⁴ This statement does not argue that non-human nature also carries obligations and responsibilities toward human beings or other parts of the Earth community. For a discussion on the absurdity of this position see Holmes Rolston III, 'Rights and Responsibilities on the Home Planet' (1993) 18 *Yale Journal of International Law* 251.

¹⁵ This demarcation follows the analysis of good land use advocated by Eric T Freyfogle, *Why Conservation is Failing and How It Can Regain Ground* (2006). A similar analysis from an agrarian vision of good land use was provided in Peter Burdon 'What is Good Land Use? From Rights to Responsibilities' (2010) 34(2) *University of Melbourne Law Review* (forthcoming).

III. PRIVATE PROPERTY AND HUMAN RELATIONSHIPS

Property rights are, by nature, social rights; they embody how we, as a society, have chosen to reward the claims of some people to finite and critical goods, and to deny the claims to the same goods by others. Try as we might to separate this right from choice, conflict, and vexing social questions, it cannot be done.¹⁶

Private property is a human institution and a central organising idea in society. For good or ill, people will decide what private property means and how it will be reflected in positive law. For these reasons an important consideration for private property is how it relates to human beings and communities. While necessary, this description is not exhaustive and will be extended to include nonreciprocal obligations and responsibilities, as well as the item that is the subject matter of a private property relationship. These additions are considered in parts two and three below.

Chapter two outlined the contemporary rights-based interpretation of private property. Under this interpretation, private property is a means through which to promote individualism and attain preference satisfaction. While liberal theory provides property owners with the freedom to use their property rights for the good of the Earth community, such considerations are 'secondary or derivative'¹⁷ rather than integral to the description of private property. By way of critique, it was argued that the liberal description of private property promotes environmental harm. Indeed, it invites owners to use their property without regard for other human beings or the environment. It encourages them to focus exclusively on their own self-interest and 'to act as if no one

¹⁶ Laura S Underkuffler-Freund, 'Property: A Special Right' (1996) 71 *Notre Dame Law Review* 1033: 1046.

¹⁷ Jeremy Waldron, 'Liberalism' in Edward Craig (ed), *The Shorter Routledge Encyclopaedia of Philosophy* (2005) 570.

existed but themselves.¹⁸ Under this construction, ownership and obligation are opposites because the latter limits the liberty of property holders.¹⁹

In contrast to this description, the ecocentric theory of private property characterises rights not in terms of individual entitlement, but as a social relationship. Social relations theories contend that the description of private property as unfettered or unrestrained liberty has never existed in practice and does not exist today.²⁰ While perhaps obvious, this point gives rise to an important implication – namely that private property is limited by government and community norms. The American legal realists developed this point in the 1920s.²¹ Morris Cohen, for example, argued that ‘it would be as absurd to argue that the distribution of property must never be modified by law as it would be to argue that the distribution of political power must never be changed.’²² He went on to argue that private property creates a legal relationship between the person holding private property and others.²³ In support, Felix Cohen added an important modification to the dominant bundle of rights metaphor. He wrote: ‘Private property is a relationship among human beings such that the so-called owner can exclude others from certain activities or permit others to engage in those activities and in either case secure the assistance of the law in carrying out [that] decision.’²⁴

¹⁸ Singer, above n 4, 6.

¹⁹ Paul Babe, ‘Climate Change and the Concept of Private Property’ in Rosemary Lyster (ed), *In the Wilds of Climate Law* (2010) 7. This conception of ownership begins with John Stuart Mill’s ‘self-regarding act’ see John Stuart Mill, *On Liberty* (1974).

²⁰ See Robert W Gordon, ‘Paradoxical Property’ in John Brewer and Susan Staves (eds), *Early Modern Conceptions of Property* (1995) 95. Sir William Blackstone recognised that a person’s ‘free use and enjoyment’ of private property was limited by ‘the laws of the land’, *Commentaries on the Laws of England: Volume I, Of the Rights of Persons* (1979) [first published 1769] 138.

²¹ American legal realism is a category for legal commentators operating primarily from the 1930’s and 40’s. They are termed ‘realists’ because of their desire for citizens, lawyers and judges to understand what was really going on behind the jargon and mystification of the law.

²² Morris Cohen, ‘Property and Sovereignty’ (1927) 13 *Cornell Law Quarterly* 8: 16.

²³ *Ibid.*

²⁴ Felix S Cohen, ‘Dialogue on Private Property’ (1954) 9 *Rutgers Law Review* 357: 373 emphasis added.

Building on this insight, contemporary critical scholars have argued convincingly that the source and internal constitution of private property arises from social relationships. Joseph William Singer and Jack Beermann contend:

Property rights are socially and politically constructed by both private action and government policies. It is not the case that a single set of property institutions arises naturally by interaction among citizens and then is recognised and protected by government officials who simply defer to those interests. Rather, the distribution and definition of property rights has been crucially structured both by government policy and legal institutions.²⁵

Property is something that is defined and constructed by human beings.²⁶ It is not handed down by divine grant, nor does it 'emerge fully formed like Athena from Zeus's head.'²⁷ Instead, 'it is closer to a piece of music that unfolds over time.'²⁸ It gets its stability and certainty from an ongoing process of evaluation and adaptation to social, ethical and perhaps even environmental tensions.

To support a transition from individualism, social relations theorists present an alternative to the liberal conception of autonomy or freedom. 'What makes autonomy possible' argues Jennifer Nedelsky 'is not separation, but relationship.'²⁹ From this perspective, the boundary metaphor³⁰ advanced in liberal property theory is misconceived. People are not 'islands unto themselves' and best function to achieve their

²⁵ Joseph William Singer and Jack M Beermann, 'The Social Origins of Property' (1993) 6 *Canadian Journal of Law and Jurisprudence* 217: 228. In *Introduction to Property* (2005) 2, Singer states this point in stronger language: 'Note well: Property concerns relations among people, not relations between people and things.' On this point, see further CB Macpherson, 'The Meaning of Property' and 'Liberal-Democracy and Property' in CB Macpherson (ed), *Property: Mainstream and Critical Positions* (1978) 1 and 199; CB Macpherson, 'Capitalism and the Changing Concept of Property' in Eugene Kamenka and RS Neal (eds), *Feudalism, Capitalism and Beyond* (1975) 104 and Eric T Freyfogle, *On Private Property: Finding Common Ground on the Ownership of Land* (2007) 157-181.

²⁶ Singer, above n 4, 13.

²⁷ Ibid.

²⁸ Ibid.

²⁹ Jennifer Nedelsky, 'Reconceiving Rights as Relationship' (1993) 1 *Review of Constitutional Studies* 1: 8.

³⁰ Nedelsky describes the boundary metaphor at *ibid* 7-8 as follows: 'Rights define boundaries others cannot cross and it is those boundaries enforced by law, that ensure individual freedom and autonomy.'

own goals in the context of 'social relations that support their own abilities to flourish'.³¹ Individuals achieve autonomy not in isolation from the community (both human and environmental) but by a mixture of dependence and independence.³² Thus dependence is a necessary prerequisite for 'free' individuals.³³ In this context, property rights are more accurately conceived of as rules that shape relationships. If the rules are fair and contain an appropriate acknowledgement of this interdependence, then they can go a long way toward attaining a desirable form of community. Thus, the 'human interactions to be governed [by law should not be] seen primarily in terms of the clashing of rights and interests, but in terms of the way patterns of relationship can develop and sustain both an enriching collective life and the scope for genuine individual autonomy.'³⁴ This is a fundamentally different perspective on personal freedom and well-being and one that respects autonomy and also the need to develop oneself in relationship to others.³⁵

This description of private property does not abolish autonomy or boundaries, it simply reconceptualises them.³⁶ Rather than understanding property rights as 'powers absolute within their spheres'³⁷ it interprets them as socially situated and contingent on their impact on others within the community. Property rights are set within a vast web of social relationships. Further, Singer argues that these relationships involve mutual obligation: 'Sometimes those obligations require nonowners to leave owners alone, but at times they require owners to exercise their property rights with due respect for the

³¹ Singer, above n 4, 131.

³² Jennifer Nedelsky, 'Reconceiving Autonomy: Sources, Thoughts and Possibilities' (1989) 1 *Yale Journal of Law and Feminism* 7.

³³ Eric T Freyfogle, *The Land We Share: Private Property and the Common Good* (2003) 206-207.

³⁴ Nedelsky, above n 29, 8.

³⁵ Laura S Underkuffler-Freund 'On Property: An Essay' (1990) 100 *Yale Law Journal* 127: 129.

³⁶ Singer, above n 4, 131.

³⁷ Duncan Kennedy, 'Toward a Historical Understanding of Legal Consciousness: The Case of Classical Legal Thought in America 1850-1940' (1980) *Research in Law and Sociology* 3.

interests of others, including nonowners.³⁸ Rights can conflict and must be defined (at least partially) with reference to the relationships they instantiate.

From this emerges the possibility of a public interest in private property.³⁹ Public interests arise because of 'the interconnections of lands and land uses' and also because 'private property rights are justified by their ability to promote the public good.'⁴⁰ The importance of this statement was brought to life in the United States case of *Palmer v Mulligan*⁴¹ described in chapter two.⁴² As noted, in this case a property dispute arose between the two parties when Mulligan constructed a dam that impeded Palmer's right to a natural flow of water. While the majority decision supported Mulligan, the court also affirmed the public's interest in water by re-stating the natural-flow rule. According to this rule, property owners could use surface water so long as it did not diminish its quality or quantity.⁴³ The existence of this rule represents the social nature of private property and allows the public interests to influence private rights. Further, the rule makes considerable social (and ecological) sense.⁴⁴

In summary, shifting the focus of private property from individualism to relationship has the potential to promote the common good of human beings. Lawmakers are more able to articulate laws for this purpose if they understand the kinds of relationships they want to foster or discourage. To this end, private property

³⁸ Singer, above n 4, 131.

³⁹ See Freyfogle, above n 33, 229-254 and Joseph William Singer, *The Edges of the Field: Lessons on the Obligations of Ownership* (200). This position can be contrasted with the 'private sphere' position on private property. Arguably the most prominent advocate was Robert Nozick, *Anarchy, State and Utopia* (1974). For a critique of this position see Robert Wolff, *Robert Nozick: Property, Justice, and the Minimal State* (1991). See also Duncan Kennedy, 'The Stages of Decline of the Public/Private Distinction' (1982) 130(6) *University of Pennsylvania Law Review* 1349.

⁴⁰ Freyfogle, above n 33, 230. Freyfogle justifies private property with reference to the public good, defined with reference to utilitarian philosophy, see 201-210. Perhaps his fullest statement on this justification is Eric T Freyfogle, *On Private Property: Finding Common Ground on the Ownership of Land* (2007).

⁴¹ *Palmer v Mulligan* 3 Cai. R. 307 (1805).

⁴² See pages 66-69.

⁴³ Freyfogle, above n 33, 230.

⁴⁴ *Ibid* 232.

can play a role in facilitating communal living. This facilitative role consists partly of 'rules requiring individuals to respect the legitimate interests of others in controlling certain portions of the physical world' and rules 'designed to ensure that the property system as a whole functions well, with tolerable efficiency and justice.'⁴⁵ Reflecting on this conception of private property, Paul Babie contends that the social relations view is not in conflict with the promotion of liberty. Instead he notes that they are two sides of the one coin:

Private property rights – choices – have their origin in, exist, operate, and are protected by law within a social context – relationship. Relationship means that private property rights overlap with the rights, property or otherwise, of others, owners and nonowners.⁴⁶

The social relations description of private property goes some way toward conforming with the principle of Earth community that is central to Earth Jurisprudence. It recognises that property rights flow and evolve according to social factors. Further, by conceiving property in terms of 'relationship' it situates property holders and the choices they make within a vast network of relationships. However, while this social aspect is a necessary condition of the ecocentric conception of private property, it is not sufficient. To be consistent with the Great Law and the purpose of law as articulated within Earth Jurisprudence, the concept of private property should also include broader ethical obligations toward the Earth community and the subject matter of a property relationship.

⁴⁵ Freyfogle, above n 33, 232.

⁴⁶ Babie, above n 19, 17.

IV. PRIVATE PROPERTY AND ETHICS

Alongside considerations pertaining to human social relationships are broader ethical considerations not necessarily captured by social relations theory. There are a host of factors that might reasonably be considered under this heading. Some of the more important considerations include duties toward future generations,⁴⁷ religious beliefs,⁴⁸ recognition of indigenous ownership norms⁴⁹ and individual virtue.⁵⁰ There is also the fundamental issue of recognising human ignorance and the precautionary principle.⁵¹ Further to these considerations, this section considers and seeks to add value to the discourse on nonreciprocal obligations and responsibilities being integral to the concept of private property. It argues that such duties exist in regard to human beings and also the broader Earth community. To support this extension of ethics, it also considers an example of responsibility in indigenous Australian land use practices.

1. *Obligation and Responsibility*

The description of private property presented in this chapter includes nonreciprocal obligations and responsibilities as being inherent to the concept. Because of our interconnected and mutually dependant relationship to the rest of nature, such considerations are central to the establishment of a mutually beneficial relationship with

⁴⁷ See Freyfogle, above n 15, 149-150. See also Eric T Freyfogle, *Justice and the Earth: Images of our Planetary Survival* (1993) 57-58 and 87-89 and Eric T Freyfogle, *Bounded People, Boundless Lands: Envisioning a New Land Ethic* (1998) 52 and 145.

⁴⁸ Freyfogle, above n 15, 150-151. See also Singer, above n 39 and Paul Babie, *Climate Change, Private Property, and the Children of Abraham* (2011).

⁴⁹ See Brian Edward Brown, *Native Americans and the Judicial Interpretation of Sacred Land* (1999).

⁵⁰ Freyfogle, above n 15, 152. For a classic statement on individual virtue see Henry David Thoreau, *Walden or Life in the Woods* (1995) [first published 1854]. For an interpretation of Thoreau's significance for private property see Samuel Alexander, 'Property beyond Growth: Toward a Politics of Voluntary Simplicity' in David Grinlinton and Prue Taylor, *Property Rights and Sustainability The Evolution of Property Rights to Meet Ecological Challenges* (2011).

⁵¹ Freyfogle, above n 15, 153-157.

the Earth community and for the realisation of the comprehensive common good. Further, by defining private property in a way that includes responsibilities, the ecological description attempts to balance the existing 'rights' focus of liberal property theory and avoid the piecemeal and incremental approach of limiting the liberty of property holders through external legislation.

This description of private property draws partially on the work of Canadian theorist David Lametti.⁵² Perhaps more than any other theorist working within analytic jurisprudence,⁵³ Lametti has most fully developed our understanding of private property's social aspect. Lametti criticises the liberal theory of private property on the basis that it fails to acknowledge the specific and general obligations and responsibilities that are integral to the concept. He describes the rights based theory of private property as purporting to be justified 'in terms of rights' and that these rights are anchored in the liberal goal of maximising personal autonomy.⁵⁴ That is: 'Property rights protect interests which ultimately foster the ability of individuals to make meaningful choices in their lives.'⁵⁵ While Lametti recognises that these rights are a necessary part of the description of private property he argues that they are 'insufficient on their own.' He contends:

A rights based discourse does not capture the totality of the property picture. In particular, it does not adequately describe those aspects of the institution whose presence is not explainable or understandable in terms of rights. More specifically, the concept of private property contains not only rights but also specific duties and obligations which cannot be adequately explained in terms of correlative rights and duties between and among individuals.⁵⁶

⁵² Lametti, above n 13. See also David Lametti, 'Property and (Perhaps) Justice. A Review Article of JW Harris, Property and Justice and James E Penner, 'The Idea of Property in Law' (1998) 43 *McGill Law Journal* 663 and David Lametti, 'The Objects of Virtue' in G Alexander and E Peñalver (eds), *Property and Community* (2010).

⁵³ Analytic jurisprudence refers to an approach to the philosophy of law which emphasises the analysis of concepts e.g. 'law', 'right' and 'property'. Lametti expressly works within the tradition of HLA Hart and Joseph Raz. See further Brian H Bix, *A Dictionary of Legal Theory* (2004) 6.

⁵⁴ Lametti, above n 52 (1998), 669.

⁵⁵ *Ibid.*

⁵⁶ *Ibid* 669-670.

Lametti uses 'deon-telos' to capture these understated or neglected elements of property in the term *deon-telos*. The deon-telos is the 'deontology of private property'.⁵⁷ The term 'deon' comes from the Greek, meaning 'duty' or 'that which binds' and refers to specific obligations and responsibilities which derive from a variety of undefined sources. Further, the term 'telos' also comes from the Greek language and means 'goal' or 'endpoint'. Consistent with the purposive description of Human Law in chapter four, the term refers to the inclusion of societal goals and values in the discourse of property.⁵⁸ For Lametti, recognising the deon-telos of private property provides a basis to explore the larger ethical dimensions of private property. On this point he comments:

Those aspects of private property captured by the rubric of the deon-telos are *an intrinsic* component of the concept of private property itself; any discussion of private property, whether in theory or practice is incomplete without them. Rights-based theories not only fail to capture this richness, they also lack the ability to discern a larger coherence among all these aspects of the institution. Without these elements, the explanatory force of any descriptive project is weakened.⁵⁹

A further implication of the deon-telos of private property is that the institution cannot be justified with reference to the attainment of liberal goals alone.⁶⁰ Indeed, while liberal theories of private property regard obligations and responsibilities as secondary considerations, for Lametti they play a central role in justifying private property with reference to the common good. He argues:

As a result, rights-based theories are inadequate to explain private property, missing not only aspects of the institution that serve important societal values and goals, or what one might call

⁵⁷ Lametti, above n 52 (1998), 670.

⁵⁸ Ibid. For Lametti the teleology of private property is in part utilitarian. Lametti does not seek to describe exhaustively the goals of a property institution. He writes: '[A] particular goal may be the simple good administration of society, or may be more substantively concerned with the fostering of certain individual and collective goods or virtues.' For private property to be consistent with the Great Law and additional goal would need to be the promotion of the common good for the comprehensive Earth community.

⁵⁹ Lametti, above n 52 (1998), 671. Emphasis mine.

⁶⁰ This argument is made in detail in David Lametti, *The Deon-Telos of Private Property* (PhD Thesis, Oxford University, 1999). Even rights-based theorists have pointed out the shortcomings of a purely rights-based arguments, see Waldron, above n 11, 3-5 and 127-32.

'goal-based' justifications, but also the aspects that one might call 'duty-based' justifications, requiring certain types of conduct with respect to specific resources.⁶¹

Lametti's critique of private property and his advocacy for an integral ethical component accords with elements of the ecocentric description of private property advocated in this chapter. However, because Lametti was attempting to reconfigure the normative understanding of private property, his analysis has not sought to articulate the specific content of the deon-telos or other obligations and responsibilities that are integral to the concept of private property.⁶² Further, Lametti has not sought to argue if/how the concept of deon-telos pertains to duties outside of the human community.

A step toward recognising obligations and responsibilities for private property has been taken in German constitutional law. Article 14(2) of the Constitution states explicitly: 'Property creates responsibilities. Its use shall at the same time serve the common good.'⁶³ This Article assigns to the legislature the task of defining property in more detail, however it prevents legislators from creating a concept of private property

⁶¹ Lametti, above n 52 (1998) 672.

⁶² For one attempt to describe the deon-telos see Paul Babie, 'Private Property, the Environment and Christianity' (2002) 15 *Pacifica: Australasian Theological Studies* 307. Other attempts outside of this framework can be noted in Joseph Guth, 'Law for the Ecological Age' (2008) 9 *Vermont Journal of Environmental Law* 431; John Meyer, 'The Concept of Private Property and the Limits of the Environmental Imagination' (2009) 37(1) *Political Theory* 99; Tony Arnold, 'The Reconstitution of Property: Property as a Web of Interests' (2002) 26 *Harvard Environmental Law Review* 281; David Hunter, 'An Ecological Perspective on Property' (1988) 12 *Harvard Environmental Law Review* 311; Peter Byrne, 'Green Property' (1990) 7 *Constitutional Commentary* 239; Joseph Sax, 'Property Rights and the Economy of Nature' (1993) 45 *Stanford Law Review* 201; Terry Frazier, 'The Green Alternative to Classical Liberal Property Theory' (1995) 20 *Vermont Law Review* 299; Terry Frazier, 'Protecting Ecological Integrity within the Balancing Function of Property Law' (1998) 28(1) *Environmental Law* 53; Lynda Butler, 'The Pathology of Property Norms: Living Within Nature's Boundaries' (2000) 73 *Southern California Law Review* 927 and Carl Circo, 'Does Sustainability Require a New Theory of Property Rights?' (2009) 58(1) *University of Kansas Law Review* 91.

⁶³ Murray Raff, *Private Property and Environmental Responsibility: A Comparative Study of German Real Property Law* (2003) 165. Raff notes that this section was derived from the Article 153 of the *Weimar Constitution* of 1919. He notes also that the German liberal conception of private property has a long history of limitation on the grounds of social responsibility and Natural Law. See further Murray Raff, 'Environmental Obligations and the Western Liberal Property Concept' (1998) 22 *Melbourne University Law Review* 657. See also R Dozer, *Property and Environment: The Social Obligation Inherent to Ownership – A Study of German Constitutional Setting* (1976).

devoid of obligation.⁶⁴ While this provision has been limited to duties toward human beings and the common human good⁶⁵, it has also been interpreted to include environmental responsibility.⁶⁶

The most relevant principle in the interpretation of article 14(2) is *Situationsgebundenheit* or 'environmental context.' Consistent with the social relations theory of private property, the German Federal Constitutional Court considers property holders to be living within and dependant on human society. As a result, property rights must be determined in a social and environmental context.⁶⁷ To determine whether a particular use of property has contravened this standard, the Court will 'judge the sphere of protected property by considering what the reasonable thoughts would be of the rational or understanding but nonetheless economically minded citizen, when contemplating potential uses of the particular property in its social and environmental context in the absence of legal regulation.'⁶⁸

One important application of Article 14(2) was the German High Court (*Bundesgerichtshof*) decision in the *Cathedral of Beech Trees Case*.⁶⁹ Briefly, the plaintiff had private property rights over a farm, upon which were situated centuries old beech trees (popularly known as the Cathedral of Beeches). The trees were provided legislative protection in 1925 and the property owner applied several times for permission to cut down the trees. When this was denied, he sought compensation, arguing that their preservation amounted to an expropriation of his property. In response, the German

⁶⁴ Raff, above n 63 (1998) 676.

⁶⁵ See *Bundesgerichtshof* [German Constitutional Court], *Economic Planning Case* (1954) 4 BVerfGE 7, [15]-[16] where section 14(2) of the Constitution was interpreted to highlight the importance of 'social connectedness and social bonding...without encroaching upon the intrinsic value of the person.'

⁶⁶ Raff, above n 63 (2003), 172-179.

⁶⁷ Raff, above n 63 (1998), 677.

⁶⁸ *Ibid* 678. See also discussion in Dozer, above n 63.

⁶⁹ *Bundesgerichtshof in Zivilsachen* [Federal High Court], *Cathedral of Beech Trees Case* (1957) DVBI 861, (1957) DÖV 669.

High Court found that the natural features of the land imposed a social obligation on the owner to preserve the trees for the community. The imposition of this obligation did not amount to an expropriation and instead was consistent with what a reasonable and economically oriented owner of the land would recognise. The Court argued further that legislation or administrative action that imposes an obligation on a landowner is a concrete expression of social obligation, which encumbers a property right in view of its context. The Court reasoned: 'The limit lies at the point where the conservation merits of the property would appear in the concrete situation to the owner, as a rational economically thinking person, when acquiring it as an economic asset with economic intentions or pursuing such intentions in relation to it.'⁷⁰

Subsequent decisions of the German Courts have limited the application of Article 14(2) to obligations and responsibilities to other human beings. Recently, the German Federal Administrative Court held: 'The law cannot provide for the health of ecosystems per se, but only in so far as required to protect the rights of affected people.'⁷¹ This falls short of the ecocentric description of private property offered in this chapter, which explicitly provides for nonreciprocal obligations and responsibilities to the Earth community. The argument for this extension is considered with reference first to the source of human responsibility to nature and also in regard to the object of responsibility.

⁷⁰ *Bundesgerichtshof in Zivilsachen* [Federal High Court], *Cathedral of Beech Trees Case* (1957) DVBI 861, (1957) DÖV 669 at [861]-[862]. The test of a 'reasonable economically minded person' was confirmed in *Bundesgerichtshof in Zivilsachen* [Federal High Court], *Gravel Extraction Case* (1984) 14 *Agrarrecht* 281.

⁷¹ Quoted in Prue Taylor, 'The Imperative of Responsibility in a Legal Context: Reconciling Responsibilities and Rights' in J Ronald Engel, Laura Westra, Klaus Bosselmann (eds), *Democracy, Ecological Integrity and International Law* (2010) 204. See also Klaus Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (2008) 138-141.

2. Ethics and Earth Community

The reality of one planetary ecosystem and how to live within its boundaries can only be grasped if we learn to think globally, holistically and responsibly.⁷²

In Earth Jurisprudence, the motivation for expanding the concept of private property to include nonreciprocal obligations toward non-human nature is based first in response to the great environmental harm currently being facilitated by the rights-based concept of private property. This harm is heightened with regard to increased technological capacity and the removal of inherent Natural Law protections for property.⁷³ Thus, while human beings have become a 'macrophase power' the dominant description of private property only promotes a 'microphase sense of responsibility and ethical judgment.'⁷⁴ From this perspective a persuasive argument can be made that the role of private property in facilitating the present environmental crisis provides a rational basis for humans to agree to expand restrictions upon the exercise of freedom and recognise duties toward the environment. Commenting on this extension, Berry argues:

[O]ur concern for the human community can only be fulfilled by a concern for the integrity of the natural world. The planet cannot support its human presence unless there is a reciprocal human support for the life systems of the planet. This more comprehensive perspective we might identify as macrophase ethics. This is something far beyond our ordinary ethical judgments involving individual actions, the actions of communities, or even of nations. We are presently concerned with ethical judgments on an entirely different order of magnitude. Indeed, the human community has never previously been forced to ethical judgments on this scale because we never before had the capacity for deleterious actions with such consequences.⁷⁵

Importantly, the argument for extending human ethics relies on rationality and human decision-making. It does not seek to derive a normative statement simply on the basis of

⁷² Bosselmann, above n 71, ix.

⁷³ Coyle and Morrow comment in above n 1, 61 that the concept of private property articulated under positive law is not 'inherently coupled with environmentally-preserving' practices and 'a societies institutions can develop in ways which place no special emphasis on the goal of environmental protection or development.'

⁷⁴ Thomas Berry, *The Great Work* (1999) 101.

⁷⁵ *Ibid.* See also Brian Swimme, *The Hidden Heart of the Cosmos* (1996) 110-113.

an observable fact.⁷⁶ German philosopher Hans Jonas makes a similar argument, holding that the 'ought' or 'obligation to do' arises as a form of self-control to consciously exercised power.⁷⁷ He notes: 'In sum: that which binds (free) will and obligation together in the first place, power, is precisely that which today moves responsibility in[to] the centre of morality.'⁷⁸

The argument for recognising nonreciprocal human duties toward nature has traditionally been hampered by the limited criteria established in ethical discourse for identifying objects of responsibility. Arguably the most important contributor to this discourse was Immanuel Kant. Kant's framework is expressly anthropocentric and limits the object of responsibility of duties to human beings. This is evidenced in the following passage:

The fact that man can have the idea 'I' raises him infinitely above all other beings living on earth. By this he is a *person*...that is, a being altogether different in rank and dignity from things such as irrational animals, which we can dispose of as we please. So far as animals are concerned, we have no direct duties. Animals are not self-conscious and are merely a means to an end. That end is man...our duties toward animals are merely indirect duties toward humanity.⁷⁹

This statement is elaborated in the *Groundwork of the Metaphysic(s) of Morals*, where Kant argues that only human beings may be the object of morality since we alone have dignity and the potential for moral reasoning.⁸⁰ Further, Kant argues against the destruction of natural beauty and sentient animals on the basis that such action causes

⁷⁶ This is the 'naturalistic fallacy' described on page 150-151. For a critique of is/ought reasoning see Peter Singer, *The Expanding Circle: Ethics and Sociobiology* (1983).

⁷⁷ Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (1984). Jonas argues that the power of human beings to cause harm through technology provides a rational basis for a restriction of human freedom.

⁷⁸ Ibid 130.

⁷⁹ Immanuel Kant, *Anthropology from a Pragmatic Point of View* (1974) [first published 1798] 124. See also Immanuel Kant, *Lectures on Ethics* (1963) 239.

⁸⁰ Immanuel Kant, *Groundwork of the Metaphysic(s) of Morals* (1998) [first published 1785] 45. For Kant, moral value and dignity is linked to the categorical imperative. Kant defines the categorical imperative as an unconditional moral obligation that is binding in all circumstances and is not dependent on a person's inclination or purpose.

harm to the moral character of persons – the *Verrohung* argument. From this basis, he contends that anybody who seeks to import moral obligations with regard to non-humans commits a fallacy.⁸¹

Kant's ethical framework has been subject to robust critique in environmental philosophy. Jonas contends that Kant's analysis was only designed to facilitate interpersonal human interactions and is not sufficient to guide current human interactions with nature.⁸² He argues that all 'previous ethics...had these interconnected tacit premises in common: that the human condition, determined by the nature of man and the nature of things, was given once and for all; that the human good on that basis was readily determinable and that the range of human action and therefore responsibility was narrowly circumscribed.'⁸³ This does not mean that interpersonal ethics are wrong, but rather that they were 'not designed to cope with the current and prospective scope of human agency.'⁸⁴ Klaus Bosselmann argues further that current discourse ethics are severely limited by their own anthropocentric basis. He notes that if the 'tradition behind the rational discourse goes unquestioned we will not be able to move beyond the Kantian and contractualist framework.'⁸⁵ From an ecocentric perspective:

the limitation of moral theory to agents is unacceptable; rather it is enough that a being receives recognition as a moral *subject*. That such beings may not have the capacity to communicate (directly) or reciprocate moral favours should not matter.⁸⁶

⁸¹ Konrad Ott, 'A Modest Proposal about How to Proceed in Order to Solve the Problem of Inherent Moral Value in Nature' in Laura Westra, Klaus Bosselmann and Richard Westra (eds), *Reconciling Human Existence with Ecological Integrity* (2008) 47.

⁸² Jonas, above n 77, 1.

⁸³ *Ibid.* Despite this critique, at 136-137 Jonas limits his moral theory to life and entities capable of reciprocity and moral reasoning. He also maintains Kant's argument that human beings are moral objects, but presents a new 'metaphysical' conception of man, whose very being requires care and concern beyond human needs.

⁸⁴ David Levy, *Hans Jonas: The Integrity of Thinking* (2002) 84

⁸⁵ Bosselmann, above n 71, 96.

⁸⁶ *Ibid.* At 196-205 Bosselmann advocates 'ecological citizenship'. This concept is expanded further in Klaus Bosselmann, 'Earth Democracy: Institutionalizing Sustainability and Ecological Integrity' in J Ronald Engel, Laura Westra and Klaus Bosselmann (eds), *Democracy, Ecological Integrity and International Law* (2010) 105: 'Ecological citizenship poses a new relationship between humans and the natural world that stresses non-

Consistent with these arguments, there are examples in positive law where non-human nature has been recognised as an object of human ethics. For example, the South Australian *Natural Resources Management Act 2004* states in section 7(1)(a) that the act 'recognises and protects the intrinsic values of natural resources.'⁸⁷ At the international level, the IUCN *Draft International Covenant on Environment and Development*⁸⁸ recognises a 'duty of all to respect and care for the environment and promote sustainable development.'⁸⁹ Further, Article 2 advocates for a duty of care toward the environment and states explicitly that '[n]ature as a whole warrants respect.'⁹⁰ These sentiments are reproduced eloquently in the preamble of the *Earth Charter*, which advocates an ethic of universal responsibility:

[W]e must decide to live with a sense of universal responsibility, identifying ourselves with the whole Earth community as well as our local communities. We are at once citizens of different nations and of one world in which the local and global are linked. Everyone shares responsibility for the present and future well-being of the human family and the larger living world. The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature.⁹¹

Environmental philosophers have made many unique attempts to transcend the Kantian framework and recognise nature as an object of human responsibility.⁹² Earth

reciprocal obligations and responsibilities. The adoption of an ethical standpoint that embraces ecocentrism involves a shift in social and political thought to a new politics of responsibility. The new politics of responsibility will shape relations between people living today and their common relationship to the future.'

⁸⁷ See *Natural Resources Management Act (SA) 2004* <<http://www.legislation.sa.gov.au/lz/c/a/natural%20resources%20management%20act%202004/current/2004.34.un.pdf>>. For other examples of legislation from around the world that recognise the intrinsic value of nature see UKELA, 'Wild Law: Is There Any Evidence of Earth Jurisprudence in Existing Law and Practice?' (2009) <<http://www.ukela.org/content/page/1090/Wild%20Law%20Research%20Report%20published%20March%202009.pdf>>.

⁸⁸ See IUCN, *Draft International Covenant on Environment and Development* (1995) <http://www.i-c-e-l.org/english/EPLP31EN_rev2.pdf>.

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*

⁹¹ See *Earth Charter* (2000) <<http://www.earthcharterinaction.org/content/pages/Read-the-Charter.html>>.

⁹² See in particular Jonas, above n 77, 136-137; Nicholas Agar, *Life's Intrinsic Value* (2001); Lawrence E. Johnson, *A Morally Deep World: An Essay on Moral Significance and Environmental Ethics* (1991); Paul Taylor, *Respect for Nature: A Theory of Environmental Ethics* (1986); Laura Westra, *Living in Integrity: A Global Ethic to*

Jurisprudence advocates for the recognition of the concept of Earth community. From this perspective, limiting obligations and responsibilities to human beings is no longer defensible in light of scientific developments and the growing awareness of the interconnectedness of all nature.⁹³ This insight requires human beings to consider not only their own interests, but potentially the well-being and integrity⁹⁴ of all entities affected by their decisions. In support of this more comprehensive ethical perspective, Albert Einstein writes:

A human being is a part of a whole, called by us 'universe', a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest...a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.⁹⁵

In contrast to Kantian ethics, this approach is holistic and inclusive. Rather than starting with a class of beings that are assumed to be moral subjects and working outward, Earth Jurisprudence presumes membership to the moral community. This shifts the burden of persuasion onto detractors who are then required to advance arguments as to why an entity should be excluded.⁹⁶ Importantly, this reasoning does not deny the moral status of human beings or claim that all forms of non-human nature have moral equivalence with humanity.⁹⁷ Instead, it simply asserts that all components of the Earth community

Restore a Fragmented Earth (1998) and Holmes Rolston III, *Environmental Ethics: Duties to and Values in the Natural World* (1988).

⁹³ A similar argument is made in Nicholas Low and B Gleeson, *Justice, Society and Nature* (1998) 155.

⁹⁴ For an analysis of ecological integrity see Laura Westra, 'Ecological Integrity' (2005) <<http://www.globalecointegrity.net/pdf/Westra%20on%20Ecological%20Integrity.pdf>>. See also James Karr, 'Protecting Ecological Integrity: An Urgent Societal Goal' (1993) 18(1) *Yale Journal International Law* 297.

⁹⁵ Albert Einstein quoted in Klaus Bosselmann, 'The Way Forward: Governance for Ecological Integrity' in Laura Westra, Klaus Bosselmann and Richard Westra, *Reconciling Human Existence with Ecological Integrity* (2008) 319.

⁹⁶ Ott, above n 81, 45. Ott describes this approach as the 'route from the outside.' For an example of its application see Thomas Birch, 'Moral Considerability and Universal Consideration' (1993) 15(4) *Environmental Ethics* 313.

⁹⁷ Low and Gleeson, above n 93, 156-157. To assist with decision-making, the authors consider three qualifications to their argument for extending human ethics to include nature. They argue that life has moral

have value and takes this comprehensive whole as the starting point for human ethics.

Berry argues further:

The present urgency is to begin thinking within the context of the whole planet, the integral Earth community with all its human and other-than-human components. When we discuss ethics we must understand it to mean the principles and values that govern that comprehensive community. Human ethics concerns the manner whereby we give expression at the rational level to the ordering principles of that larger community.

The ecological community is not subordinate to the human community. Nor is the ecological imperative derivative from human ethics. Rather, our human ethics are derivative from the ecological imperative. The basic ethical norm is the well-being of the comprehensive community and the attainment of human well-being within that community.⁹⁸

This comprehensive perspective has the capacity to change radically the way we view the rights and duties that are associated with private property. While property rights would still be limited by the rights of other human beings, they ought also be limited by the responsibilities we have to the Earth community. Within this context, the comprehensive common good determines the scope of property rights and not the other way round as promoted by liberal rights-based theories of property.⁹⁹ This changes the role of private property from being a fundamental cause of the present environmental crisis, to an agent for its mitigation. Prue Taylor comments:

At best, legal rights (such as property rights) could then become a positive tool for ecological protection and restoration when responsible use is adequately defined. At worst, the legal system is free to move beyond reconciliation of conflicting utilitarian human interests to sanction irresponsible use.¹⁰⁰

precedence over non-life; that individualised life take moral precedence over life forms that exist in communities and that humans take precedence over all other life forms. See also Ott, above n 81, 48.

⁹⁸ Berry, above n 74, 105.

⁹⁹ See also Eric T Freyfogle, 'Property and Liberty' (2007) *Illinois Public Law and Legal Theory Research Papers Series* <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1024574>. Freyfogle argues that liberty is a product of a private property regime but it ought not be regarded as the starting point for crafting such a regime. Instead, he argues that lawmakers should start by considering the various ways that private property can foster the common good. Care for nature is integral to this, but is aligned to human utility.

¹⁰⁰ Taylor, above n 71, 207.

To assist western society to assimilate the description of private property as including nonreciprocal obligations and responsibilities to non-human nature it is useful to consider an example of this recognition in practice. While unique, one of the best examples of this can be seen in many indigenous cultures in Australia. The purpose of considering this example is not to appropriate¹⁰¹ or romanticise¹⁰² indigenous land use practices. Rather, this example reflects upon the ideas and practices of the many cultures that inhabited Australia prior to European settlement and lived sustainably on this continent for over 40,000 years.¹⁰³

3. Responsibility in Practice

Today, laws enacted with reference to the rights-based theory of private property govern human interactions with the Australian landscape. This was not always the case. Human interaction with these same plains, rivers, mountains and deserts was once entirely governed by the cultural norms of approximately 500 distinct peoples.¹⁰⁴ In order to understand how contemporary society can shift toward the establishment of a mutually beneficial relationship with the Earth, Berry argues that we should reflect upon

¹⁰¹ See Irene Watson, 'Buried Alive' (2002) 13(3) *Law and Critique* 253.

¹⁰² In the Australian context Tim Flannery has demonstrated in *The Future Eaters* (1994) that environmental change in Australia has not been conducted by non-indigenous peoples alone. A related issue is the racialisation of indigenous knowledge as primitive or noble. For example in his study of representations of Native American peoples, Shepard Krech argues that both European and Native Americans mythologise Indigenous relationships to land. See Shepard Krech, *The Ecological Indian: Myth and History* (1999). Commenting on this issue Jessica Weir argues that in promoting the idea of the noble savage 'important information about how to live in the world persists in being confounded by binary thinking as a time when life-sustaining ecological ethics are really needed.' See Jessica Weir, *Murray River Country: An Ecological Dialogue with Traditional Owners* (2009) 23.

¹⁰³ For a comparison of Aldo Leopold's 'Land Ethic' with indigenous land use practices see Deborah Bird Rose, 'Exploring an Aboriginal Land Ethic' (1988) 2 *Meanjin* 379.

¹⁰⁴ See Aboriginal Australia Map <<http://www.aiatsis.gov.au/asp/map.html>>.

the practices of indigenous traditions.¹⁰⁵ Indeed, he contends that 'as the years pass it becomes ever more clear that dialogue with native peoples...throughout the world is urgently needed to provide the human community with models of a more integral human presence on Earth.'¹⁰⁶ With specific regard to private property, Nicole Graham argues:

Indigenous laws and models of people-place relations...constitute an obvious and sensible source of reflection on modern property relations because in addition to containing concepts of responsibility, Indigenous land laws are demonstrably successful regulatory systems over a long period of time.¹⁰⁷

There are many reasons for this success, some of which relate to geography itself, while others relate to the worldview or paradigm that supports indigenous law.¹⁰⁸ While not seeking to be broadly representative¹⁰⁹, one example of indigenous understanding of land comes from Tanganekald-Meintangk¹¹⁰ elder Irene Watson:

To own the land is a remote idea. The indigenous relationship to ruwe, is more complex. In western capitalist thought, ruwe, becomes known as property, a consumable which can be traded and sold. We live as part of the natural world; we are it also. The natural world is our mirror. We take no more than necessary to sustain life; we nurture ruwe as we do our self, for we are one. Western's live on the land taking more than needed, depleting ruwe and depleting self. So self can be no more tomorrow. Westerners are separate and alien to ruwe and are unable to understand how it is we communicate with the natural world. We are talking to relations and our family, for we are one.¹¹¹

¹⁰⁵ Berry, above n 74, 176. This analysis is one part of 'the fourfold wisdom'. Alongside indigenous traditions Berry includes the wisdom of women, the wisdom of the classical traditions and the wisdom of science.

¹⁰⁶ Ibid 177. See also Mary-Evelyn Tucker, 'Editors Afterword: An Intellectual Biography of Thomas Berry' in Thomas Berry, *Evening Thoughts: Reflections on Earth as Sacred Community* (2006) 161-162.

¹⁰⁷ Nicole Graham, *Landscape: Property, Environment, Law* (2011) 197-198.

¹⁰⁸ Ibid 198.

¹⁰⁹ On the issue of representation see Irene Watson, 'Power of the Muldarbi and the Road to its Demise' (1998) 11 *Australian Feminist Law Journal* 28.

¹¹⁰ The Tanganekald-Meintangk peoples are the custodians of the place now known at the Coorong and the lower South east of South Australia.

¹¹¹ Irene Watson 'Kaldowinyeri-Munaintaya-In the Beginning' (2000) 4 *The Flinders Journal of Law Reform* 3: 6. The term 'ruwe' means land.

In this passage, one notes the disintegration of the anthropocentric separation between people and place. This worldview is not specific to the Tanganekald-Meintangk peoples and is articulated in similar language by many other indigenous peoples and nations.¹¹² For Paddy Roe, lawman and guardian of the Lurujarri nation in Western Australia, ownership of land and self are inseparable.¹¹³ He argues that western ways of understanding nature are 'killing his country' which also involves 'killing the people.'¹¹⁴ For Roe and Watson, ownership is understood in terms of mutual relationship and responsibility. This can be contrasted to the rights-based theory of private property, which is an individual right, geared toward preference satisfaction.¹¹⁵ Watson writes:

The earth is our mother: this is a relationship that is based on caring and sharing. From birth we learn the sacredness and the connectedness of all things to the creation. Every aspect of the natural world is honoured and respected. And from an early age Nungas learn to tread lightly on the Earth. All life forms are related. The law speaks to principles. One is respect. It is a respect for all of creation, not just humanity but the total ecological environment: trees, birds, animals the entire wholeness and oneness of creation.¹¹⁶

Watson contends further that indigenous relationship to the land contains 'both obligations and rights.'¹¹⁷ The relationship to land is both as a traditional owner and a custodian. Both exist at the same time. Further, obligations are place specific and complex. Watson notes:

¹¹² See Karl-Erik Sveiby and Tex Skuthorpe, *Treading Lightly: The Hidden Wisdom of the World's Oldest People* (2006) and Peter Knudtson and David Suzuki, *Wisdom of the Elders: Native and Scientific Ways of Knowing about Nature* (2006).

¹¹³ Jim Sinatra and Phin Murphy, *Listen to People Listen to the Land* (1999) 19. Roe teaches younger members of his nation that: 'You are the land, and the land is you. There's no difference...we have separated from it because we are told it is separate...we have people and everything else. So people got separated from nature and don't see themselves as part of it anymore. But we are part of it. Like the fish, like the birds, like the rocks, we all have our function. We put birds into a box - they are birds. We put trees into a box - they are trees. But they are one and we part of it. We all make up the living country.'

¹¹⁴ *Ibid* 11.

¹¹⁵ Watson argues: 'Our relationship to land is irreconcilable to the Western legal property law system, as it is to fit a sphere on top of a pyramid.' See Watson, above n 101, 257.

¹¹⁶ Watson, above n 101, 38. The term 'Nunga' refers to an Aboriginal person in the southern areas of South Australia. Watson notes at page 5 footnote 13 that she 'uses the term Nunga broadly in the same sense that I would use the term Aboriginal.'

¹¹⁷ *Ibid* 46.

Ownership is not exclusive. And it does not define the owned object as a commodity: instead it defines it as the concern of a limited group of people who stand in a particular relationship to the owner and whose various responsibilities depend on that relationship. There are both managers and bosses, for example. And each has a different responsibility or right. The obligations I speak of here are to the law-song of place handed on to the song holder from the ancestors. For example, for the ancestor Tjirbruki, the obligation was not to kill the female emu in the hunt, for the preservation of the species.¹¹⁸

Central to Watson's comments is that indigenous knowledge of place and ideas of ownership are learned and experienced within specific places over long periods of time. The knowledge of place that is central to indigenous law 'comes through the living of it.'¹¹⁹ This point must be appreciated in any attempt to learn lessons from indigenous ideas of ownership.¹²⁰

While many indigenous communities around Australia continue to hold and practice their law, it is relevant to note that Australian property and native title law has not accommodated their worldview.¹²¹ For example, in the 1999 Federal Court decision, *The Members of the Yorta Yorta Aboriginal Community v State of Victoria and Others*¹²² ruled that the relation between the Yorta Yorta people and their land was extinguished at colonisation. On this point, Justice Olney argued that it was impossible to 're-establish' a connection with the land once it was interrupted.¹²³ Further to this decision the Federal Court ruling in *Western Australia v Ward*¹²⁴ sought to adapt indigenous descriptions of

¹¹⁸ Watson, above n 101, 46-47.

¹¹⁹ Ibid 255.

¹²⁰ The idea of learning about place and local ecosystems is central to bioregional philosophy. See for example, Kirkpatrick Sale, *Dwellers in the Land: The Bioregional Vision* (1991).

¹²¹ See further Peter Burdon, 'Native Title and the Clash of Civilization' (2008) 104 *Chain Reaction Magazine* 34.

¹²² *The Members of the Yorta Yorta Aboriginal Community v State of Victoria and Others* (1998) 1606 FCA 130. This decision was upheld in the 2002 High Court decision, *The Members of the Yorta Yorta Aboriginal Community v State of Victoria and Others* (2002) 214 CLR 422.

¹²³ *The Members of the Yorta Yorta Aboriginal Community v State of Victoria and Others* (1998) 1606 FCA 130 at [129]. At [121] the Justice Olney notes: 'Notwithstanding the genuine efforts of members of the claimant group to revive the lost culture of their ancestors, native title rights and interests once lost are not capable of revival.'

¹²⁴ *Western Australia v Ward* [2000] FCA 191.

ownership into the Hohfeldian bundle of rights framework. The majority of decision Beaumont and von Doussa JJ conceived indigenous ownership as a 'bundle of rights'¹²⁵ that could be partially extinguished by removing some of the rights that make up the bundle. The Court held:

In our opinion the rights and interests of indigenous people which together make up native title are aptly described as a "bundle of rights". It is possible for some only of those rights to be extinguished by the creation of inconsistent rights by laws or executive acts. Where this happens "partial extinguishment" occurs. In a particular case a bundle of rights that was so extensive as to be in the nature of a proprietary interest, by partial extinguishment may be so reduced that the rights which remain no longer have that character. Further, it is possible that a succession of different grants may have a cumulative effect, such that native title rights and interests that survived one grant that brought about partial extinguishment, may later be extinguished by another grant.¹²⁶

This translation of indigenous ownership in land has forced traditional owners such as Watson to operate outside of the formal native title system, arguing that native title is a 'further erosion and subversion of Nunga identities.'¹²⁷ She contends further that 'native title does not help us care for country'¹²⁸ and continues to observe the law of her people.¹²⁹ This discussion is of clear relevance for those who adopt an ecocentric

¹²⁵ This issue framing was rejected by the trial judge in *Western Australia v Ward* (1998) 159 ALR 483. Citing law from Canada, his Honour held at [508]: 'Native title at common law is a communal 'right to land' arising from the significant connection of an indigenous society with land under its customs and culture. It is not a mere 'bundle of rights': see *Delgamuukw v British Columbia* [1997] 153 DLR (4th) 193 per Lamer CJ at [240-1].' Interestingly, this interpretation was also rejected in the High Court decision *R v Toohey; Ex parte Meneling Station Pty Ltd* [1982] HCA 69. Here Brennan J argued: 'Aboriginal ownership is primarily a spiritual affair rather than a bundle of rights'. While not overturned the construction of native title as a 'bundle of rights' was further criticised in the High Court decision *Western Australia and o'rs v Ward and o'rs* [2002] HCA 28. Gleeson CJ, Gaudron, Gummow and Hayne JJ noted at [14]: 'The difficulty of expressing a relationship between a community or group of Aboriginal people and the land in terms of rights and interests is evident. Yet that is required by the Native Title Act. The spiritual or religious is translated into the legal. This requires the fragmentation of an integrated view of the ordering of affairs into rights and interests which are considered apart from the duties and obligations which go with them.' For further comment see Aboriginal and Torres Strait Social Justice Commissioner, *Native Title Report* (2002) <http://www.hreoc.gov.au/social_justice/nt_report/ntreport02/chapter1.html>.

¹²⁶ Ward, above n 124, 109.

¹²⁷ Watson, above n 101, 260.

¹²⁸ Ibid.

¹²⁹ Other examples include Deborah Bird Rose, *Indigenous kinship with the Natural World* (2003) <<http://www.environment.nsw.gov.au/resources/cultureheritage/IndigenousKinship.pdf>> and Deborah Bird Rose, *Sharing Kinship With Nature: How Reconciliation is Transforming the NSW National Parks and Wildlife Service* (2003) <<http://www.environment.nsw.gov.au/resources/cultureheritage/SharingKinship.pdf>>. See

worldview and regard private property as including inherent obligations and responsibility. Ultimately, the formal legal recognition of both ecocentric and indigenous descriptions of ownership are related and there is the potential for great benefit from a dialogue and shared learning from both perspectives.¹³⁰ However, until both are recognised, we would do well to follow the advice of indigenous elder Dennis Walker, speaking at a ceremony to celebrate the Aboriginal Tent Embassy in 1995:

The real land and law business has not been done. And what I would like to point out to you is that in terms of our land and our law it needs to be understood, as my mother said, we are custodians of this land. And when people say 'oh we lost this land or we lost that land,' we didn't lose it anywhere. The land is still here and we still have got the responsibility of being custodians of that land. The problem is that we haven't been given the power in the non-Aboriginal legal system to fulfil that custodial right. Until our Elders in Council decide on these matters through their customary laws and until that consent, which Captain Cook was supposed to get, is properly given, then we still live under bad laws.¹³¹

The next section considers how private property can shift to pay greater attention to the 'thing' that is the subject matter of a property relationship. While the rights-based narrative of private property describes human conquest over nature, this section argues that nature also plays a role in influencing property choices. Further, it argues that private property ought to respond to and be limited by the item of private property. This analysis is supported by an imaginary journey across landscape. We will also consider emerging discourse in property theory, case law from the United States and agrarian land use practices.

also John Mackenzie, Margaret Ayre, Peter Oliver, Poh Ling Tan, Sue Jackson and Wendy Proctor, *Collaborative Water Planning: Context and Practice. Literature Review* (2010) <<http://lwa.gov.au/files/products/track/pn21213/pn21213.pdf>> and Janice Gray, 'Watered Down Legal Constructs, Tradable Entitlement and the Regulation of Water' in Devleena Ghosh, Heather Goodall and Stephanie Hemelryk Donald (eds), *Water, Sovereignty and Borders in Asia and Oceania* (2008).

¹³⁰ See also notion of 'belief pluralism' as explained by William Twining, 'Law, Justice and Rights: Some Implications of a Global Perspective' (2008) <<http://www.ucl.ac.uk/laws/academics/profiles/index.shtml?twining>> 12-13.

¹³¹ Dennis Walker quoted in Watson, above n 111, 34.

V. PROPERTY AND THINGS

The intuitive appeal of making things the mediator of the relationship is evidenced by the pervasiveness of 'thingness' in the layperson's understanding of property.¹³²

An ecological interpretation of private property will consider at length human social relationships and ethical considerations. However, at a minimum, for a description of private property to be consistent with the Great Law it should also refer to the item, which is the subject matter of a property relationship. As described in chapter two, the orthodox Hohfeldian interpretation of private property entrenches a person-person relationship with respect to things.¹³³ Here rights are held against other people, who owe a corresponding duty to respect the right.¹³⁴ Social relations theorists also adhere to the person-person concept of private property.¹³⁵ The ecological conception of private property advanced in this chapter seeks to build on this framework by holding that private property is a relationship *through* or facilitated by an item of property. Including the object of a property relationship in our definition of property has intuitive appeal. Indeed, it maintains that private property is fundamentally a human institution, while giving explicit recognition to the fact that the thing itself is an important part of a property relationship. As Lametti contends: 'private property is a relationship both *to* and *through* objects of social wealth.'¹³⁶

¹³² Lametti, above n 13, 354.

¹³³ James Penner notes that this metaphor is dominant in modern legal discourse. See further James E Penner, 'The 'Bundle of Rights' Picture of Property' (1996) 43 *UCLA Law Review* 711: 713-4.

¹³⁴ Jeremy Waldron argues at above n 11, 27: 'legal relations cannot exist between people and [objects], because [objects] cannot have rights or duties of be bound by or recognise rules. The legal relations must be a relation between persons.'

¹³⁵ See Stephen Munzer, 'Property as Social Relations' in Stephen Munzer (ed), *New Essays in the Legal and Political Theory of Property* (2001) 36.

¹³⁶ Lametti, above n 13, 329.

In support of this description of private property, the profound shortcomings of a purely person-person description must first be explored.¹³⁷ What is proposed is an imaginary journey across the Adelaide plains to see what ownership means in practice. We only need a few stops to appreciate how private property is more than a person-person relationship and the consequences it has for the broader Earth community.¹³⁸

The Adelaide plains stretch west from the Adelaide Hills to the Southern Ocean. As a traveller journeys into this open land and across a series of ancient creek and river systems the land gives rise to a mixture of suburbs and broad acreage. We begin in the western watershed of the Mount Lofty Ranges and move northwest along Brown Hill Creek. The creek receives its modern name from the dominating hill behind Mitcham called Brown Hill that was grazed early in the history of Adelaide's European settlement. The Kurna peoples named this creek Wirraparinga, meaning 'creek or scrub place' and oral history surrounding its constant flow of water are commonplace. However, in less than two centuries of settlement, Brown Hill Creek has been reduced to a trickle. As we venture northwest along the creek bed, the reason for this dramatic reduction in water level becomes immediately obvious.

Stretching alongside the entrance to the creek are rows and rows of houses, whose backyards enter onto the creek. In scenes reminiscent of Garrett Hardin's tragedy of the commons, each house makes use of the creek in their own distinct way. Some houses have extended their gardens into the creek, growing both ornamental and vegetable plants along the side of the embankment. Others have planted apple trees and invasive varieties of prickly pear that are pollinated by the European bee. There are also a multitude of makeshift irrigation pipes drawing water illegally to sustain English rose gardens, lawns or tropical plantations.

Nestled within suburbia, the landscape changes dramatically as the traveller comes to a clearing and parkland. Here one finds an array of native birdlife including the Adelaide Rosella, Bandit Rosella, Common Blackbird and Starling. Pools of water cluster amidst ancient stone and provide a home for fish and amphibian young to develop and await the winter rain and increased water flow.

At the end of the park, the soil consistency of the creek shifts gradually from dense clay to a sandy loam. This is short lived as the soft creek bed is covered by kilometres of cement that extends up along the embankment. This stretch of creek bed is all but devoid of habitation and culminates in a 200-metre passage in complete darkness under a shopping plaza. Walking through this passage one hears the muted sound of traffic from above and the occasional crunch of the bones of fish whose seasonal journey along the creek has been cut short by the impermeable cement.

When one returns to the open, further access along this waterway is blocked by development. However, from a crouching position, the traveller can glimpse a small gap and continuation of the river through more concrete, fencing and housing.

¹³⁷ For further critique of the person-person conception see Graham, above n 107, 155-159. See further Alain Pottage, 'Instituting Property' (1998) 18 *Oxford Journal of Legal Studies* 331 and Kevin Gray, 'Property in Thin Air' (1991) *Cambridge Law Journal* 252.

¹³⁸ This exercise is inspired by Eric T. Freyfogle, 'Ownership and Ecology' (1993) 43(4) *Case Western Law Review* 1269. To explore the area described online visit <<http://www.backyards4wildlife.com.au/index.php?page=adelaide-map>>.

From this brief narrative, several points stand out as particularly important. To begin, it is clear that it is not only human beings, but also the land itself and non-human animals that are affected by the choices we make when exercising property rights. This is true whether we are considering the impact of human settlement on a waterway; land clearing on privately owned land or the construction of human made objects such as a car, books or even a paperclip. While perhaps an obvious point, it is not one that is expressly acknowledged in either the orthodox or social relations descriptions of private property.

From this narrative it can also be argued that nature and non-human animals play a role in shaping the interactions people have with the land.¹³⁹ Rights-based theories of private property do not acknowledge this point and instead focus on the way human beings use and control objects of property. However, on further reflection it is apparent that our interaction with the land is far from one-sided. The 'decision' to settle and construct housing around Brown Hill Creek was determined largely by factors such as water access, fertile soil, protection from the surrounding hills, food and ocean access. Further, the choices property owners have made in regard to their blocks have also been influenced heavily by ecological factors. Soil type, rainfall, and wind speed, for example, play a crucial role in determining what varieties of plant life an ecosystem will sustain. The 'choice' to plant an apple orchard or prickly pear cactus in the creek bed was possibly influenced by and only actualised because the ecosystem could sustain those plants.

¹³⁹ This point is made explicitly by Aldo Leopold who notes: 'Many historical events, hitherto explained solely in terms of human enterprise, were actually biotic interactions between people and the land. The characteristics of the land determined the facts quite as potently as the characteristics of the men who lived on it', Aldo Leopold, *A Sand County Almanac: With Essays on Conservation From Round River* (1966) 241. See also Theodore Steinberg, *Down to Earth: Nature's Role in American History* (2008).

If we step further outside the images of ownership advanced by rights-based theories of private property, one can find other examples of how nature has shaped human beings. This is perhaps most acute when considering the variety of choices human beings make in their own backyards. Author Michael Pollan writes:

Gardeners like me tend to think [our] choices are our sovereign prerogative: in the space of this garden, I tell myself, I alone determine which species will thrive and which will disappear. I'm in charge here, in other words, and behind me stand other humans still more in charge: the long chain of botanists, plant breeders, and these days, genetic engineers who 'selected', 'developed' or 'bred' the particular potato that I decided to plant. Even our grammar makes the terms of this relationship perfectly clear: *I choose the plants, I pull the weeds, I harvest the crops*. We divide the world into subjects and objects, and here in the garden, as in nature generally, we humans are the subjects.

But [one] afternoon in the garden I found myself wondering: What if that grammar is all wrong? What if it's really nothing more than self-serving conceit? The bumblebee would probably also regard himself as a subject in the garden and the bloom he's plundering for its drop of nectar as an object. But we know that this is just a failure of his imagination. The truth of the matter is that the flower has cleverly manipulated the bee into hauling its pollen from blossom to blossom.¹⁴⁰

In this passage, Pollan touches on a key ecological concept called coevolution.¹⁴¹ Coevolution is a kind of community-evolution¹⁴² involving 'reciprocal selective interaction' between two significant species with a close ecological relationship.¹⁴³ This can be witnessed in the above passage, where the apple tree has struck a coevolutionary bargain with the European bee. Here the two parties work together to advance their individual interests and wind up trading favours – transportation for the apple genes

¹⁴⁰ Michael Pollan, *The Botany of Desire: A Plant's-Eye View of the World* (2002) xiii-xiv.

¹⁴¹ See Edward O Wilson, *The Diversity of Life* (1992). See further Victor Scheffer, *Spire of Form* (2001) who notes at 14: 'Early in the history of life, nature began to shape new species to fit into habitats already occupied by other species. Never since the Achaean Period has a living thing evolved alone. Whole communities have evolved as if they were one great organism. Thus all evolution is coevolution and the biosphere is now a confederate of dependencies.'

¹⁴² Evolutionary interactions among organisms in which the exchange of genetic information among the kinds is minimal or absent.

¹⁴³ Eugene Odum, *Fundamentals of Ecology* (1971) 273. The term coevolution was coined by Paul Ehrlich and Peter Raven, 'Butterflies and Plants: A Study of Coevolution' (1964) 18 *Evolution* 586.

and food for the bee. Far from conscious, this transaction blurs the traditional distinction between subject and object.¹⁴⁴

Is the situation very different for the property owner, who in exercising freedom, plants a row of apple trees in the creek bed? Certainly, it is at least arguable that they are partners in a coevolutionary relationship. The size, variety and taste of apples have been selected over countless generations by human beings. Like bees, human beings have criteria for selection, which includes symmetry, sweetness and nutritional value.¹⁴⁵ The fact that humans have evolved to become intermittently aware of our desire makes no substantial difference to coevolution.¹⁴⁶ Reflecting on the concept of coevolution, it can be argued that what rights-based theories of property regard simply as a one-way exercise of control, can be regarded as a complex reciprocal and mutually beneficial relationship. Of course this is not true for all items of private property, but where it is true our legal concepts ought to be broad enough to recognise this fact. This is important both for the breadth and accuracy of our thinking on private property and also because it highlights the importance of the 'thing' itself in the choices property holders make.

The importance of explicitly recognising the 'thing' as part of the concept of private property has been advocated by a number of significant theorists. We will consider the contribution of AM Honoré and James E Penner to this discourse. The section also considers a decision of the United States Supreme Court and an example of 'things in practice' with reference to agrarian ideas of ownership.

¹⁴⁴ Pollen, above n 140, xiv.

¹⁴⁵ Ibid. Pollen comments: 'So the question arose in my mind that day: did I choose to plant these potatoes, or did the potato make me do it? In fact, both statements are true. I can remember the exact moment that spud seduced me, showing off its knobby charms in the pages of a seed catalog. I think it was the tasty-sounding 'buttery yellow flesh' that did it. This was a trivial, semiconscious event; it never occurred to me that our catalog encounter was of any evolutionary consequence whatsoever. Yet evolution consists of an infinitude of trivial, unconscious events and in the evolution of the potato my reading of a particular seed catalog on a particular January evening counts as one of them.'

¹⁴⁶ Odum, above n 143 (1971), 273.

1. *Things in Theory*

Within the contemporary analytic tradition, Honoré first articulated the argument for analysing private property with reference to the 'thing'.¹⁴⁷ Honoré discusses ownership in close proximity to objects and gradually extends his enumeration across a variety of items. Importantly, as he moves away from corporeal items, he argues that the nature of property rights change in response to the item of property. He writes:

Our investigation has revealed what we began by suspecting, that the notions of ownership and of the thing owned are interdependent. We are left not with an inclination to adopt a terminology which confines ownership to material objects, but with an understanding of a certain shift of meaning as ownership is applied to different classes of things owned.¹⁴⁸

While Honoré does not pursue this point further it highlights an important space for further discussion – that the nature of ownership varies according to the subject matter of a property relationship. While this injects a degree of emphasis on the object, Honoré is vague on the extent to which objects are important conceptually to the property bundle – which he largely supports.

A significant contributor to this debate is James E Penner.¹⁴⁹ Penner begins by critiquing the person-person conception of private property and notes that it does not represent how ordinary people understand and engage with private property. According to Penner, when one person sells their house to another person, the rest of the community do not perceive any change in their state of the relationship between the contracting parties. They all still have a duty to respect the right of the property holder.

¹⁴⁷ Honoré, above n 2, 161.

¹⁴⁸ *Ibid* 183.

¹⁴⁹ See James E Penner, 'The "Bundle of Rights" Picture of Property' (1996) 43 *UCLA Law Rev* 711; James Penner *The Idea of Property in Law* (1997) and James Penner 'The Idea of Property in Law' (1998) 43 *McGill Law Journal* 663.

In this situation, Penner claims that it is more accurate to characterise some norms as ‘norms *in rem*.’¹⁵⁰ Explaining further he writes:

To understand rights *in rem* we must not only discard Hohfeld’s dogma that rights are always relations between two persons, but also the idea that a right *in rem* is a simple relation between one person and a set of indefinitely many others.

[I]f we pay attention to the fact that rights and duties *in rem* do not refer to persons, not in the sense that property is not owned by persons, but in the sense that nothing to do with any particular individual’s personality is involved in the normative guidance they offer, we may get somewhere.¹⁵¹

Penner’s argument is that the distinction between *in rem/in personam* applies to all categories of norms and is the basis for our interaction with objects. This analysis is predicated on ‘objects’. A norm *in rem* requires a relationship to a thing and is framed with reference to the object. As Penner argues:

A duty *in rem* is a duty not to interfere with the property of others, or some state to which all others are equally entitled. Thus, a person is a holder of a right *in rem* when he benefits from that general duty. The holder of a right *in rem* benefits from the existence of an exclusionary reason, but one which does not apply to him alone. Note that in some sense the correlativity here is not symmetrical. The duty-owner’s duty applies to more cases than that of the individual right holder.¹⁵²

Penner’s insight is that norms can apply in a special, impersonal way *through* objects and have consequences for other persons. Correlativity between people is thus mediated by things, which can carry special types of rights and duties.¹⁵³ The distinction between Penner and orthodox Hohfeldian property theorists is one of symmetry and asymmetry.¹⁵⁴ The Hohfeldian picture of bilateral legal relations can be characterised as simple symmetry or one-to-one relationship. Here, each right holder has a

¹⁵⁰ Penner, above n 149 (1997), 25.

¹⁵¹ Ibid 25-26.

¹⁵² Ibid 29.

¹⁵³ For Penner, the characteristic duty is one of non-interference with the objects of property.

¹⁵⁴ This point is also highlighted by Lametti, above n 13, 343.

corresponding duty holder. However, Penner argues that in reality, there is no such symmetry in property relations.¹⁵⁵ Property holders understand their right as being good against the whole world – not just an individual. By the same token, duty holders owe a duty not to interfere with all items of private property that are not their own, focusing their duty not to interfere on the object itself and in a sense, making the right holder irrelevant. As a consequence Penner argues that the supposed bilateral nature of property relationships is undermined by the existence of asymmetry – the singular duty-holder and non-identified right-holders of owned objects. While Hohfeld's framework might have value for some private law relationships, it becomes distorted when applied to private property. Arguably, the identification of this asymmetry might stand as Penner's most important contribution to the 'property as things' discourse.¹⁵⁶

The notion of asymmetry has the potential for supporting the ecological description of private property advanced in this chapter. The structure of Penner's analysis, also illustrates the shortcomings of Hohfeld's person-person bi-lateral characterisation of private property. As noted, most items of private property are derived from nature and their creation and/or use impact the environment in some way. Nature can also play a role in shaping property choices. The inclusion of such considerations into our understanding and analysis of private property can only be supported by an asymmetrical framework, which recognises the role and importance of things.¹⁵⁷ Thus, private property is a relationship *between* persons and a relationship *with* things. It is circular and contrary to the anthropocentric separation drawn by orthodox theories between nature/things and human beings.

¹⁵⁵ Penner, above n 149 (1997), 34.

¹⁵⁶ Lametti, above n 13, 343.

¹⁵⁷ Penner, above n 149 (1997), 34.

One consequence of recognising the 'thing' itself as being integral to our description of private property is that it brings the object into focus and helps shape the particular rights and duties that attach to private property.¹⁵⁸ As Lametti argues: 'Contrary to the rights-based paradigm, the redefinition allows specific objects of property to carry with them duties of stewardship or obligations to be used in a certain manner.'¹⁵⁹ He argues further that inherent duties may attach to the 'ownership of certain resources' and that '*in rem* norms might arise from the unique characteristics of certain objects of social wealth.'¹⁶⁰ For example: 'the ownership of a specifically situated plot of land or building might entail specific, non-correlative, and asymmetrical duties to non-owners: stewardship of an environmentally sensitive area or heritage building.'¹⁶¹ In this instance the asymmetry is object-specific. This is a subtlety that cannot be accommodated internally by the rights-based understanding of private property. Curiously, neither Penner nor Lametti examine the possible implications of this step in great detail. If they did, they would find instances where *in rem* duties have attached themselves to the ownership of specific things.

The most celebrated example of *in rem* duties attaching to objects of ownership is the 1972 decision of the Wisconsin Supreme Court, *Just v Mariette County*.¹⁶² In that case, the plaintiff purchased 36.4 acres of land along the fore shore of Lake Noquebabe in Marionette County. In 1967 the county enacted an ordinance designed to protect the shore land by banning people from dumping garbage and waste into wetlands without a permit. Later in the same year and contrary to the ordinance the plaintiff dumped a

¹⁵⁸ Lametti, above n 13, 344.

¹⁵⁹ Ibid 328.

¹⁶⁰ Ibid 344.

¹⁶¹ Ibid.

¹⁶² *Just v Mariette County*, 56 Wisconsin 2d 7 (1972) This case is available online at: <<http://web.dcp.ufl.edu/ebartley/urp-6131/Assignments/Just.pdf>>.

large quantity of sand into the wetland without a permit. Marionette County objected and the plaintiff filed suit, requesting that the court declare the ordinance unconstitutional as a takings of their property in violation of the fifth amendment of the United States Constitution.¹⁶³

The Wisconsin Supreme Court summed up the dispute in the following terms: 'A conflict between the public interest in stopping the despoliation of natural resources, which our citizens until recently have taken for granted as inevitable and an owner's asserted right to use his property as he wishes.'¹⁶⁴ The Court noted further that the intention of the ordinance was not 'to secure a benefit for the public' by forcing or compelling the plaintiff to cease activity on their property.'¹⁶⁵ Instead the intention was 'to prevent a harm from the change in the natural character of'¹⁶⁶ the plaintiff's property. To decide what impact the ordinance had on the property rights of the plaintiff, the Court had to determine the nature of the property right they possessed. Indeed, if the plaintiffs did not have the right to dump sand in the wetland, then the ordinance could not possibly amount to a taking.

When deliberating on this issue, the court asked: 'Is the ownership of a parcel of land so absolute that man can change its nature to suit any of its purposes?'¹⁶⁷ The Court responded in the negative, holding:

An owner of land has no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others. The exercise of the police power in zoning must be reasonable and we think it is not an unreasonable exercise of that power to prevent harm to public rights by limiting the use of private property to its natural uses.¹⁶⁸

¹⁶³ *Mariette County*, 56 Wisconsin 2d 7 (1972) [761].

¹⁶⁴ *Mariette County*, 56 Wisconsin 2d 7 (1972) [767].

¹⁶⁵ *Mariette County*, 56 Wisconsin 2d 7 (1972) [767].

¹⁶⁶ *Mariette County*, 56 Wisconsin 2d 7 (1972) [767].

¹⁶⁷ *Mariette County*, 56 Wisconsin 2d 7 (1972) [768].

¹⁶⁸ *Mariette County*, 56 Wisconsin 2d 7 (1972) [768].

Contrary to liberal rights-based rhetoric, the Court held that plaintiffs possessed the right to use their land ‘for natural and indigenous uses’ and stressed that such use had to be ‘consistent with the nature of the land.’¹⁶⁹ That is – the specific nature of the wetland in question played a key role in determining the uses that landowners could engage in. In this case it was held that property rights should be exercised in a way that was consistent with the continued health of the wetland and not uses that required filling or draining. This ruling directly challenged the dominant understanding of property. As Freyfogle comments, the rights of landowners were limited to ‘ecologically sound activities’ and the baseline of a landowner’s entitlement was ‘nature itself.’¹⁷⁰ Expressed in the language of Earth Jurisprudence, the needs of the land acted as a bedrock standard or measure for human land-use practices.

While heralded by environmentalists,¹⁷¹ few other Courts have been willing to adopt or develop the Wisconsin Supreme Court’s alternative understanding of private property.¹⁷² Freyfogle explains this reluctance by noting difficulties in determining what is a natural use.¹⁷³ Further he argues: ‘To embrace nature itself as the source of rules, binding on lawmakers and without human interpretation, tinkers with much more than the law of private property: It alters the entire idea of sovereignty and public power.’¹⁷⁴ To be more palatable to the ‘modern democratic mind’ Freyfogle argues that the

¹⁶⁹ *Mariette County*, 56 Wisconsin 2d 7 (1972) [768].

¹⁷⁰ Freyfogle, above n 33, 96. For further commentary see also Freyfogle, above n 47 (1998), 107-108.

¹⁷¹ See Adam Rome, *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (2001) 234.

¹⁷² Freyfogle, above n 33, 96. The United States Supreme Court decision in *Lucas v. South Carolina Coastal Watch* 05 US Supreme Court 1003 (1992) has been considered the courts ‘long delayed answer’ to *Just*, see Joseph Sax, ‘Property Rights and the Economy of Nature: Understanding Lucas v. South Carolina Coastal Council’ (1992-1993) 45 *Stanford Law Review* 1433: 1438. Sax interprets the decision of Justice Scalia as meaning that ‘States may not regulate land use solely by requiring landowners to maintain their property in its natural state as part of a functioning ecosystem. In this sense, while the *Lucas* majority recognises the emerging view of land as a part of an ecosystem, rather than as purely private property, the Court seeks to limit the legal foundation for such a concept.’ This decision has been further critiqued in Byrne, above n 62 and Hunter, above n above n 62.

¹⁷³ Freyfogle, above n 47 (1998) 108.

¹⁷⁴ *Ibid.*

judgment needs revision. In a statement consistent with the idea of law proposed in Earth Jurisprudence, Freyfogle maintains: 'Nature's integrity can remain a bedrock value and limit, but humans must control the lawmaking process, interpreting the land scientifically and ethically and translating their conclusions and choices into new landownership norms.'¹⁷⁵

While the dominant concept of private property continues to advocate person-person relationships, the idea recognising the importance of 'things' and looking to the land itself as a source for use-rights has been adopted by a growing number of individuals, communities and organisations around the world.¹⁷⁶ The next section will consider one example of this with reference to agrarian land use practices. It argues that these practices contain valuable insight for those engaged in developing an ecocentric description of private property.¹⁷⁷

2. Things in Practice

Wendell Berry is an agrarian farmer, writer and academic.¹⁷⁸ Building on generations of farming experience, he argues that ownership norms are good only when they sustain the health of the human and non-human community.¹⁷⁹ 'Land health', he argues, is 'the

¹⁷⁵ Freyfogle, above n 47 (1998) 108.

¹⁷⁶ For an example from South Australia see The Food Forest <<http://www.foodforest.com.au/>>.

¹⁷⁷ See Burdon, above n 15. See also Eric T Freyfogle, *The New Agrarianism: Land, Culture, and the Community of Life* (2001) and Eric T Freyfogle, *Agrarianism and the Good Society: Land, Culture, Conflict, and Hope* (2007).

¹⁷⁸ See <<http://www.wendellberrybooks.com/>>. Wendell Berry notes agrarianism is 'primarily a practice, a set of attitudes, a loyalty and a passion; it is an idea only secondary and at a remove', in 'The Whole Horse: The Preservation of the Agrarian Mind' in Andrew Kimbrell (ed), *Fatal Harvest: The Tragedy of Industrial Agriculture* (2002) 8.

¹⁷⁹ Wendell Berry speaks highly of private property for the security and longevity it provides and the corresponding incentive to become stewards of place, see 'The Boundary' in *That Distant Land: The Collected Stories* (2005) 289-308.

one value...the one absolute good' that upholds the entire web of life.¹⁸⁰ In describing private property, Berry references English botanist, an organic farming Sir Albert Howard. Howard urged people to adopt a holistic perspective and understand the 'problem of land health in soil, plant, animal and man as one great subject.'¹⁸¹ Consistent with the concept of Earth community, Berry defines 'community' broadly:

If we speak of a *healthy* community, we cannot be speaking of a community that is merely human. We are talking about a neighbourhood of humans in a place, plus the place itself: its soil, its water, its air, and all the families and tries of the nonhuman creatures that belong to it. If the place is well preserved, if its entire membership, natural and human, is present in it, and if the human economy is in practical harmony with the nature of the place, then the community is healthy.¹⁸²

Berry also draws upon important elements of natural-rights reasoning when dealing with the limits of private property. 'I am an uneasy believer in the right of private property', Berry writes, 'because I know that this right can be understood as the right to destroy, which is to say the natural or the given world.'¹⁸³ He continues, stating that: 'I do not believe that such a right exists, even though its presumed existence has covered the destruction of a lot of land.'¹⁸⁴ Accordingly, for Berry the entire institution of private property is infused with ethical considerations. He argues further that private property functions best when owners act in relationship with each other and with the land itself:

Property belongs to a family of words, if we can free them from the denigration that shallow politics and social fashion have imposed on them, are the words and ideas, that govern our connections with the world and with one another: property, proper, appropriate, propriety.

The word property...if we use it in its full sense (that is, with a proper respect for the pattern of meaning that surrounds it) always implies the intimate involvement of a proprietary mind – not the mind of ownership, as the term is necessarily defined by the industrial economy, but a mind

¹⁸⁰ Wendell Berry, *A Continuous Harmony: Essays Cultural and Agricultural* (1972) 186.

¹⁸¹ Albert Howard, *The Soil and Health: A Study of Organic Agriculture* (1947) 11.

¹⁸² Wendell Berry, *Sex, Economy, Freedom and Community* (1993) 14. This statement is also consistent with Aldo Leopold's writing on land community, analysed in chapter one, pages 24-26.

¹⁸³ Wendell Berry, *Another Turn of the Crank* (1995) 50.

¹⁸⁴ *Ibid.*

possessed of the knowledge, affection, and skill appropriate to the keeping and use of its property.¹⁸⁵

Berry's writing has been influential on other agrarian farmers such as Wes Jackson¹⁸⁶ and the Land Institute.¹⁸⁷ Since 1976, Jackson and his colleagues have run a Natural Systems Agriculture Program.¹⁸⁸ The program challenges conventional ideas of ownership by conducting agriculture in a way that utilises and respects the naturally occurring ecological processes of the specific piece of land they are using and disturbing the pre-existing ecosystem as little as possible. Jackson notes that 'we took the never-plowed native prairie to be our teacher.'¹⁸⁹ Prairies are excellent teachers for Jackson's work because they sustain a great diversity of species, which are nearly all perennial. Further, plant roots on a prairie do rot away like annual roots. Instead, they hold soil though all seasons and as a consequence can be studied all year round. Moreover, perennial plants actually build soil and give back to the ecological system. The ecosystem thus maintains its own health, fuelled by the energy from the sun and recycled nutrients. All of this is achieved at no cost or detriment to human beings or to the Earth community.¹⁹⁰ Jackson explains:

...wherever there is a prairie, four functional groups are featured: warm-season grasses, cool-season grasses, legumes, and composites. Other species are present, but these groups are featured. Different species fill different roles. Some thrive in dry years, others in wet ones. Some provide fertility by fixing atmospheric nitrogen. Some tolerate shade, others require direct sunlight. Some repel insect predators. Some do better on poor, rocky soils while others need rich, deep soil. Diversity provides the system with built-in-resilience to changes and cycles in climate, water, insects and pests, grazers and other natural disturbances.¹⁹¹

¹⁸⁵ Wendell Berry, 'Whose Head is the Farmer Using? Whose Head is Using the Farmer?' in Wes Jackson, Wendell Berry and Bruce Coleman (eds), *Meeting the Expectations of the Land* (1984) 30.

¹⁸⁶ Wes Jackson, 'Farming In Nature's Image: Natural Systems of Agriculture' in Kimbrell above n 178, 43. See also Wes Jackson, *New Roots for Agriculture* (1980) and *Consulting the Genius of the Place: An Ecological Approach to a New Agriculture* (2010).

¹⁸⁷ See <<http://www.landinstitute.org/>>. See also Sinatra and Murphy, above n 113, 129-152.

¹⁸⁸ See <<http://www.landinstitute.org/vnews/display.v/ART/1997/09/01/3aa909339>>.

¹⁸⁹ Wes Jackson quoted in Kimbrell, above n 186, 44.

¹⁹⁰ *Ibid.*

¹⁹¹ *Ibid* 44. The term composite refers to daisies.

The challenge set by Jackson and his team is to combine species diversity and perennialism. To match the needs of the prairie they use four functional groups in their polyculture and seek to ensure that the groups produce harvestable grain for direct human consumption.¹⁹² They then imitate the prairie and produce harvest through the services it naturally performs. The results of this work have been extraordinary and Jackson contends: 'Properly designed, the system itself should virtually eliminate the ecological degradation characteristic of conventional agriculture and minimise the need for human intervention.'¹⁹³

For those who choose not to adapt rights-based ownership norms, the process of land use is one of constant reassessment and adjustment to the Earth. It involves getting to know a specific place and learning from ecological systems. Rather than dictating to the land, ownership practices unfold over time in conversation with a 'coequal subject rather than a mere object.'¹⁹⁴ Guided by nature, private property norms could express a 'community's growing understanding of nature' and their 'willingness to respect nature's limits'.¹⁹⁵ It could also provide a tool for dealing with recalcitrant landowners, inclined to continue to exploit the land for individual preference satisfaction.¹⁹⁶ Further to these factors, an ecological interpretation of private property could promote a more aesthetically pleasing landscape¹⁹⁷ and fulfil the common human desire to live in harmony with nature – as one member of the Earth community. Certainly, 'none of us

¹⁹² Wes Jackson quoted in Kimbrell, above n 186, 44.

¹⁹³ Ibid. For a report on the environmental impact of standard agricultural practices see Jason Clay, *World Agriculture and the Environment* (2004).

¹⁹⁴ Freyfogle, above n 47 (1998), 135.

¹⁹⁵ Ibid.

¹⁹⁶ Ibid.

¹⁹⁷ Ibid.

lives to the fullest, who does not study the natural order, and more than that, none is wise who does not ultimately make peace with it.¹⁹⁸

VI. CONCLUSION

Over the centuries, dominant western culture and lawmakers have never seriously considered giving up the institution of private property or reducing its importance.¹⁹⁹ However, there has been rigorous debate about what private property means. This is where Earth Jurisprudence can exercise the most influence, particularly its description of private property as a relationship between and among members of the Earth community, through tangible or intangible items. In this context, private property is more than an individual right and includes relationship with community, the land and ethical considerations. Consistent with the legal philosophy of Earth Jurisprudence, a theory of private property that overlooks any of these considerations is defective and deserves to be labelled as such.

This chapter acknowledges that any transition toward an ecocentric conception of private property requires extensive structural reform to the institution of property. It also acknowledges that the reforms outlined in this chapter will be attacked on the grounds of 'inefficiency' or perhaps 'utopianism', which is commonly leveled at proposals for 'interventionist' or 'regulatory' structural reform of the property system.²⁰⁰ However, this objection loses much of its power when considered in light of the role

¹⁹⁸ Holmes Rolston III, *Environmental Ethics: Duties to and Values in the Natural World* (1998) 44.

¹⁹⁹ Singer, above n 4, 1.

²⁰⁰ See Richard Epstein, 'Why Restrain Alienation?' (1995) 85 *Columbia Law Review* 970.

private property plays in facilitating environmental harm. As described in this chapter, there are persuasive arguments for human beings to rationally agree to limit their own efficiency and environmental impact. In this sense, what is utopian is not Earth Jurisprudence or an ecocentric theory of private property. What is truly utopian is the misguided belief that human law and legal concepts do not need to change and we can continue to exploit the environment for human benefit. From this perspective, the charges of inefficiency or utopianism ought to be embraced, not as an indictment but as a defence to existing ecological need.²⁰¹

Importantly, the key to evolving the concept of private property lies within the concept itself. As noted, private property is a concept that has many conceptions and interpretations, such that the past and present forms of private property by no means exhaust the range of institutional possibilities. The indeterminate nature of private property opens up theoretical space for systems of property that are radically different from contemporary rights-based interpretations. Further, for all its shortcomings, the liberal theory of private property allows individuals and the collective to choose their own concept of private property within set constraints. This was illustrated most poignantly with reference to indigenous ideas of ownership and agrarian land use practices. Thus, while the current rights-based theory promotes individual preference satisfaction, we can choose not to follow these ownership norms and interact with the land responsibly, ethically and with consideration of place. Making this choice is a following of the Great Law and consistent with the philosophy of Earth Jurisprudence.

²⁰¹ Cullinan, above n 3, 74: 'So it is that even the sophisticated governance structures of the European Union allocate greater fishing quotas than the fish stocks can bear, year after year. They have many scientists who advise them against doing so, but at the heart of it they do not accept (or do not care) that human governance systems are subservient to the unyielding rules of nature. No directive from Brussels can overrule the principle that continued over exploitation will reduce the fish population until it reaches levels that are so low that commercial fishing is not viable.'

Moreover, as Babie contends, exercising choice is fundamental to re-shaping the institution of private property.²⁰² If conducted on a broad scale and given the political will, ecocentric examples of property ownership can help transform the institution of private property. If we can reconceptualise our relationship with the land from individual rights to the concept of Earth community, then there is every chance that we can interact with the environment in a sustainable way for many years to come.

²⁰² See Paul Babie, 'Idea, Sovereignty, Eco-colonialism and the Future: Four Reflections on Private Property and Climate Change' (2010) 19 *Griffith Law Review* 527.

CHAPTER SIX

CONCLUSION

CONCLUSION

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I. SUMMARY OF ARGUMENT

History is governed by those overarching movements that give shape and meaning to life by relating the human venture to the larger destinies of the universe. Creating such a movement might be called the Great Work of a people.¹

In his final book before his death in 2009, Thomas Berry identified a 'Great Work' that lies before humankind. 'The Great Work now' he writes 'is to carry out the transition from a period of human devastation of the Earth to a period when humans would be present to the planet in a mutually beneficial manner.'² Berry was under no illusion of the immensity of this task, nor its urgency. Indeed, reflecting on the present environmental crisis, he argues that perhaps the most 'valuable heritage' we can provide for future generations, is some indication of how this work can be fulfilled in an effective manner.³ This is not a task we have chosen for ourselves. However, Berry maintains that '[t]he nobility of our lives...depends upon the manner in which we come to understand and fulfil our assigned role.'⁴ This thesis represents a modest contribution to the Great Work and is part of a vast tapestry of ideas and actions that are striving toward a sustainable human presence with the Earth community.⁵

Chapter one began by describing the motivation for the thesis, which is the present environmental crisis. Following this discussion, it outlined the fundamental themes upon which this thesis is built. It portrayed the environmental crisis as a crisis of culture and, following Berry, advanced anthropocentrism as being the fundamental root cause.⁶ Anthropocentrism has been widely promoted throughout the history of western culture.⁷ It posits a radical dichotomy between human beings

¹ Thomas Berry, *The Great Work* (1999) 1.

² *Ibid* 3.

³ *Ibid* 7.

⁴ *Ibid*.

⁵ See further Paul Hawken, *Blessed Unrest: How the Largest Movement in the World Came into Being and Why No One Saw It Coming* (2007).

⁶ Berry, above n 1, 4.

⁷ Berry, above n 1, 136-137.

and nature and regards humans as separate to the environment. This chapter then advanced a description of law as a product of culture or a 'magic mirror'⁸ that reflects social values and perceptions. Bringing these positions together, it argued that Western law reflects anthropocentrism and contributes to environmental harm. Finally, this chapter advocated that western law undergo a paradigm shift from anthropocentrism to the concept of Earth community. In contrast to anthropocentric ethics, this concept describes human beings as deeply interconnected with and dependant on nature. Further, it describes the Earth as a communion of subjects, not a collection of objects.⁹

Having outlined the motivation and fundamental themes of the thesis, chapter two illustrated laws anthropocentrism by analysing the concept of private property. Private property was advanced over other legal concepts because of the role it plays in governing human-Earth interactions and because it contains some of the laws main messages about nature and the place of humanity within it.¹⁰ This chapter argued that human dominion over nature constitutes the fundamental premise for Western theories of private property. It traced the root of this premise to Greek stoic philosophy and Christian theology. The perception of human beings as separate to nature intensified during the scientific revolution. During this period nature was viewed as a lifeless machine that existed for human use and exploitation. This reasoning was integral to the industrial revolution and the weakening of environmental protections for property owners that occurred from the 18th century onwards.¹¹ It also contributed to the description of private property as a person-person relationship, divorced from physicality. Finally, this chapter argued that liberal political philosophy continues to perpetuate anthropocentric ideas in the

⁸ See Kermit Hall, *The Magic Mirror: Law in American History* (2009) 1.

⁹ Thomas Berry and Brian Swimme, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era* (1994) 243.

¹⁰ Eric T Freyfogle, *Justice and the Earth: Images of Our Planetary Survival* (1993) 50.

¹¹ Sean Coyle and Karen Morrow, *The Philosophical Foundations of Environmental Law* (2004) 212-213.

contemporary rights-based description of private property. Liberalism promotes individual freedom of choice over duties to society or the environment. It also encourages owners to exercise their property rights to maximise self-interest.¹² This interpretation of private property is misleading and encourages an exploitative relationship with nature.¹³

Chapter three considered how law, as an evolving social institution, could shift to reflect the concept of Earth community. This alternative paradigm was supported by an analysis of quantum physics, ecology, autopoiesis and Gaia theory. Each of these disciplines illustrates the profound interconnectedness of nature and situates human beings as one part of a greater Earth community. The chapter argued that it is not enough to simply propose an alternative paradigm and assume that it will influence legal concepts. Instead, one must also explain how this paradigm can become assimilated and infused in law. This process was discussed with regard to the 'new story' proposed by Berry.¹⁴ The 'new story' describes the origin and development of the Earth community in scientific language and narrative form. It recognises the ultimate significance of cosmology in cultural vitality, transformation and survival. Further, because law is a mirror of society,¹⁵ it can foster help shift legal concepts toward ecocentric values.

Having posited the concept of Earth community as an alternative paradigm for law, chapter four offered an account of an emerging legal philosophy termed Earth Jurisprudence. Using the fragmentary comments of Berry for guidance,¹⁶ this chapter presented Earth Jurisprudence as a theory of Natural Law. It advocated the recognition of two types of 'law', organised in a hierarchical relationship. At the apex

¹² Jeremy Waldron, 'Liberalism' in Edward Craig (ed), *The Shorter Routledge Encyclopedia of Philosophy* (2005) 570.

¹³ Joseph William Singer, *Entitlement: The Paradoxes of Property* (2000) 12-13.

¹⁴ Thomas Berry and Brian Swimme, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era* (1994)

¹⁵ Hall, above n 8, 1.

¹⁶ Thomas Berry, 'Legal Conditions for Earth's Survival' in Mary-Evelyn Tucker (ed), *Evening Thoughts: Reflections on Earth as Sacred Community* (2006) 107.

is the Great Law, which represents the principle of Earth community. Below the Great Law is Human Law, which represents rules articulated by human authorities, which are consistent with the Great Law and enacted for the common good of the comprehensive Earth community. The process of articulating the Great Law is not purely objective and requires lawmakers to both interpret and apply the principle of Earth community. However, by requiring lawmakers to have regard to the Great Law, it is hoped that ecocentric ethics will become integral to law. Regarding the interrelationship between the Great Law and Human Law, two points were outlined. First, Human Law derives its legal quality and power to bind in conscience from the Great Law. Second, a purported law that transgresses the Great Law is considered a corruption of law and is not morally binding on a population.

The final chapter came full circle sketching an outline of how Earth Jurisprudence could influence the concept of private property. This chapter described private property as a relationship between and among members of the Earth community, through tangible or intangible items. It considered three important implications from this alternative description. First, it argued that private property is socially situated and property rights are contingent on their impact on others within the community. Second, nonreciprocal obligations and responsibilities to human beings and non-human nature are inherent to the institution. Finally, this chapter argued that the concept of private property ought to place specific importance upon and respond to the item of property itself. That is, the item of a property relationship plays a role in shaping the specific use-rights and responsibilities held by property owners. This chapter concluded by contending that a theory of private property that overlooks any of these factors is defective and deserves to be labelled as such.

II. DIRECTIONS FOR FUTURE RESEARCH

The philosophy of Earth Jurisprudence and the notion of an Earth-centred theory of private property are both complex ideas and, in many ways, controversial. As a result, there are many directions for future research and extension of the thesis.

Although based on a substantial body of scholarship, the description of private property as anthropocentric in chapter two requires further development. In particular the analysis was limited to three periods in the development of private property. It also constrained itself to 'dominant' or 'mainstream' theories and not the multitude of alternative descriptions offered by philosophers, theologians and jurists in history.¹⁷ It also did not engage with the role of the enclosure movement and land title system in severing connections between people and the land and abstracting property rights.¹⁸ The analysis would further be strengthened with empirical analysis and data regarding how landowners understand private property in practice. This approach would provide a methodology for testing the existence and/or prevalence of the various anthropocentric ideas that are promoted in both the legal-philosophical discourse on private property.¹⁹

In chapter three several issues were raised that would benefit from further research. In particular, while qualified, the description of Earth community relied entirely on scientific description. There are powerful and persuasive reasons for adopting this methodology, still, science should not be understood as the exclusive avenue through which to understand the concept of Earth community.²⁰ In

¹⁷ For a comprehensive history see Richard Schlatter, *Private Property: The History of an Idea* (1951).

¹⁸ See Alain Pottage, 'The Measure of Land' (1994) 57(3) *Modern Law Review* 361. Pottage argues that historically land title was dependant for its stability upon the vicissitudes of recollection. He notes: 'to buy a title was to make an investment of trust in these conditions of continuity.' In regard to the land title system that emerged after the enclosure movement, he argues: 'Registration removes titles from networks of organic or practical memory and deposits them in an administrative achieve, accessible and decipherable by reference only to the index of the achieve.'

¹⁹ See for example the methodology in James Sinatra and Phin Murphy, *Listen to the People, Listen to the Land* (1999).

²⁰ Berry, above n 1. While Berry relied heavily on science, he noted frequently the importance of experience. He writes at 15: 'We ready books written with a strangely contrived human alphabet. We no

continental philosophy, phenomenology offers a pertinent critique of the scientific method and an experiential methodology for gaining knowledge.²¹ Indigenous²² and other cultural traditions such as religion²³ also offer important perspectives that can inform future descriptions of the concept. This approach seeks to be inclusive and accommodate diverse traditions. These traditions could also have consequences for legal concepts such as the description of private property advanced in chapter five. Specifically, experiential knowledge may have consequence for the establishment of a place based property system that is informed by science and community knowledge and responds to the needs or limits of the land.²⁴ While the beginning of such a system was outlined in chapter five, future research could investigate examples of place-based ownership in practice and extract norms that are relevant to the legal-philosophical discourse on private property.

Further analysis is also needed into how the concept of Earth community can become entrenched in culture and legal institutions. Much more could be said about the role of religion and cosmology in cultural change.²⁵ Further, there is an emerging body of literature addressing the relationship between law and social movements.²⁶ Certainly, the environment movement has played and continues to play a central role in advocating ecocentric ethics and incremental law reform.²⁷ As Michael McCann writes however, the '[r]igorous study of law and social movements has been

longer read the Book of Nature...We have extensive contact with the natural world through photographs and television presentations. But as Saint Augustine remarked long ago, a picture of food does not nourish us.'

²¹ The classic text is Maurice Merleau-Ponty, *Phenomenology of Perception* (2002) [first published 1945]. For a valuable introduction see Neil Evernden, *The Natural Alien* (1993). See also Andreas Philippopoulos-Mihalopoulos, *Absent Environments: Theorising Environmental Law and the City* (2006).

²² See Sinatra and Murphy, above n 19.

²³ See Larry L Rasmussen, *Earth Community, Earth Ethics* (1997) and Mary-Evelyn Tucker, *Worldly Wonder: Religions Enter Their Ecological Phase* (2003).

²⁴ Peter Burdon, 'Private Property, Phenomenology and Place' (2011) *University of Adelaide Working Paper* 2011-001.

²⁵ See Gary T Gardner, *Inspiring Progress: Religion's Contribution to Sustainable Development* (2006).

²⁶ See Michael McCann (ed), *Law and Social Movements* (2006).

²⁷ See Cary Coglianese, 'Social Movements, Law and Society: The Institutionalization of the Environment Movement' (2001) 150 *University of Pennsylvania Law Review* 85.

a surprisingly limited and marginal intellectual endeavour in the legal academy.²⁸ Future research can consider how the environment movement could impact on the legal system to bring about a paradigm shift from anthropocentric to ecocentric ethics. In particular, it could consider the role of the environment movement in influencing the social context within which judges adjudicate; direct engagement with the judicial process by initiating legal proceedings and the use of campaigning to mobilise the legislative process.

Perhaps the most fertile place for further research and refinement is the account of Earth Jurisprudence as a legal philosophy provided in chapter four. Further to developing a more robust description of the legal categories advocated and their interrelationship, more work is required in anticipating and responding to objections to the theory. Because this thesis described Earth Jurisprudence as a theory of Natural Law, one could anticipate critique from Legal Positivists. Future research could anticipate this debate by highlighting the commonalities between the two theories²⁹ and promoting the role of positive law in Earth Jurisprudence. In regard to this latter point, future research could consider in greater detail what constitutional and other legal changes would best promote the theory and how they can be brought about.³⁰

²⁸ Michael McCann, 'Law and Social Movements: Contemporary Perspectives' (2006) 2 *Annual Review of Law and Social Science* 17. See also Edward Rubin, 'Passing Through the Door: Social Movement Literature and Legal Scholarship' (2001) 150 *University of Pennsylvania Law Review* 1. Rubin argues at 2 that 'legal scholars seem largely oblivious to the extensive social science literature on social movements.'

²⁹ While the subject of rigorous debate, the dividing line between contemporary natural law theories and legal positivism is only slight. See Brian H Bix, 'On the Dividing Line Between Natural Law Theory and Legal Positivism' (1999-2000) 75 *Notre Dame Law Review* 1613. HLA, *Essays in Jurisprudence and Philosophy* (1983) at 10 describes Finnis's natural law theory as being 'in many respects complementary to rather than a rival of positivist theory.' Neil MacCormick, 'Natural Law and the Separation of Law and Morals' in Robert P George (ed), *Natural Theory: Contemporary Essays* (1994) at 105 and 109 describes the convergence of modern legal positivism and Finnis's natural law theory. In Joseph Raz, 'The Morality of Obedience' (1985) 83 *Michigan Law Review* 732: 739 claims that 'it is a mistake to think that the legal positivist and the natural law traditions are inherently incompatible.'

³⁰ Important work has already occurred in regard to the implementation and theoretical development of the rights of nature. For an overview see Peter Burdon, 'The Rights of Nature: Reconsidered' (2010) 49 *Australian Humanities Review* 69.

One area of particular importance for future research concerns the justification offered for civil disobedience. Indeed, if governments fail to respond adequately or continue to create laws that promote environmental harm, one can anticipate a weakening in their legal authority as the environmental crisis worsens. This may lead to increased instances of civil disobedience and a divergence of tactics/methods considered morally legitimate.³¹ In response, it is important that Earth Jurisprudence develops a robust justification for legitimate acts of civil disobedience, aimed at bringing about a change in law or policies of government. Further work could also be directed at both articulating and promoting laws that recognise discretion for prosecutors and provide guidance as to when protests ought to be tolerated.

Finally, the application of Earth Jurisprudence was limited to the legal-philosophical concept of private property. It did not begin to consider its potential application to other areas of law or to governance structures. In regard to the actual reforms to private property proposed in chapter five, it is clear that more comprehensive analysis is also necessary. Outlining proposals for shifting the concept of private property is necessary in the early stages of reform – but once the coherency of the idea has been established, at least in a preliminary way, further work is needed for the ideas to advance. Specifically, for the concept of private property advanced in this thesis to be adopted, it would require reassessment and development according to jurisdictional context and shaping according to time, place and circumstance. Furthermore, this thesis does not purport to have exhausted the limits of property reform and offered one interpretation of how private property

³¹ Following John Rawls, chapter four defined civil disobedience as a ‘public, non-violent, conscientious yet political act contrary to law usually done with the aim of bringing about a change in the law or policies of government’, *A Theory of Justice* (1999) 320. For arguments in favour of an expanded definition of civil disobedience to include property destruction see Bill Haywood, Dave Foreman, Edward Abbey, *Ecodefense: A Field Guide to Monkeywrenching* (1993) and Ward Churchill, *Pacifism as Pathology* (2007).

could reflect the theory of Earth Jurisprudence. This proposal needs to be considered alongside alternative ideas and to be subjected to open public discussion and further refinement.³²

III. CONCLUDING REMARKS

While the arguments of this thesis were generally presented tentatively, the arguments themselves were bold and this thesis certainly has not answered every question about what an ecocentric theory of law or private property might look like, how it might function or how the transition from anthropocentrism might play out. At the same time, there is a growing recognition that the anthropocentric nature of Western law and its reflection in the institution of private property is central to the present environmental crisis. Eventually, it seems clear that both will need to shift to promote a mutually enhancing human-Earth relationship and reflect the emerging paradigm of Earth community. While important work is being carried out in this regard, the project of transitioning toward the Ecozoic era is still in its infancy. Because of the importance our culture places on law and the institution of private property, a paradigm shift toward ecocentrism will require a fundamental rethinking of both institutions and the purposes they intend to serve. In outlining an ecocentric philosophy of law and theory of private property, this thesis aimed to provide some groundwork needed to advance this most important task.

German poet, Rainer Maria Rilke eloquently captures the Great Work that lies before us:

³² On the importance of open public discourse in the strengthening and survivability of legal concepts see Rawls, above n 31 67. See also Amartya Sen, 'Consequential Evaluation and Practical Reason' (2000) 97 *Journal of Philosophy* 477 and Amy Guttmann and Dennis Thompson, *Democracy and Disagreement* (1996).

How surely gravity's law,
strong as an ocean current,
takes hold of the smallest thing
and pulls it toward the heart of the world.

Each thing-
each stone, blossom, child-
is held in place.
Only we, in our arrogance,
push out beyond what we each belong to
for some empty freedom.

If we surrendered
to earth's intelligence
we could rise up rooted, like trees.

Instead we entangle ourselves
in knots of our own making
and struggle, lonely and confused.

So like children, we begin again
to learn from the things,
because they are in God's heart;
they have never left him.

This is what the things can teach us:
to fall,
patiently to trust our heaviness.
Even a bird has to do that
before he can fly.³³

³³ Maria Rainer Rilke, *Rilke's Book of Hours* (1996) 116.

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