Volume 1

Property Law at the Margins:

Constitution, Capacity and Relational Aspects

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ABSTRACT

New technologies, a shift towards markets and trading as favoured tools of neo-liberal governance, and the re-casting of inter-cultural relationships have contributed to an increase in the sites where the proprietary paradigm is potentially applicable. As new legal issues and contexts arise, property is often presented as the 'solution' that will instil order, resolve disputes, solve social and legal problems and support governance. But will it? Indeed, can it? This thesis considers property's constitution, capacity and its relationships with other non-legal fields, disciplines and sectors in order to analyse property's effectiveness.

It focuses on four emerging sites—native title, water/sewage, unconventional gas and cyberspace— to analyse property's applicability and potential because it is at marginal sites that the limits of property are often tested. It begins by critiquing the bundle of sticks concept of property to highlight property's complexity and warn against its reification. It then locates property in the range of diverse appended publications before analysing them.

Five key property-related themes emerge from the publications at the four marginal sites. Discussion of them provides insights into property's effectiveness as a tool of social organisation, management and democracy. It reveals that propertization is unlikely to capture the plethora of non-legal understandings which exist about property. It also observes that because property rights are often in competition with each other propertization may not yield all anticipated benefits. Further, if trade can be de-coupled from property (in the regulatory space) property's importance will diminish. Meanwhile the tension between flexibility and fixity, and the role of resistance and context in the property space reveal further limits on property's effectiveness.

Discussion of the five themes demonstrates and supports the key argument that property's effectiveness is contingent on purpose and purposes may be diverse and sometimes contradictory. Property is not necessarily a panacea.

STATEMENT RE PREVIOUS SUBMISSION OF MATERIAL

I, Janice Susan Gray, declare that none of the material offered as part of this PhD by publication has been previously submitted by me for a degree at this or any other University.

30 June, 2016

STATEMENT OF LENGTH

Statement pursuant to provision 1(4), Section 3, Research Degrees: Submission, Presentation, Consultation and Borrowing of Theses; Instructions.

The word count for the critical analysis component of this thesis is 19,830 words, excluding footnotes and bibliography.

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Native Title Publications

Gray, Janice, 'The *Mabo* Case: A Radical Decision?' (1997) 17(1) Canadian Journal of Native Studies 33
Referred to as *Radical Decision.*

Gray, Janice, '0 Canada! *Van der Peet* as Guidance on the Construction of Native Title Rights' (1997) 2(1) Australian Indigenous Law Reporter 18
Referred to as *O Canada!*

Gray, Janice, 'Is Native Title a Proprietary Right?' (2002) 9(3) Murdoch University Electronic Law Journal <http://www.austlii.edu.au/au/journals/MurUEJL/2002/32.html> accessed 14 May 2016
Referred to as *Native Title: A Proprietary Right*?

Gray, Janice, 'The Lost Promise of *Mabo*: An Update on the Legal Struggle for Land Rights in Australia with Particular Reference to the *Ward* and *Yorta Yorta* Decisions' (2003) 23(1) Canadian Journal of Native Studies 305
Referred to as *Lost Promise.*

Gray, Janice, and Brendan Edgeworth, *Property Law in NSW* (1st edn, Butterworths LexisNexis 2003) ch 4 'Native Title'
Referred to as *Native Title Chapter.*

Property

Gray, Janice, 'Stories from a Favela: The Limits of Property Law' (2005) 30(4) Alternative Law Journal 184
Referred to as *Favelas.*

Gray, Janice, Brendan Edgeworth, Neil Foster and Shaunnagh Dorsett, *Property Law in New South Wales* (3rd edn, LexisNexis 2012) ch 8 'Torrens Title'
Referred to as *Torrens Chapter*.

Water and Sewage

Gray, Janice, and Alex Gardner, 'Exploiting the Unspeakable: Third-Party Access to Sewage and Public Sector Sewerage Infrastructure' in Patrick Troy (ed), *Troubled Waters: Confronting the Water Crisis in Australia's Cities* (ANU E Press 2008)
Referred to as *Unspeakable.*

Gray, Janice, 'Legal Approaches to the Ownership, Management and Regulation of Water from Riparian Rights to Commodification' (2006) 1(2) Transforming Cultures eJournal <http://epress.lib.uts.edu.au/journals/index.php/TfC/issue/view/21> accessed 14 May 2016
Referred to as *Transforming Cultures*.

Gray, Janice, 'Watered Down? - Legal Constructs, Tradable Entitlements and the Regulation of Water' in Devleena Ghosh, Heather Goodall and Stephanie Hemelryk Donald (eds), *Water, Sovereignty and Borders in Asia and Oceania* (Routledge 2008)
Referred to as *Watered Down*.

Gardner, Alex, Richard Bartlett and **Janice Gray**, *Water Resources Law* (Lexis Nexis, 2009) chs 23 'The Object and Rationale for Transferability', 24 'The Historic Non-Transferability of Water Access Rights in Australia', 25 'Contemporary Transferability'
Referred to as *Object and Rationale*, *Historic Non-transferability*; and *Contemporary Transferability* respectively.

Gray, Janice, 'Mine or Ours? Sewage, Recycled Water and Property' in Klaus Bosselmann and Vernon Tava (eds), *Water Rights and Sustainability* (New Zealand Centre for Environmental Law 2011)
Referred to as *Mine or Ours*.

Gray, Janice, 'Water Resources Regulation and Trading in Australia' in A Saddy and Aurilivi Linares Martinez (eds), *Dereito das Infraestruturas: Um Estudo dos Distintos Mercados Regulados* [*Infrastructure Law: A Study of Regulated Markets*] (Lumen Juris 2011)
Referred to as *Water: Brazilian Chapter*.

Gray, Janice, 'The Legal Framework for Water Trading in the Murray Darling Basin: An Overwhelming Success?' (2012) 29(4) Environmental and Planning Law Journal 328
Referred to as *Overwhelming Success?*

Gray, Janice, 'Dollars and Dreams: Legal Aspirations and Report Cards in the Murray-Darling Basin of Australia' in Laura Westra, Prudence Taylor and Agnes Michelot (eds)**,** *Confronting Ecological and Economic Collapse: Ecological Integrity for Law, Policy and Human Rights* (Routledge Earthscan 2013)
Referred to as *Dollars and Dreams*.

Unconventional Gas

Gray, Janice, 'Frack Off! Law, Policy, Social Resistance, Coal Seam Gas Mining and the Earth Charter' in Laura Westra and Mirian Vilela (eds), *The Earth Charter, Ecological Integrity and Social Movements* (Routledge Earthscan 2014)
Referred to as *Frack Off*.

Gray, Janice, 'Unconventional Gas Mining — What a Fracking Story!', in Laura Westra, **Janice Gray** and Vasiliki Karageorgou (eds), *Ecological Systems Integrity: Governance, Law and Human Rights* (Routledge Earthscan 2015)
Referred to as *Fracking Story.*

Cyberspace

Walpole, Michael and **Janice Gray**, 'Taxing *Virtually* Everything: Cyberspace Profits, Property Law and Taxation Liability' (2010) 39(1) Australian Taxation Review 39
Referred to as *Cyberspace*.

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Janice Gray

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CRITICAL ANALYSIS

PART 1

Introduction

Background

The modern world is a dynamic one. New technologies, the re-envisioning of relationships, changing views on social justice, equity and environmental priorities, and shifts in governance approaches have all contributed to the creation of many opportunities for mediating established legal concepts, relations and rights. One legal realm which has proved particularly important in this regard is property — the area of law which is concerned with the relationship between people about things.

This is a thesis about property, or more particularly about property at the margins. It contends that property law and property issues not only often arise in unexpected (typically marginal) places or sites but also that the concept of property and the appropriateness of its application and its relationship with other fields, disciplines and jurisdictions are often tested and taken to the limits at these sites. Hence this thesis explores property's potential. It is concerned with how property is constituted; what capacity it has to assist governance, solve social and legal problems and instil order; as well as how it relates to, shapes and is shaped by, other legal and non-legal categories and sub-categories, disciplines, fields and sectors.

The selection of appended publications together with this critical analysis, collectively form the PhD thesis.

In the interests of space and where appropriate, the titles of the appended publications have been abbreviated and are often included within the text. The legend for the title abbreviations is contained in the document entitled 'List of Appended Publications' which precedes this critical analysis.[1]

[1] Otherwise OSCOLA referencing is used.

Structure and methodology

The analysis is structured around three parts. Part 1 provides background and introductory material. It sets out the over-arching argument or thesis which binds the publications into a coherent whole and it outlines the methodology employed. It also identifies the four sites at which discussion (in both the publications and this analysis) is focused and it lists five themes which arise out of the publications. Finally, it explains the contribution the thesis makes to the field.

Part 2 discusses the concept of property. It outlines and critiques the 'bundle of sticks' (or 'bundle of rights') conception of property (a) to help demonstrate property's potential (for example, its capacity for fragmentation) and (b) to reinforce the view that property is a complex and nuanced concept, reification of which may cause us to lose a sense of the relationships and values that underpin it.

Meanwhile, Part 3 specifically locates property in the appended publications and refers to their place in the literature. It then explores five themes which emerge from the publications, linking the discussion back to the over-arching thesis or argument. This part also offers a conclusion.

The thesis is: (a) doctrinal, (b) based on Australia (because that country has been at the vanguard of many property law developments),[2] and (c) locates property law in its socio-political context. It is underpinned by a solid understanding and exposition of property law principles and doctrines (mainly but not exclusively) drawn from land law.

[2] For example, the Torrens system of land titling and transfer originated in South Australia in 1858 (Real Property ['Torrens Title'] Act 1858 (SA)) and has been replicated in New South Wales (1862), Victoria (1862) Ireland, New Zealand, Malaysia, Singapore, Iran, England, Wales and Madagascar. See Victorian Government, Department of Transport, Planning and Local Infrastructure, Torrens Title (7 October 2014) <www.dtpli.vic.gov.au/property-and-land-titles/land-titles/torrens-titles> accessed 30 October 2015. See Torrens Chapter, 302–304. Australia has also been a pioneer in water governance, adopting water trading regimes and the associated de-coupling of water entitlements from land ownership. South Africa, the UK, India, Oman, Pakistan, Indonesia, Brazil and China followed Australia's lead into water trading. Australia has also provided models and lessons in the unconventional gas space where property conflicts have emerged.

Over-arching or binding argument

Property is not necessarily a panacea — its effectiveness is contingent on purpose

The over-arching argument or thesis arising out of, and building on, the appended publications is that despite property's potentially extensive reach and its capacity to be applied in a range of emerging and often marginal sites, the propertization of 'things' or relationships will not necessarily lead to desired outcomes. A property characterization is not necessarily a panacea.

Whether property is the most effective tool or vehicle to help reach desired outcomes will depend on the *purpose* it is employed to serve. The reason *why* the property paradigm is relied on will be highly significant in determining property's effectiveness as an organisational tool, as an instrument of democracy or as an instrument for developing autonomy, for example.

That property's effectiveness is contingent on purpose brings into question the increasingly popular tendency to see a proprietary characterisation[3] as 'the answer' or the 'solution' to a range of problems.[4] If only something could be propertized, it is assumed problems will fall away. On this reading, property owners are presumed to be 'winners' and their very ownership implies that they have a strong moral claim to be protected from loss of their property right.[5]

An inclination to see property in this very favourable light is understandable because it is, at least in part, based on valid assumptions. As is well-rehearsed, property rights *are* stable, they *can* be enforced against all the world and the remedies which may be invoked in cases of their breach *are* extensive. However, property is a complex and nuanced concept with a contested past and its application may have downsides, too. Property may cause as many

[3] The terms 'property' and 'proprietary' are used interchangeably here.
[4] See discussion leading-up to Australian water reforms in the 1990s and 2000s. The enthusiasm for propertization was matched by a related enthusiasm for trading and markets. See *Objects and Rationale*. The enthusiasm for propertization may also be seen in the unconventional gas sector and in relation to the cyberspace game, 'Second Life'.
[5] These presumptions are discussed in Joseph William Singer, *Entitlement: The Paradoxes of Property* (Yale UP 2000) 83.

disputes as it solves.[6] Therefore, if property is to be an effective management and governance tool it needs to be 'fit for purpose'. In other words, we will need to bear in mind what we want property to achieve before we embrace it as the best means of delivering desired outcomes.

Hence whether property is the most helpful characterisation of native title, for example, will depend on the purpose of employing the proprietary frame. If the purpose is to provide a powerful spectrum of remedies, property may be a helpful tool, but if the purpose is to find a legal characterisation which respects the spirituality of the Dreaming,[7] the property characterisation is likely to be found wanting.

To take another example, whether the introduction of property rights in the water access context is effective will depend on what their introduction is expected to achieve. If, for example, the purpose is to facilitate ease of trading, then propertizing the objects of trade (water access entitlements) may be beneficial but if the desired outcomes extend beyond supporting the mechanics of transfer to the actual achievement of environmental sustainability, property may, again, be found wanting. Propertization is not the answer to everything[8] — and even where it is useful, alone it is unlikely to solve (often intractable) problems.[9]

Whether property is the most effective vehicle or tool to deliver desired outcomes will also be dependent, at least in part, on which conceptualisation of property is relied on. The conceptualisation will help determine property's

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[6] Eric T Freyfogle, 'Private Property — Correcting the Half-Truths' (2007) 59(10) Plann & Envtl L 3.

[7] *The Dreaming* is an English term used to describe the relations and balance between the spiritual, natural and moral elements of the world as experienced and understood by Indigenous Australians. It has no direct non-Aboriginal or non-Indigenous equivalent and is part of the creation story but significantly more than this. For example, it transcends time and exists in the present as well as past. See, eg, WEH Stanner, 'The Dreaming' in WH Edwards (ed), Traditional Aboriginal Society (first published 1956, 2nd edn, Macmillan 1990). The word for the Dreaming varies across Indigenous languages. For example, to Central Australian (Warlpiri) Indigenous people it is known as *Jukurrpa or Tjukurrpa*, while to the Arrernte (Aranda), it is *altyerrenge or alcheringa*. See, eg, Baldwin Spencer and FJ Gillen, The Native Tribes of Australia Glossary (Macmillan 1899) 645. Text avail <www.sacred-texts.com/aus/ntca/ntca25.htm>.

[8] See Joseph Singer's Friendswood example: Singer, *Entitlement: The Paradoxes of Property* (n 5) 19-25.

[9] See water resource issues in the Murray Darling Basin in New South Wales where a cap on water allocations was also needed. See *Contemporary Transferability* 562.

capacity. Many conceptualisations are available, ranging from absolutist and essentialist approaches through to the currently popular bundle of sticks approach.[10] Whilst there is much to like about the bundle of sticks approach (particularly its flexibility), several of the publications (indirectly) reveal weaknesses in the approach, particularly in relation to environmental issues.

In conceiving of property rights as disaggregated rights divorced from the environment in which they are situated and from the 'things' they govern, the bundle of rights approach arguably does not help advance ecologically sustainable goals and outcomes. Hence the bundle of rights analogy alone is insufficient a conceptualization of property to support the fulfilment of positive outcomes at the sites of native title, water and unconventional gas, in particular. It needs to be modified and perhaps fused with elements of other conceptualisations to become a 'good fit' for the subjects of the publications in this thesis. Even then reconciliation of the tension between property rights and ecological sustainability involves reconciliation of a tension between individual freedom and public morality.[11] It is a difficult tension to resolve and much depends on the outcome.

Questions for exploration

The key research questions which drive this thesis are:

- What are the limits of property law and how does property law support, interact, and engage with other categories of law in emerging fields, sectors or jurisdictions — how does property law co-exist and/or engage with other disciplines' understandings of property?
- How responsive, reflective and flexible is property law at the margins?
- How accommodating of, and appropriate to, the recognition of new relationships, technologies and claims is property law?

[10] For example, Thomas W Merrill, 'Property and the Right to Exclude' (1998) 77 Neb L Rev 730. He argues that the bundle is not important; only one stick is important — exclusion. Note: 'sticks' and 'rights' are used interchangeably.
[11] Klaus Bosselmann, 'Property Rights and Sustainability' in David Grinlinton and Prue Taylor (eds), *Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges* (Martinus Nijhoff, 2011) 23.

These three questions take us to the heart of property and of what it is (in)capable.

The publications open up opportunities for consideration of these questions at four selected sites, permitting us among other things, to assess property's appropriateness as a tool of governance and as a means by which we can better understand human interconnectedness.

Four selected sites of study

The four emerging sites on which the publications and analysis focus are:

(1) native title,

(2) water and sewage,[12]

(3) unconventional gas, and

(4) cyberspace.

The sites are bound by their positional commonality: they are all spaces in which property law has been tested, refined, re-imagined, applied, rejected or has interacted in novel ways with other aspects of law or regulation. Additionally, they are sites where new relationships and technologies have resulted in new claims in, dependent on, or related to, the proprietary space. As a result they provide excellent realms in which to explore and analyse property law at the margins or limits.

In particular, the sites have been chosen for their capacity to raise issues about a range of property related concerns including: the public-private property divide and the changing role of the state; the opening up of state-owned monopolies to competition; the tradeability of natural resources; conflict over different land uses; the challenges of fashioning real life property understandings to fit previously unimagined virtual world scenarios; and the co-existence of two culturally different legal systems.

[12] Sewage is sometimes referred to as black water or wastewater.

As discussion of the five themes (in Part 3) reveals, the sites also permit consideration of the relational aspects of different kinds of property interests, internally as against each other. Hence they permit examination of the relationship between the nature and ambit of real property rights on one hand and personal property rights on the other. Additionally, they permit examination of the relationship between property and other legal domains (such as confidential information) as well as the relationship between property and other non-legal domains or disciplines (such as history and environmental management). The sites have, therefore, been selected for their capacity to raise issues which inform ideas and debate about the rise of new forms of property (including regulatory property)[13] and because they permit exploration of how property permeates many of our legal, social, environmental and economic relationships.

Accordingly, the thesis discusses the interstices and the edges as much as the core, meaning that at times, it must focus on the excavation of concepts in order to reveal the dark places in which property issues sometimes lurk.

Five themes

Five themes arise out of the publications and consideration of the research questions at the four sites. The themes are: (1) both legal and non-legal understandings of property exist; (2) tensions exist between different types of property such as common property and private property; (3) property supports markets and trading, and markets and trading may define property; (4) tensions exists between property's flexibility and fixity; and (5) property's significance may be mediated through context, resistance and conflict. They are discussed in Part 3.

[13] Kevin Gray, 'Regulatory Property and the Jurisprudence of Public Trust' [2010] Sing JLS 58.

Contribution

This thesis makes at least a four-fold contribution.

(1) *It shows how interactions with other non-legal understandings, principles and realms such as economic, social, environmental and cultural ones, are mediated*.

An example of this contribution may be seen in relation to natural resources management, particularly unconventional gas. The thesis demonstrates how (non-legal) environmental principles and obligations aimed at protecting and nurturing the earth, and enunciated in the Earth Charter, may come into conflict with legal understandings of environmental obligations, as captured in specific legislation which permits the issuance and use of petroleum titles. This particular interaction between legal and non-legal realms may, as the publications demonstrate, be largely mediated or reasoned through an ethical or moral lens so that infringements of the Earth Charter on one hand, and application of the law which grants petroleum titles on the other, are both characterised as unethical. They both cause environmental harm (see *Frack Off*). If, in turn, the Earth Charter is used as a benchmark by which legal decision-making (about the issuance of petroleum titles, for example) is adjudged, non-legal understandings, such as environmental understandings, may find expression in law's domain (without being formally incorporated into it).

Favelas provides another example of how interactions with non-legal understandings and principles may be mediated. It demonstrates how interactions involving (informal) social understandings of land rights, transfers of title and land use have been mediated outside the law, in the volatile world of Brazilian drug gangs. Meanwhile *Cyberspace* demonstrates how interactions involving social understandings of property may be mediated in conjunction with legal understandings.

(2) *It shows how contested claims may be managed*.

Through the native title publications the thesis demonstrates how contested claims arising in two different legal systems may be managed (and resolved) if

the relevant legal factors are present and if there is careful judicial reasoning, a willingness to envision the experiences of the 'other', flexibility in judicial process (for example, hearing evidence outside the courtroom), the introduction of respected mechanisms to process claims (for example, the Native Title Tribunal) and ultimately the willingness of the wider community to accept the evolution of a more inclusive kind of property law (see *Radical Title and Native Title Chapter*).

Meanwhile, the thesis in *Frack Off,* provides another example of the way in which contested claims about property may be managed — in that case through resistance. *Frack Off* highlights the conduct of citizens (such as those involved in the Lock the Gate Alliance) who, in order to address disagreement, opt to engage in a form of grass-roots level governance, governance by protest.

(3) *It helps frame further legal inquiry and analysis which, in turn, are important in setting and developing research agendas and contributing to the development of a law reform agenda*.

An example where the thesis helps frame further legal inquiry is found in the discussion of whether recycled water from sewage should be 'owned' by individuals or be returned to the common pool for all to share, albeit at a different stage in the water cycle. Another example is in regard to water trading and the nature of the entitlements being traded. The publications which discuss water trading reveal how the question of whether water access licences are property rights, still remains unsettled. Additionally, both *Native Title Chapter* and *Torrens Chapter* specifically contain sections entitled 'Reform' in which questions and issues needing further judicial or legislative attention are highlighted, revealing how the thesis helps to frame further legal inquiry and contributes to the development of a law reform agenda.

(4) *It helps shape how members of other, non-legal disciplines see and engage with property*.

The explanations, analysis, interpretation and application of property-related concepts at the four sites discussed in this thesis help shape how non-legal disciplines view and engage with property. Property's relationship with other

legal fields (such as contract or passing off) as well as with related non-legal disciplines and sectors, is explored.[14] The publications engage with the fields of hydrology, engineering, environmental management, history, political science and information technology for example. Accordingly, one of the aspects which makes this thesis distinctive is its ability to assist non-legal scholars (as well as legal scholars) appreciate the strengths and limitations of the property concept and to understand better property's capacity and application as a mechanism of governance.[15] Consequently, a number of issues become relevant, such as property as a tool of social organisation, a reflection on the role of place, a tool of democracy facilitating engagement with others, and/or a mechanism assisting the development of autonomy. Further, by acting as a bridge between different fields, the publications aid both trans-jurisdictional and trans-disciplinary conversations and governance, in the process de-mystifying complex legal issues, doctrines, rules, case law, and questions of statutory interpretation. They contribute to the broader array of approaches which a growing body of socio-legal literature suggests is vital to a full understanding of the term 'property'.[16]

The selected sites of native title, water, unconventional gas and cyberspace permit an examination of the multi-dimensional relationships[17] which are commonly hallmarks of the connections between property and emerging fields, while the discussion of property at those sites demonstrates novelty, particularly because several of the sites reveal under-investigated issues. Although some of the questions the thesis asks may not be new, the context in which they are asked is new, thus revealing fresh perspectives.

[14] Each publication does not necessarily perform all roles. Among non-legal sectors (other than those listed above) are geography, economics, sewage, taxation and Indigenous studies.
[15] Supporting emails available on request.
[16] David S Cowan, Lorna Fox O'Mahoney and Neil Cobb, *Great Debates in Property Law* (Palgrave Macmillan 2012) ch 1, 1.
[17] Also see Kevin J Gray and Susan Francis Gray, *Elements of Land Law* (5th edn, OUP 2009) ch 1.2.

PART 2

Property

Observations

Three observations about property are relevant at this point. They are that:

(a) Property is a social institution[18] with a legal dimension. It consists of the technical legal rules delineating the rights and duties of owners, as well as the formal mechanisms which effectuate fragmentation and transfer. It also consists of the values underpinning those rights, duties and mechanisms: values which form the basis of the various justifications for property.

(b) There is little agreement on the justifications for property;[19] justifications which include the economic justification,[20] the labour justification,[21] the utilitarian justification,[22] the social vision justification,[23] the justice and equality justification,[24] and feminist justifications.[25]

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[18] Carol M Rose, *Property and Persuasion: Essays on the History, Theory, Rhetoric of Ownership* (Westview Press 1994) discusses how property either defies definition or is a contested term.

[19] Waldron observes that some commentators argue property defies definition: Jeremy Waldron, *The Right to Private Property* (Clarendon 1998) 26. It is at least an essentially contested concept.

[20] See Richard A Posner*, Economic Analysis of Law* (Aspen Publishers & Co 2003); Alison Clarke and Paul Kohler, *Property Law: Commentary and Materials* (CUP 2005) 42–50; Carol M Rose, 'Economic Claims and the Challenges of New Property' in Caroline Humphrey and Katherine Verdery (eds), *Property in Question: Value Transformations in the Global Economy* (Berg 2004).

[21] John Locke, 'Second Treatise on Government' in Peter Laslett (ed), *John Locke: Two Treatises of Government: A Critical Edition with an Introduction and* Apparatus Criticus *by Peter Laslett* (CUP 1964) ch V 'Of Property' 306–307 [28].

[22] Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (first published 1789) cited in Gregory S Alexander and Eduardo M Peñalver*, An Introduction to Property Theory* (CUP 2012) 12. For additional ways of conceptualising and defining property, see JE Penner, *The Idea of Property in Law* (OUP 1997) 71: Property is the area of law 'grounded by the interest we have in things'; Hanoch Dagan, 'The Craft of Property' (2003) 91 Cal L Rev 1517 (Property serves a multitude of human purposes); Margaret Jane Radin, 'Property and Personhood' (1982) 34 Stan L Rev 957 (Part of achieving proper self-development); Larissa Katz, 'Exclusion and Exclusivity in Property Law' (2008) 58 U Toronto LJ 275.

[23] Singer, *Entitlement: The Paradoxes of Property* (n 5).

[24] Karl Marx, *Theories of Surplus Value* (*Theorien über den Mehrwert*, first published in English, 1905–1910, GA Bonner and Emile Burns trs, Lawrence & Wishart 1954). Marx argued that

(c) Property is the 'institution by means of which all societies regulate access to material resources or things'[26] and because property regulates access to things, it raises questions about what we propertize,[27] how we share or distribute property rights,[28] and the rights we have when we do propertize.[29] The answer to why something is mine, yours or ours will be heavily dependent on the justifications on which the relevant society relies. Distribution and protection of distributed resources is a justificatory question. It is essentially a distributive justice question.

The 'bundle of sticks' conception

Why examine it?

As this thesis does not set out to develop a new theory of (that is, a normative justification for) property, I do not analyse the existing justifications above. That is the task of another thesis — perhaps one which seeks to expose the weaknesses and gaps which a new theory of property would address. Instead, I turn here to conceptions of property because they are important to the issue of property's potential and capacity.[30] In particular, I explain and critique the bundle of sticks conception which is currently one of the most prominent conceptions. Indeed Alexander argues that, '[n]o expression better captures the

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private property (that is, ownership of the 'means of production') is a tool of oppression. He distinguished between it and personal property (defined as consumer goods).

[25] Lorenne MG Clark, 'Women and Locke: Who Owns the Apples in the Garden of Eden' in Lorenne MG Clark and Lynda Lange (eds), *The Sexism of Social and Political Theory: Women and Reproduction from Plato to Nietzsche* (University of Toronto, 1979) 33; Carol M Rose, 'Women and Property: Gaining and Losing Ground' (1992) 78 Va L Rev 421.

[26] BJ Edgeworth, CJ Rossiter, MA Stone and PA O'Connor, *Sackville and Neave: Australian Property Law* (8th edn, Lexis Nexis 2008) 1.

[27] Re the human body, see Donna Dickenson, *Property in the Body: Feminist Perspectives* (CUP 2007). Note: in France the body is a thing outside trade and commerce — '*une chose hors commerce*'. Dickenson cites (at 3): Anne Fagot-Largeault, 'Ownership of the Human Body: Judicial and Legislative Responses in France' in Henk AMJ ten Have and Jos VM Welie (eds), *Ownership of the Human Body: Philosophical Consideration on the Use of the Human Body and its Parts in Healthcare* (Kluwer 1998) 115–40 at 130.

[28] See *Mine or Ours*.

[29] Joseph L Sax, *Playing Darts with a Rembrandt: Public and Private Rights in Cultural Treasures* (University of Michigan 1999). Also discusses culture as property.

[30] The different conceptions of property include: the essentialist conception and the functionalist conception. For the former, see Merrill, 'Property and the Right to Exclude' (n 10) 730. Compare Kevin Gray, 'Pedestrian Democracy and the Geography of Hope' (2010) 1 Journal of Human Rights and the Environment 45, which indirectly reveals some of the weaknesses in Merrill's approach. Re the functionalist conception, see also Waldron (n 19).

modern legal understanding of ownership than the metaphor of property as a "bundle of rights"',[31] suggesting that it is an appropriate choice for further consideration.

My specific purpose in discussing the bundle of sticks conception is twofold. First, I seek to demonstrate that far from there being a shared understanding of property to which everyone subscribes or if there is not, that we can all intuit enough of a common understanding to make analysis and dialogue meaningful, property is a nuanced, dynamic[32] and contested concept with a relationship to the wider world. It is important to remain mindful of its complexity lest we begin to reify the concept and lose a sense of the relationships and values that underpin it. Reification may mean that the social relationships underpinning it come to be represented simply as a series of relationships between traded objects. Abstraction may lead to an obscuring of elements such as 'place' and 'thingness', making it easier to ignore the asset, or in the case of land or water, the environment. The kinds of values that reification may cause to be lost relate to democracy, self-interest, social order, community-building, fairness and freedom, for example.[33]

Yet those values are important to decision-making. As Singer notes, property involves making 'value judgements about how to choose between conflicting interests. ... Dealing with these conflicts brings questions of political and moral judgment *inside* the property system itself'.[34]

The second reason I explore the bundle of sticks approach is to help demonstrate property's potential. Under the bundle of sticks conception, property may be fashioned by reliance on different sticks in different circumstances and contexts. Hence a study of the bundle of sticks approach permits a better understanding of the possibilities and capacity of property. It gives an idea of the flexibility — although not infinite malleability — of

[31] Gregory S Alexander, *Commodity and Proprietary: Competing Visions of Property in American Legal Thought* (1st edn, University of Chicago, 1997) 319. See also JE Penner, 'The "Bundle of Rights" Picture of Property' (1996) 43 UCLA L Rev 711, 712; Penner, *The Idea of Property in Law* (n 22).
[32] See Elizabeth Cooke, *Land Law* (2nd edn, Clarendon 2012) 1.
[33] Gregory S Alexander and Eduardo M Peñalver, *An Introduction to Property Theory* (CUP 2012) 6 refers to values such as 'human autonomy, self-realization, aggregate well-being or some combination of these.'
[34] Singer, *Entitlement: The Paradoxes of Property* (n 5) 7.

property.[35] Equally, where the bundle of sticks approach reveals weaknesses and shortcomings (as I argue it does because in relation to the environment) awareness will enhance our understanding of the limits of property law.

Background and discussion

The bundle of sticks approach offers a contra position to the earlier, absolutist view ascribed to Blackstone when he described property as 'that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe'.[36]

According to Felix Cohen, the bundle of sticks approach envisages property as a bundle of individual rights or incidents that are held by way of relations between people.[37] Such a conception arguably promotes flexibility by, for example, allowing a degree of variation in the sticks that comprise the bundle (see *Native Title: A Proprietary Right?*; *Native Title Chapter*; and *Unspeakable*) and by permitting relational fragmentation,[38] particularly temporally and spatially. It also allows one property right/incident to be framed as relatively better than another, meaning that property is not conceived of as 'monolithic'[39]

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[35] Bill Maurer, '"Forget Locke" From Proprietor to Risk-Bearer in the New Logics of Finance' (1999) 11 Public Culture 365, 370 quoted in Nicole Graham, *Lawscape* (Routledge 2011) 142. I reject the idea that property is infinitely malleable. I maintain it has limits despite its flexibility and expandability. *Mabo* demonstrated this.

[36] William Blackstone, *Commentaries on the Laws of England* (Dawsons 1966) vol 11, 2. Carol M Rose, 'Canons of Property Talk or Blackstone's Anxiety' (1998) 108 Yale LJ 601 questions whether Blackstone actually held this view that has been attributed to him. See also David B Schorr, 'How Blackstone Became a Blackstonian' (2009) 10 Theoretical Inquiries in L 103. Still earlier scholars rejected the concept of property as absolute, such as Thomas Aquinas when he discussed the concept relative to the Christian Decalogue. See Thomas Aquinas Summa Theologiae [1272] in Paul E Sigmund (ed, tr), *St Thomas Aquinas on Politics and Ethics* (WW Norton 1988) [selections: new translation, backgrounds, interpretations].

[37] Felix S Cohen, 'Dialogue on Private Property' (1954) IX (2) Rutgers L Rev 357, 378 thought 'property essentially involves relations between people' and the idea of property as 'a dyadic … relation between a person and a thing' was to him a 'confusion'. Note others, such as Morris Cohen, see property as a relationship between an owner and others in relation to a thing. Morris R Cohen, 'Property and Sovereignty' (1937) 13 Cornell LQ 8. I go on to argue that the 'thing' part of this formulation is being forgotten.

[38] Daniel B Klein and John Robinson, 'Property: A Bundle of Rights? Prologue to the Property Symposium' (2011) 8(3) Econ J Watch 193. Note: relational fragmentation involves the splitting up of entitlements in a resource by way of the tenure and estates doctrines, future interests and co-ownership, for example.

[39] Jane B Baron, 'Rescuing the Bundle-of-Rights Metaphor in Property Law', (2014) 82 1) Cincinatti L Rev 57, 58.

but rather as being composed of pieces or sticks of varying benefit and potency[40] (see *Torrens Chapter*).

Histories of the bundle of sticks concept of property commonly hark back to Hohfeld,[41] although Hohfeld did not actually employ the term 'bundle of rights'/sticks himself.[42] His analysis of legal rights in terms of 'component jural correlatives and opposites'[43] has, however, been said to provide 'an intellectual justification'[44] and 'analytic vocabulary'[45] for the bundle of rights approach. The Hohfeldian approach, based as it was on jural relations, is therefore often said to have laid the foundation for the later development of the bundle of rights approach, an approach emphasising relations as between people rather than any direct relationship between people and the thing or place in which the thing exists.

According to Baron,[46] the next development in this history of the bundle of rights approach involved legal realists who variously have been said to have 'popularised'[47] the Hohfeldian social conceptualisation of ownership, 'embraced'[48] the bundle of rights approach, and/or 'co-opted'[49] or 'appropriated' it.[50]

The bundle of sticks concept was later deconstructed by Honoré, who offered specific examples of what he called the 'incidents' of property, not all of which he believed were required to be present concurrently in order to demonstrate the existence of property. Honoré's list includes incidents such as: 'the right to possess; the right to use; the right to manage; the right to the income which a

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[40] ibid.
[41] Wesley N Hohfeld, 'Some Fundamental Legal Conceptions as Applied in Legal Reasoning' (1913) 23 Yale LJ 16. See also JE Penner, 'Hohfeldian Use-Rights in Property' in JW Harris (ed), *Property Problems: From Genes to Pension Funds* (Kluwer1997).
[42] John Lewis seems to be the first person to use the bundle terminology. John A Lewis, *A Treatise on the Law of Eminent Domain in the United States* (Callaghan & Co 1888) 43.
[43] Baron (n 39) 62.
[44] Thomas W Merrill and Henry E Smith, 'What Happened to Property in Law and Economics?' (2001) 111 Yale LJ 357, 365.
[45] Stephen R Munzer, *A Theory of Property* (CUP 1990) as cited in Baron (n 39) 62.
[46] Baron (n 39) 63.
[47] Gregory S Alexander, *Commodity and Propriety Competing Visions of Property in American Legal Thought* (University of Chicago 1997) 319.
[48] Thomas W Merrill, 'The Property Prism' (2011) 8(3) Econ J Watch 247, 248.
[49] Eric R Claeys, 'Property 101: Is Property a Thing or a Bundle?' (2009) 32 *Seattle U L Rev* 617, 635.
[50] ibid 636. Note: Hohfeld is not generally thought to have been a legal realist.

thing generates'; the right to the thing itself (which he calls 'the capital'); 'the right to security; the right to transmissibility'; the potential indefinite duration of holding the interest ('the absence of term'), 'the duty to prevent harm'; the liability to satisfy debt (that is, 'the liability to execution'); and 'the incident of residuarity' (that is, the right for the full interest to blossom again after the determination of any lesser interests burdening it).[51] It has been suggested that Honoré's incidents are not unlike Wittgenstein's 'family resemblance concepts'[52] in that they share 'a great deal with one another, but there is no definitive set of characteristics that they invariably have'.[53] Hence it is not possible to provide a simple check list of the sticks required to demonstrate ownership although some scholars assert that, in reality, only one stick is determinative of property — the exclusion stick.[54]

One of the key features about the bundle of sticks/rights conception is, as noted above, that it emphasises people to people relationships, which (at one level at least) is appealing because it acknowledges that property is a human construct and people's relationships with each other are embedded in that construct.[55] This understanding of property takes heed of the fact that no amount of my repeating to a chair, car or horse that it is mine will, in fact, make it mine. I need other people to recognise, support and respect that it is mine and without their recognition (upheld by law enforcing institutions) I will have trouble establishing a proprietary right.

Additionally, the bundle of rights approach also recognises that more than one person may hold sticks in the bundle. Hence I may have the power to control aspects of land while I am the lessee or life estate holder but you may have the power to control other aspects while you hold the reversionary fee (for example, you could mortgage the same land). This conceptualisation fits nicely with the

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[51] From AM Honoré, 'Ownership' in Anthony Gordon Guest (ed), *Oxford Essays in Jurisprudence* (Clarendon 1961) 107–47 summarised in Janice Gray, Brendan Edgeworth, Neil Foster and Shaunnagh Dorsett, *Property Law in New South Wales* (3rd edn, LexisNexis 2012) 5; Alexander and Peñalver (n 33) 4.
[52] Ludwig Wittgenstein, *Philosophical Investigations* (GEM Anscombe tr, Macmillan 1953) 80.
[53] Alexander and Peñalver (n 33) 5.
[54] Merrill, 'Property and the Right to Exclude' (n 10) 730; Merrill and Smith (n 44) 360. See Cooke (n 32) 4 who observes ownership of a freehold estate, would involve a more extensive bundle of sticks/rights than would ownership of a lease. Note: Ronald Coase saw property as 'just a bundle of *in personam* rights': Merrill and Smith (n 44) 360.
[55] Of course, there is also the negative of dephysicalisation, discussed later.

spatially and temporally fragmented nature of property rights which we have come to enjoy.[56]

Problems with the bundle of sticks approach

By-passing the environment

Yet the bundle of sticks metaphor (and variations on it) have their critics, leading to alternative definitions, formulations, explanations and conceptions of property being generated. One concern about the bundle of sticks/rights approach which has emerged in recent times and which is particularly important to this thesis is whether it permits or causes property to be seen as a conglomeration of disaggregated rights disconnected from the particular thing they govern.[57] On this reading recognition and acknowledgement of the connection between society's actions and the physicality of the 'thing'[58] may be diminished, potentially leading to outcomes which fail to support ecologically sustainable development and or environmental resilience[59] (*see Frack Off, Fracking Story, Mine and Ours, Dollars and Dreams, Unspeakable, Water: Brazilian Chapter,* and *Overwhelming Success*). In common parlance, it may lead to an 'out of sight, out of mind' approach placing a distance between law and the object of its governance. Hence the reality of the 'thing' (such as a dry river, a polluted watercourse or degraded land) may be obscured, making its effective governance more problematic. In summing up how property has become 'dematerialised' and 'denatured' Pottage states 'property has become a weightless institution: things are fungible, rights are tradeable, and the effects of institutions are eclipsed by a fetishism of technicalities'.[60]

Another related concern is that the bundle of sticks approach, in emphasising rights and relationships between people, causes it to develop an anthropocentric focus. It puts human beings and the (abstract) rights they create at the centre of the legal narrative on property and potentially further

[56] See the doctrines of tenure and estates, and future interests, for example.
[57] Nicole Graham, 'Dephysicalisation and Entitlement: Legal and Cultural Discourses of Place as Property' in Brad Jessup, and Kim Rubenstein (eds), *Environmental Discourses in Public and International Law* (CUP 2012).
[58] Clearly not all property has a physical element.
[59] On property and conservation, see Barton H Thompson Jnr and Paul Goldstein, *Property Law: Ownership, Use and Conservation* (2nd edn, Foundation 2014).
[60] Alain Pottage, 'Foreword' in Nicole Graham, *Lawscape* (Routledge 2011) ix.

contributes to the 'dephysicalisation' of the thing or resource with which the legal concept of property is concerned.[61] It is somewhat disconcerting that under this conception the 'real' element may be disappearing from 'real property'.[62]

Place is *important*

Yet materiality is an inescapable fact of natural resources. Natural resources exist in particular places and at particular times. Land in a desert is clearly different from land on the coast, and land in a city is not the same as land in rural environs. To conceptualise property in such a way as to allow this reality to be overlooked is potentially to contribute to a form of environmental blindness. Harm may occur with impunity, and obligations to nurture and protect — which may have once arisen from the connection between people and place — may be lost. Dephysicalisation may mean that the significant deleterious effects of poor management on natural resources are underplayed, perhaps explaining why modern property law is, according to some scholars, proving inadequate.[63] It may permit certain activities or dealings to occur without sufficiently addressing their implications in a specific place. (The Barmah Choke example, discussed in *Dollars and Dreams* exemplifies the importance of place and the constraints which it imposes on the smooth functioning of property-related fields such as water trading.)

Indeed under the bundle of sticks approach, place-specific responses are difficult to fashion. Where property law is dephysicalised, it is left to planning and environmental law to inject a sense of place and location into many non-place relations, but the present parlous state of the environment suggests that

[61] Dephysicalisation involves removing the physical 'thing' from the property relationship and instead focusing on abstract rights. Note: Jeremy Bentham is often credited with starting the movement in favour of dephysicalised property, thereby taking a different stand from Locke and Blackstone, who saw an entitlement to property as vesting in natural rights or natural law. Note, however, that Bentham did not 'invent' the idea that property (in land, for example) was an abstract legal right possessed by a person. Instead, he built on the pre-existing and accepted idea that property (such as land) was an object based on an abstract legal right held by a person. To Bentham, property is grounded in positive law. See Nicole Graham, *Lawscape* (Routledge 2011) 135.
[62] Real property is related historically to real actions but this is a play on the word 'real'.
[63] Graham *Lawscape* (n 61) 20.

those legal fields have not been highly successful.[64] Yet, place is as important as ever to environmental outcomes.

However, while the absence, or at least diminution, of place in the bundle of sticks conception of property may be problematic, in other conceptions of property (or land and water relationships) the role of place and physicality is arguably overplayed. Rather than being ignored, place has been imbued with great potency and power. Place has been held to matter to such an extent that it has proved disruptive to the recognition of rights. The discourse on native title demonstrates this point (see *Lost Promise*, *Native Title Chapter*, *Radical Decision*, and *Native Title: A Proprietary Right?*). In the native title context, the demands of proving an ongoing connection to land and/or water *in a certain place* (connection to country) evidenced through customs and traditions, have made it extraordinarily difficult for Indigenous people to establish native title rights over land and/or water.[65]

We can, therefore, see that questions of place in disputes over property may, under different conceptualisations, be both ignored and embraced but where they are ignored (as they may be under the bundle of rights conceptualisation), the repercussions for the environment may be negative. Property may become complicit in environmental degradation under this conceptualisation because it helps shield people from facing the consequences of their actions in relation to things such as natural resources. Property may contribute to the absence of environmental 'reality-checks' and harm may be harder to notice. Opportunities for physical contextualisation may be lost, meaning that all resources may, from a property perspective, be potentially treated as the same. The importance of place may be by-passed. Hence groundwater may form the subject of a trade in access rights in much the same way as surface water access rights may form the subject of a trade, yet the water in each case exists in very different places/locations raising different hydrological and topographical issues, for

[64] For example that the Great Barrier Reef, Australia, is dying. See Greg McIntyre, 'International Law Protecting the Great Barrier Reef' (National Environmental Law Association conference, Sydney, November 2014) <www.nela.org.au/NELA/Documents/Greg-McIntyre.pdf> accessed 28 February 2016.
[65] See National Native Title Tribunal site for statistics on claims <www.nntt.gov.au/Pages/Home-Page.aspx> accessed 21 March 2016.

example.[66] Those differences may be environmentally significant and if the reality of place is erased, there may be serious implications for the protection of natural resources. (In the unconventional gas space, for example, it has been observed that 'once relatively quiet rural locations such as farms and national parks … [may] become hives of industrial and commercial C(oal) S(eam) G(as) activity.'[67] Unconventional gas pipe networks may criss-cross farms reducing the space for cows and crops, dust levels may rise, and land may be denuded so that substantial infrastructure may be constructed.)[68]

At other times, the absence of sufficient environmental reality checks has resulted in increased salinity levels in soils (see *Contemporary Transferability*). Of course, that is not to say that all environmental harm may be attributed to the failings of the bundle of rights conception of property. It cannot, but that conception arguably contributes to harm because it may harbour an environmental scotoma. It does not encourage consideration of environmental impacts. It conceives of property in a way that fails to emphasise the relevance of situation and context. Rather, as noted above, the incidents of property are treated as a collection of disaggregated rights that could exist anywhere. By repressing the environment and removing materiality from the heart of the issue, 'terrestrial dimensions' are denied.[69] 'Qualities of fable' permeate conceptualisations of property with the result that reality becomes illusory.[70] The health of real rivers and streams, for example, is lost in the maze of obligations and rights. Further, under the bundle of sticks approach (and, in fact, in relation

[66] It is left up to legislative and regulatory water planning regimes to try to deal with such situations but they reveal their own sets of problems.
[67] *Frack Off* 129.
[68] For impacts of CSG on agricultural land, see Cindy Chen and Alan Randall, 'The Economic Contest between Coal Seam Gas Mining and Agriculture on Prime Farmland: It May Be Closer than We Thought' (2013) 15(3) J Ec & Soc Pol 87. For discussion of the positive and negative impacts on agricultural production, see Office of the Chief Economist, Australian Government, *Review of the Socio-Economic Impacts of Coal Seam Gas* (2015) esp 18 and 34 <www.industry.gov.au/Office-of-the-Chief-Economist/Publications/Documents/coal-seam-gas/Socioeconomic-impacts-of-coal-seam-gas-in-Queensland.pdf> accessed 26 April 2016.
[69] A term coined by Peter Fitzpatrick, *The Mythology of Modern Law* (Routledge 1992) 55 and applied in relation to Bentham's theory of dephysicalised property.
[70] This term is used by Jacques Derrida, 'Before the Law' in Derek Attridge (ed), *Acts of Literature* (Christine Roulston tr, Routledge 1992) 199.

to traditional property law more generally), there is no internal method of 'restricting *cumulative* damage to a level that is ecologically sustainable.'[71]

The importance of materiality and physicality is, however, demonstrating a re-emergence in academic property scholarship. Heller, for example, is concerned with aspects of the dephysicalisation idea when he claims that the bundle of sticks conception of property 'gives a weak sense of the "thingness" of private property'.[72] Graham[73] and Freyfogle[74] share this view to varying degrees. Meanwhile, Burdon takes the debate to another level, effectively emphasising equal 'thingness' for all aspects of what he calls the Earth Community. He argues that the institution of private property is anthropocentric and needs to be reconceived by way of a radical paradigm shift[75] towards eco-centrism.[76] His ideas, although bold, do not, however, go as far as claiming that private property is inherently inconsistent with eco-centric ethics or that private property should be dispensed with as a social institution. His views are different from, but complementary with, those of Cullinan[77] and in some ways Stone,[78] both of whom were keen to give the environment a legal voice but not necessarily by way of property rights. (Note that a step towards the Stone approach was taken in New Zealand when the status of the Whanganui River as Te Awa Tupua, an integrated living whole, was recognised and the river granted legal identity and *locus standi.*)[79]

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[71] Prue Taylor and David Grinlinton, Property Rights and Sustainability: Towards a New Vision of Property' in David Grinlinton and Prue Taylor (eds), *Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges* (Martinus Nijhoff 2011) 9.
[72] Michael A Heller, 'Boundaries of Private Property' (1999) 108 Yale LJ 1163, 1193.
[73] Graham, 'Dephysicalisation and Entitlement' (n 57).
[74] Eric T Freyfogle, *On Private Property: Finding Common Ground on the Ownership of Land* (Beacon 2007) vii.
[75] Thomas S Kuhn, *The Structure of Scientific Revolutions* (U Chicago 1996).
[76] Peter Burdon, *Earth Jurisprudence: Private Property and the Environment* (Routledge GlassHouse 2015).
[77] Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice* (Green Books 2003). Burdon's work also has resonances with that of Aldo Leopold. See, eg, Aldo Leopold 'The Land Ethic' (essay originally published 1949) in *A Sand County Almanac: With Essays on Conservation* (OUP 1949).
[78] Christopher D Stone, 'Should Trees Have Standing?: Towards Legal Rights for Natural Objects' (1972) 45 S Cal L Rev 450.
[79] See Global Alliance for the Rights of Nature, *Whanganui River Given Rights as a Legal Identity* (8 September 2012) <http://therightsofnature.org/rights-of-nature-laws/whanganui-river-given-rights-as-a-legal-identity/> accessed 24 April 2016.

How many sticks?

Another question which emerges in relation to the bundle of sticks conception is how much variation in the bundle will be tolerated? Many of the publications demonstrate that property may exist when some sticks are either absent or whittled away (*Unspeakable*, *Radical Decision* and *Lost Promise*, for example). They demonstrate that the bundle, to borrow from Hemingway',[80] is a 'moveable feast' and may be constituted by different mixes of incidents. However, whether a *mere* conglomeration of some of Honoré's 'lesser' incidents would give rise to property is more problematic as is whether the complete absence of a right to exclude would mean that property cannot exist.[81]

Although these questions are important, it is not within the scope of this thesis to answer them.[82] Instead it is sufficient to acknowledge how such questions raise the complex nature of property which may be overlooked.

Conclusion

The bundle of sticks conception demonstrates property's capacity for flexibility and the variety of ways in which property may be constituted (depending on which sticks are in the bundle). However, the approach is far from ideal, particularly because it does not sufficiently emphasise 'place' and 'thingness'. The importance of incidents being 'applied' to, or 'relating back' to, 'things' and the need to embed situation or place in the conceptual model, would seem crucial if deleterious effects on the environment are to be avoided or minimised.[83] If property is about relationships between people, it is desirable to link those relationships back to the world in which people live. Perhaps the debate should not be about whether 'the character of property [is] ultimately

[80] Ernest Hemingway, *A Moveable Feast* (Vintage 2012).
[81] See *Unspeakable* where the public utility retained property although its right to exclude competitors was cut back. Merrill claims exclusion is the *sine qua non* of property: Merrill, 'Property and the Right to Exclude' (n 10) 730; Penner, 'The "Bundle of Rights" Picture of Property' (n 31) 723 claims 'the bundle picture puts no particular constraints on the bundle'. Smith asserts (disapprovingly) that the bundle is 'totally malleable'. See Henry Smith, 'Property as the Law of Things' (2012) 125 Harv L Rev 1697.
[82] *Milirrpum v Nabalco* Pty Ltd (*1971*) 17 FLR 141 (Milirrpum) identified three key incidents.
[83] Maurice R Cohen, 'Property and Sovereignty' (n 37) referred to property being about relations between people concerning, or in relation to, things.

physical or cerebral'[84] but rather whether property can be about both. Nevertheless, despite its weaknesses, the bundle of sticks approach has a lot to commend it and discussion of the approach makes it possible better to understand how property's application and appropriateness may be tested and taken to the limits (at the four sites). It also makes it possible to appreciate the potential and limitations of property and to see the complex, nuanced and multi-dimensional nature of property which reification of the concept may obscure.

[84] Kevin Gray and Susan Francis Gray, *Elements of Land Law* (4th edn, OUP 2005) 151.

PART 3

Locating property issues

Given that this thesis is comprised of a diverse selection of publications in which the property issues may not necessarily be immediately obvious, this section outlines what is common amongst the publications making them identifiable as property-related works. It elucidates their 'propertiness'. Later in Part 3, I take these observations further by discussing and analysing five property-related themes which arise out of the publications.

Native title publications

There are five native title publications included in this thesis: *Radical Decision?, Native Title: A Proprietary Right?*, *Native Title Chapter*; *Lost Promise*; and *O Canada!*. They discuss and analyse the development of legally recognised relationships with land (and water) enjoyed by Indigenous Australians, relationships which were only formally recognised by the common law in 1992 when the *Mabo* decision was handed down.[85]

Although the whole *Native Title Chapter* actually engages with property or property-related issues (such as the role of culture in shaping legal relations with land and water; the legal history of the Indigenous struggle for land justice; the definition, proof and extinguishment of native title, and compensation for its loss), it also specifically devotes attention to the question of whether native title is a proprietary right.[86]

Together with *Native Title: A Proprietary Right*?', this chapter also considers the drivers for a proprietary characterisation of native title. Both publications also reference property in their discussions of the doctrine of *terra nullius* ('land belonging to no-one'). *Terra nullius* is a doctrine of international law but, in the Australian context at least, it is closely connected to issues of property acquisition. Reliance on the doctrine allowed the British Crown to treat New

[85] *Mabo v Queensland* (No 2) [1992] HCA 23; (1992) 175 CLR 1; Hereafter *Mabo*.
[86] *Native Title Chapter* 126.The Court was unclear if native title was personal, proprietary, usufructuary, *sui generis*, or simply afforded permissive occupancy.

South Wales as a 'settled' colony where no law of a pre-existing civilisation survived acquisition (because there was no legally recognisable pre-existing civilisation). *Mabo* overturned the *terra nullius* doctrine, arguably paving the way for the legal recognition of Indigenous peoples' relationship with land and (water), as evidenced by their customs and traditions.

Meanwhile, *Radical Decision* interrogates the issue of whether the means by which *Mabo* upheld the recognition of Indigenous peoples' relationships with land was actually radical. Did it offer a genuinely bold approach to the issue of land titling/land relationship recognition and the associated property considerations? Accordingly, that article examines the High Court's failure to pursue some potential land law consequences of the rejection of the *terra nullius* doctrine (particularly those relating to the mode of acquisition of sovereignty). Further, *Radical Decision* addresses property issues in its discussion of the source of native title, the source being Indigenous peoples' occupancy of, and connection with, land.

Lost Promise deals with property issues too, arguing that although the *Mabo* decision was symbolic in heralding an era of hope and a heightened willingness of the High Court to engage in land justice, the promise in *Mabo* has not been fulfilled. The article highlights the binary struggle for the recognition of rights in, or in relation to land, focussing on both the common law struggle and the struggle for land justice via specific land rights legislation. The article engages with the connection between native title and what Pearson refers to as 'the privileges and titles of the settlers and their descendants'[87] (privileges and titles which concern property).

O Canada is also strongly grounded in property issues. It explores the key idea that Indigenous peoples' occupancy of/and or connection to land is the source of native title but that the traditions and customs on which the connection is based may change over time. It, therefore, discusses the constitution of native title. Several of the cases discussed in this article analyse how far pre-contact traditions and customs may evolve before ongoing connection is lost.

[87] Noel Pearson as cited in *Lost Promise* 305.

Land law: Torrens title and adverse possession publications

Beyond *Native Title Chapter* the thesis includes one other chapter from my (co-authored) property law book (commonly regarded as the leading property law book in NSW and presently going into its fourth edition). It is the chapter on Torrens title. This chapter outlines, describes, examines and analyses a range of property law issues because it deals with the system of land titling which forms the backbone of modern Australian (land) property law. Those issues include: how land is brought under the Torrens system, the concept of indefeasibility of title, exceptions to indefeasibility, unregistered interests under the Torrens system, the resolution of priority disputes, caveats, the effects of registration and the Assurance Fund.

The second article on land law, *Favelas*, takes as its focus the favelas of Brazil and it considers how the formal law of adverse possession, although technically existing, tends to operate more in theory than in practice. The article explores informal land governance regimes such as those run by the drug lords operating the favelas. In so doing it considers property at the margins. (It has been re-published on request by the *Geography Bulletin*, an indication its contribution beyond law.)

Water and sewage (wastewater) publications

The publications on water and wastewater[88] all link to or reference property. For example, *Watered Down* is particularly concerned with the legal classification(s) of water. Accordingly, the article reviews the history and effectiveness of rights classifications for water including classifications such as common property, a commons, and *res communes.* It also highlights how water in flow may be classified as one form of property (for example, common or public property) but access to water may be classified differently (as for example, a right subsidiary to a realty right — a riparian right — and/or as private property).

Transforming Cultures was written for a non-legal audience but has been cited by the High Court of Australia.[89] It deals with property issues particularly those

[88] Also called black water.
[89] *ICM Agriculture Pty Ltd v Commonwealth* [2009] HCA 51; (2009) 240 CLR 140.

covering enforceability against third parties. This publication also introduces the question of what is being traded when water rights are bought and sold. Is property the subject of the trade in this emerging field?

Property or property-related issues can also be located in each of the three chapters (*Historic Non-Transferability, Object and Rationale* and *Contemporary Transferability*) extracted from my (and Gardner and Bartlett's) *Water Resources Law* book (arguably the leading Australian book in the field and now going into its second edition). For example, *Non-Transferability* has as its sub-text the issue of whether water rights were historically non-transferable because they were not property. It also ties non-transferability to understandings of water entitlements which are grounded in different cultural traditions, such as those focussing on communal ownership and which preclude the separation of water rights from other spiritual and sacred understandings of existence. Meanwhile, *Objects and Rationale* explores the basis for introducing a water governance model grounded in tradeable 'property' rights and *Contemporary Transferability* considers how a system purportedly based on tradeable property rights operates. It observes that mechanisms and principles borrowed from land law have found a place in water trading governance.

Water: Brazilian Chapter discusses new forms of regulation and governance. It discusses how water was traditionally governed as: (a) common property supplemented by a system of personal licences based on the location of land; and (b) by way of rights to receive water from public utilities. In examining the shift towards regulation and governance by markets, *Water: Brazilian Chapter* is underpinned by ideas about the role and constitution of tradeable private property rights. The chapter also prefigures the concept of the 'sharing economy', a concept which has emerged in later literature and which depends on creative means to share, allocate and transfer private property.[90]

Dollars and Dreams is also concerned with property in the context of water trading. It argues that only once the legal classification of water access entitlements (property or not?) is decided will the full ramifications of such a decision become evident. It also considers proprietary classifications and the

[90] See Bronwen Morgan and Declan Kuch, 'Radical Transactionalism: Legal Consciousness, Diverse Economies and the Sharing Economy' (2015) 42*J Law & Soc* 556.

enhancement of ecological integrity by reference to Sax's work on the *jus abutendi* (right to abuse). Meanwhile *Overwhelming Success* highlights how the key case, *ICM Agriculture Pty Ltd v Commonwealth,* did not actually decide the issue of whether newly-styled water access entitlements were property (although many misinterpretations of the case have suggested that it did.)[91]

The two publications on wastewater (sewage), *Unspeakable* and *Mine or Ours*, cover quite similar ground but have been fashioned so as to speak to different audiences.[92] Both were commissioned. They reference property issues in their discussion of how scarcity (in this case, scarcity of water) may have the effect of drawing something (in this case, sewage) into the proprietary paradigm. Accordingly, they discuss the commodification of sewage and its relationship to measures aimed at supplementing water sources. Additionally, these publications indirectly prefigure a property discussion which emerges in some of the 'infrastructure' literature about the tension between exclusivity and access.

Unconventional gas publications

Frack Off and *Fracking Story* also discuss property and/or property-related issues. *Frack Off* considers how land owners' property rights are potentially and practically affected by the exercise of the personal property rights of unconventional gas proponents who hold petroleum titles. Therefore, it considers land access arrangements as part of the discussion. It also outlines the property rights held by the Crown over unconventional gas and explains the interaction between these and petroleum titles. *Fracking Story* indirectly considers how weaknesses in the legal and regulatory regimes for unconventional gas impact on landholder property rights, common property and the common heritage of humankind. In particular, it analyses how the protection of common property and the common heritage of humankind may fall outside the ambit of domestic legislative and judicial protection if Australia were to sign the Trans-Pacific Partnership (TPP) trade agreement. That agreement could operate to prevent the strengthening of coal seam gas and hydraulic fracturing

[91] *ICM Agriculture Pty Ltd v Commonwealth* (2009) 240 CLR 140; [2009] HCA 51.
[92] Both these publications were commissioned.

(fracking) governance which aims to protect the environment from harm (particularly harm to land and water).

Cyberspace publications

Cyberspace analyses the taxation of virtual world assets by examining the underlying question of whether there is real-life property in a virtual persona and virtual property. In particular, it discusses the cyberspace game, *Second Life*, where real people use avatars to buy and sell 'virtual land' (and other virtual commodities) with virtual money, known as 'Linden dollars'. Real people may then exchange Linden dollars for real currency (such as US dollars). One of the legal considerations is, therefore, whether virtual property actually constitutes property at all and if it does whether any taxation liabilities flow from transactions involving virtual property. Hence the article discusses property, passing off, breach of confidence, contract, and taxation for example and appears to some extent to foreshadow Baron's conclusion that other electronic data — health records — exist in a 'netherworld between property, privacy and intellectual property'.[93]

Development of submitted publications

The publications from my book *Property Law in NSW* (*Torrens Chapter* and *Native Title Chapter*) and the other native title publications confront and interrogate fundamental land law concerns and issues. They outline technical rules, explain doctrinal intricacies, and in many cases discuss the values underpinning land law. The later publications rely on that deep and detailed knowledge to identify and analyse property issues at often obscure and emerging sites, such as water, unconventional gas, and cyberspace. Hence the later publications may be seen as evolving out of the earlier ones. Their historical genesis is in the earlier work and they demonstrate how key property concepts may play out, be transported and be refashioned in emerging sites. Accordingly, the submitted publications demonstrate how (real) property law may act as a portal for entry into other jural spaces. In these spaces property may facilitate, and arguably provide the basis for, currently popular forms of

[93] Baron (n 39) 5.

governance and regulation, issues discussed in some of the later publications, particularly those on water and unconventional gas.

Five Themes

In addition to the key unifying argument that property is not necessarily a panacea but rather its effectiveness is contingent on purpose, five themes emerge from the publications. They link back to the unifying argument. The themes help give the thesis shape, form and coherence. They are:

(1) *There are economic, social, environmental and cultural understandings of property as well as legal understandings*[94]

(2) *Tensions exist between the different classifications of property interests — for example, public, common, and private property*[95]

(3) *Property may be used to support markets and trading, and markets and trading may help define property*[96]

(4) *Tensions exist between notions of flexibility and fixity in the property space*[97]

(5) *Context is important and property's significance may be mediated through resistance and conflict*[98]

Theme 1 – *Economic, social, environmental and cultural understandings of property as well as legal understandings exist*[99]

Although shaped by the conceptions of, and justifications for, property referred to above, property's legal meanings are largely dependent on the common law, legislation and increasingly regulation. Such dependence is both fundamental

[94] Evident in *Lost Promise; O Canada; Radical Decision; Native Title Chapter.*
[95] Evident in *Fracking Story; Frack Off*; *Dollars and Dreams*; *Mine or Ours*.
[96] Evident in *Dollars and Dreams*; *Objects and Rational*; *Historic Non-transferability; Watered Down*; and *Contemporary Transferability.*
[97] Evident in *Unspeakable*; *Lost Promise*; *Native Title: A Proprietary Right?*; and *Radical Decision.*
[98] *Radical Decision;* and *Mine or Ours*.
[99] Evident in *Lost Promise*; *Native Title: A Proprietary Right?*; and *Radical Decision*.

to, and proper for, the functioning of the legal system and the maintenance of good order. However, the inter-disciplinary nature of many of the publications in this thesis reveals that there are also economic, social, environmental and cultural understandings of property. Those understandings may coalesce and/or clash with, or run parallel to, legal meanings. Hence there may be competing and intersecting views of property.

Whilst it is not suggested that legal understandings should simply yield to alternative understandings — that would be undesirable — there *are* circumstances in which it may be appropriate for alternative understandings of property (or land and water relationships if that is a more apt term) to be recognised by the dominant legal system.[100] (This is demonstrated in the native title publications and is raised by the water trading publications.) At other times it will be sufficient merely to acknowledge and respect alternative understandings but keep them outside legal understandings as is the case with some popular understandings of property. Yet even without direct incorporation, alternative understandings of property may still exert (important) influence on the development of property law as is the case with popular understandings (see *Frack Off* and *Fracking Story).*

Three points should be noted in relation to non-legal understandings of property. One is that none of the understandings discussed below is static. For example, cultural understandings of property historically have altered to accommodate and legitimise economic development and more recently they, together with environmental, social (and indeed, legal) understandings, have altered in response to the public's growing concern for land and water protection.[101]

The second point is, just as there is not one single legal understanding of the term 'property', there is also not one single economic, social or cultural

[100] It is difficult to find language that translates well across different understandings of property. Additionally the underlying issue of the non-commensurability of concepts between cultures causes 'translation' problems.

[101] Eric T Freyfogle, *The Land We Share: Private Property and the Common Good* (Island Press 2003) argues that certain US state court decisions recognise that law needs to apply differently to ecologically different areas of land. One potential consequence of this recognition is that property owners will come to appreciate that their rights in property also involve a corollary of increased obligations to protect ecological health.

understanding of it either. The third point is that the boundaries between these understandings of property are often blurred and there is commonly slippage between the categories.

Economic understandings

At its simplest, economic understandings of property may be summarised by the aphorism 'if it can be traded, it is property'.[102] Such understandings are rooted in a law and economics approach which upholds the view that people make reasoned choices to maximise their well-being or utility,[103] and those choices, in turn, lead to the promotion of efficiency and wealth maximisation, which benefit all of society. In Singer's words '[l]awyers who adopt the economic model … presume that the most efficient system of property law identifies an owner for every valuable, scarce resource and allows free transfer of those property interests through market exchanges.'[104] Hence on this view the more private property there is, the better. Proponents would like private property to be universal and they see ownership as 'gospel'.[105] A failure to propertize, it is argued, results in the over-exploitation of common property by rapacious human beings and the emergence of free riders who consume more than their fair share of a resource or service and do not pay a fair amount (see *Watered Down*).[106]

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[102] See Kevin J Fox, R Quentin Grafton, Dale Squires, 'Private Property & Economic Efficiency: A Study of a Common Pool Resource' (2000) 43(2) J Law Econ 679; Neal Hughes, *Capacity Sharing and the Future of Water Property Rights* (Economic Society of Australia (NSW Branch) Seminar, 17 September 2015, MLC Centre, 19 Martin Place, Sydney); National Water Commission, '10 Years of Water Wins: Australia's National Water Initiative' (Commonwealth of Australia 2014). See also, National Water Commission, *Water Markets in Australia: A Short History* (Commonwealth of Australia 2011) 12 <www.nwc.gov.au/__data/assets/pdf_file/0004/18958/Water-markets-in-Australia-a-short-history.pdf>, which simply assumes that water entitlements and allocations are property and refers to 'the mix of *water property rights* traded in the Australian water markets' (emphasis added).

[103] Richard A Posner, 'Some Uses and Abuses of Economics in Law' (1979) 46(2) U Chi L Rev 281; Richard A Posner, *Economic Analysis of Law* (9th edn, Aspen 2014); see also Clarke and Kohler (n 20) 42–50.

[104] Joseph William Singer, *Entitlement* (Yale UP 2000) 5. See also Posner, *Economic Analysis of Law* (7th edn, Little, Brown & Co 1973, n 103). Contra see, Duncan Kennedy and Frank Michelman, 'Are Property and Contract Efficient?' 9 (1980) Hofstra L Rev 711.

[105] Singer, *Entitlement* (n 104) 4.

[106] Garrett Hardin, 'The Tragedy of the Commons' Science, vol 162 iss 3859 (13 December 1968) 1243–48. See Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (first published 1990, 29th printing CUP 2011) for a critique of Hardin's view.

Economic tools such as the 'rational actor model of human behaviour' and 'game theory' are used 'to explain or make predictions about the various consequences of different legal regimes'.[107] However, perhaps one of the more interesting ways of framing inquiry into economic understandings of property is by reformulating the inquiry. Rather than concluding that if something can be traded it must be property, it may be more helpful to ask instead: 'Is there anything that can be traded which is not property?' If there are things which can be traded outside the property paradigm, then property will not necessarily be the tool which moves 'things' from low value use to high value use, for example. The importance of property may be reduced. Rather than property being a panacea, it could come to be seen as superfluous, unnecessary or redundant in the quest for desired outcomes (see Theme 3).

Social understandings

Social understandings of property tend to be broader than legal understandings. They are connected to the idea of social (rather than economic) exchange. According to some scholars, we engage in the social exchange[108] of property more frequently and with greater emotional involvement than we engage in economic exchanges.[109] Social understandings of property are also commonly linked to symbolic meanings. Money and property may involve more than economic exchange. They may symbolise wealth and flag inequality.[110]

According to Veblen property is '[t]he most easily recognised evidence of a degree of reputable success'. It is '"the badge of efficiency" [which is] itself intrinsically honourable and confers honour on its possessor'.[111] People, therefore, accumulate property as part of their desire to demonstrate

[107] Alexander and Peñalver (n 33) 18. However, market distortions and unexpected economic collapses such as the 2008 Global Finance Crisis reveal that human behaviour is often not rational nor markets predictable.
[108] Robert E Babe, 'Economics and Information: Toward a New (and More Sustainable) World View' (1996) 21(2) Can JCommun <http://cjc-online.ca/index.php/journal/article/view/937/843> accessed 11 April 2016.
[109] Kenneth O Doyle, *The Social Meanings of Money and Property: In Search of a Talisman* (Sage1999) 5. Doyle explains, an example of a social exchange would be a greeting card to wish someone 'happy birthday'.
[110] On' private property' and inequality see Marx, *Theories of Surplus Value* (n 24).
[111] Thorstein Veblen, *The Theory of the Leisure Class: An Economic Study of Institutions* (first published 1899 BW Huebsch) as quoted in Kenneth O Doyle, *The Social Meanings of Money and Property: In Search of a Talisman* (Sage1999) 11.

achievement and display honour. Extending this approach Mead concluded that property plays a role in developing social identity.[112] Hence social understandings of property are often linked to concepts of self-worth and success.

The publication, *Favelas*, taps into social understandings of property. It demonstrates how the 'favelados' (favela dwellers), who are basically property-less people, build not only shelters but a sense of self-worth, honour, pride and recognition by staking out small holdings within the favela and claiming property. They construct fragile homes from cardboard, wire and cement. They hijack electricity lines to supply power and they survive without basic services such as sanitation and potable water supplies but they have property, albeit not by way of state-sanctioned legal systems. Their property goes to building their self-identity. The spaces they appropriate are tended and 'coiffed'. Extensions are added, satellite television dishes installed and furnishings acquired. The exact location, extent and nature of their property are assessed in determining the social status of the 'owner'. Houses in narrow streets, for example, represent greater success than those in wide streets because in the former, gun 'shots [are] inclined to run the length of the street rather than penetrate the houses. It [is] more difficult to line up one's target in a skinny street.'[113] Houses in narrow streets are, therefore, safer and more coveted, and their owners are regarded as having higher social status.

Favelas, therefore, reveals how social understandings of property allow us to better understand the favelados:

> They live between two worlds and they must know the code of living in each. Theirs is an ambiguous life. On one hand they live in the designated space of the favela, but on the other they also live in the wider world, in the space of supermarkets, roads or the homes of the middle class where they work as cleaners or dog-walkers.[114]

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[112] George Herbert Mead, *Mind, Self and Society: From the Standpoint of a Social Behaviourist* (Charles W Morris ed, first published 1934, reprinted as *Mind, Self and Society [The Definitive Edition]* (Hans Joas, DanielR Huebner, Charles W Morris eds, Chicago UP 1967).
[113] *Favela*s 184, 187.
[114] ibid 188.

This article also demonstrates how social understandings of property may exist alongside legal understandings of, and technical legal rules about, property such as those relating to the law of adverse possession.[115]

Radical Decision also invokes social understandings of property in its discussion of popular non-Indigenous reactions to *Mabo*. Those reactions reveal a non-Indigenous attachment to property as a representation of security, power, wealth and social status.

The article captures the way in which some influential non-Indigenous Australians' views on self-worth and status were threatened by the recognition of native title. They saw native title as a tool reigning in their potential to build and retain wealth although such concerns were commonly disguised behind arguments about potential legal, political and constitutional crises. The High Court was accused of engaging in 'naïve adventurism' and with threatening the suburban backyards of 'ordinary' Australians.[116] Indeed much of the vituperative reaction to the recognition of native title is traceable to the way in which that concept challenged the bedrock of social relationships based on social understandings of property. Accordingly reactions to a perceived attack on self-identity and status preceded concerns that native title tainted common law legal understandings of property and had undermined the reliability of concepts such as the registered fee simple estate, lease or mortgage. This example serves to demonstrate further how social understandings of property may operate in conjunction with legal understandings or meanings.

Finally, on the issue of how social understandings of property may co-exist with other understandings of property and engage with policy and law more generally, it is instructive to consider *Water: Brazilian Chapter*. That publication infers that social understandings of property may find a home within the term

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[115] For insights into urban squatting see Robert Neuwirth, *Shadow Cities: A Billion Squatters, A New Urban World* (Routledge 2006). Note that in Brazil the statutory limitation period in relation to land was lowered to seven years in response to the growing numbers of *favelados* and the view that property needs to serve its social function. Later, approaches such as *Terra Nova Regularizações Fundiárias* were introduced to help *favelados* regularise (claim) land title. It has been observed that '[w]hen people are granted land rights and take ownership for their property, they become active agents of social and community transformation.' See also André Albuquerque, 'Squatters No More: Legitimising Brazil's Favelas', Huffington Post, 3 June 2012 <www.huffingtonpost.com/andre-albuquerque/squatters-no-more-legitim_b_1399792.html> accessed 23 May 2016.

[116] *Radical Decision* 39.

'governance'.[117] It demonstrates that 'governance in and by networks'[118] has emerged as a way to steer behaviour towards desired outcomes. Governance, therefore, usually employs a plethora of instruments such as legislation, the common law, executive action, the media, the market and other less formal tools of persuasion and incentive. It may also be seen through the lens of governmentality. Hence, as social understandings of property are commonly related to concerns about wealth, self-identity, honour and success for example, and the achievement of these qualities or outcomes is a driver for behavioural change, then social understandings of property may potentially be employed to help steer behaviour. Citizens may be incentivised to follow certain courses of conduct if they think those courses will enhance status and better allow them to be regarded as successful. On this reading social understandings of property may help guide behaviour by way of the promises, potential and aspirational paths which are embedded in those understandings.

Environmental understandings of property

One way of thinking about environmental understandings of property is to consider what an environmentalist might mean when he or she uses the term? The work of Thomas Berry and Aldo Leopold[119] offers guidance in this regard. They are concerned with 'land health',[120] which would now presumably extend to water health. Their work points to the importance of common property and *res nullius* (rather than private property) as means by which the common heritage of humankind may be protected, although as conservationists, they do not use that terminology. Leopold noted:

> Conservation is getting nowhere because it is incompatible with our Abrahamic concept of land. We abuse land because we regard it as a

[117] Over time the literature has refined the terms 'regulation' and 'governance', meaning that if I were writing *Water: Brazilian Chapter* now instead of in 2009, I might employ the terms slightly differently.
[118] Mark Bevir and RAW Rhodes, *Interpreting British Governance: How it Works, Ideas for Making it Work Better* (Routledge 2003) as cited by John Braithwaite, *Regulatory Capitalism* (Edward Elgar 2008) 1.
[119] Thomas Berry, *The Great Work: Our Way into the Future* (Broadway Books 2000); Thomas Berry, *Evening Thoughts: Reflecting on Earth as Sacred Community* (Mary Evelyn Tucker ed, Counterpoint Books 2006); Leopold, 'Land Ethic' (n 77)..
[120] Aldo Leopold*, For the Health of the Land: Previously Unpublished Essays and Other Writings* (J Baird Callicot and Eric T Freyfogle eds, Island Press 1999).

> commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.[121]

Hence to Leopold at least, environmental understandings of (real) property are explained in terms of community and connection.

Two centuries earlier, Jean-Jacques Rousseau captured other but related ideas about the earth and communal property when he wrote:

> The first person who, having fenced off a plot of ground, took it into his head to say *this is mine* and found people simple enough to believe him, was the true founder of civil society. What crimes, wars, murders, what miseries and horrors would the human race have been spared by someone who, uprooting the stakes or filling in the ditch, had shouted to his fellow-men: Beware of listening to this imposter; you are lost if you forget that the fruits belong to all and the earth to no one![122]

Rousseau's approach is echoed to some extent in the Scottish case of *Linlithgow Magistrates v Elphinstone,*[123] referred to in the English case of *Embrey v Owen*[124] and discussed in *Transforming Cultures* and *Watered Down*. *Linlithgow* illustrates the Court's distaste for the idea of private ownership of a river, with Lord Kames observing the 'darkness' created by the idea that 'a river could be appropriated like a field or horse'. The judge continued, 'a river is in perpetual motion, is not naturally susceptible of appropriation; and were it susceptible, it would be greatly against the public interest that it should be suffered to be brought under private property'.[125]

Watered Down pursues this idea further and concludes that a system of co-regulation has emerged in Australia whereby the control, use and flow of water vests in the State pursuant to statute, meaning that the State has 'the over-

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[121] Aldo Leopold, A *Sand County Almanac* (OUP 1949) viii. Whether 'Abrahamic concept' is strictly correct is contestable. Biblical references suggest land should be rested every seven years, see Exodus 23:10, 11.
[122] Jean-Jacques Rousseau, *The Origins of Inequality* [*Discours sur l'origine et les fondemens de l'inégalité parmi les hommes*, first published 1754], quoted in CB Macpherson (ed), *Property: Mainstream and Critical Positions* (University of Toronto Press 1978) 31.
[123] *Linlithgow Magistrates v Elphinstone* 3 Kames 331.
[124] *Embrey v Owen* (1851) 6 Exch 353.
[125] ibid 353 (Baron Parke) quoting Lord Parke in *Linlithgow Magistrates v Elphinstone* 3 Kames 331.

arching duty to guard, steward and protect the water in its care, on behalf of the State's people. Meanwhile the trading provisions allow the market, at least in part, to micro-manage water'.[126] Where that micro-management (arguably based on tradeable private property access rights) fails,

> it may be that the case that the role of private property rights … will need to be tempered by the intervention of the State, acting benevolently to protect the public property it holds on behalf of its citizens. Co-governance will, therefore, need to involve a genuine respect for the State's role as steward of the commons.[127]

Environmental understandings of property are often grounded in these ideas about stewardship and responsibility. Such understandings may be said to emphasise the joint, communal and shared nature of the environment and its riches (*Transforming Cultures*). Environmental understandings may also be said to embrace elements of reciprocity. While land and water may be used, they also need to be protected and nurtured (*Frack Off* and *Overwhelming Success*). However, environmental understandings based on these ideas have increasingly had to engage with the economic meanings of property which have been re-invigorated in the neo-liberal era of the late twentieth and early twenty-first century (see *Objects and Rationale* and *Contemporary Transferability*). So although environmental meanings of property have perhaps been traditionally more inclined to emphasise *res communes* and *res nullius*, they have also been shaped by private property. Hence environmental 'things' (such as tank water or a plot of land) when brought under one's control, become susceptible to a private property characterisation (see *Transforming Cultures* and *Watered Down)*.

Sceptical of the expanding, modern emphasis on private property in the environmental arena, Freyfogle has, in relation to land, rather than water, observed:

> Few ideas have bred more mischief in recent times, for the beauty and health of landscapes and communities, than the belief that privately owned

[126] *Watered Down* 160.
[127] ibid.

> land is first and foremost a market commodity that its owner can use in whatever way earns the most money.[128]

Freyfogle's conclusion raises two key questions:

(1) Is the very concept of private property appropriate for environmental management?; and

(2) if, so should private property rights be attenuated in some ways so as to harmonise better with environmental understandings of property.

On the issue of whether *private* property is an appropriate tool to manage aspects of the environment, such as water,[129] scholars such as Berry, Leopold and Sax have argued that the most apposite types of rights for the environment are: (a) *res communes* and (b) *res nullius* (where the 'thing' belongs to no-one).[130] Sometimes *res publicae* are also relevant (as in the case of national or state parks). Additionally Sax has pointed to the inappropriateness of private property for water use rights. He stated:

> The roots of private property have never been deep enough to invest in water users a compensable right to diminish lakes and rivers or to destroy the marine life within them. Water is not like a pocket watch or a piece of furniture, which an owner may destroy with impunity. The rights of use in water, however long standing, should never be confused with personal, more fully owned property.[131]

If use rights were to be kept outside the private property paradigm, they may need to be framed as permissions, that is, as licences — non-proprietary rights, but as *Historic Non-Transferability* demonstrates (in relation to access rights) that approach proved fraught if the ability to create additional permissions is not

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[128] Freyfogle (n 101) 1.
[129] Joseph L Sax, 'The Limits of Private Rights in Public Waters' (1989) 19 Envtl L 473.
[130] Jonnette Watson Hamilton and Nigel Bankes, 'Different Views of the Cathedral: The Literature on Property Law' in Aileen McHarg, Barry Barton, Adrian Bradbrook and Lee Godden (eds), *Property and the Law in Energy and Natural Resources* (OUP 2010) 36. Note there are other types of commons and anti-commons. See Michael A Heller, 'The Tragedy of the Anticommons: Property in the Transition from Marx to Markets' (1988) 111 Harv L Rev 621; semi-commons, see Henry E Smith, 'Semicommon Property Rights and Scattering in the Open Fields' (2000) 29 J Legal Stud 131; and liberal commons, see Hanoch Dagan and Michael A Heller, 'The Liberal Commons' (2001) 110 Yale LJ 549.
[131] Sax, 'The Limits of Private Rights in Public Waters' (n 129) 482.

limited through regulation. (A Pandora's Box of access permissions does not serve sustainability well).

In Australia, in practice, there is presently little inclination to reject private property rights in the environmental sphere. In fact a strong push for private property rights in water access (as opposed to water use) lay behind the introduction of extensive water reform in the late 1990s and early 2000s (see *Contemporary Transferability Chapter* and *Dollars and Dreams*). Reforms which saw water management regimes premised (at least in theory) on private property were implemented across all jurisdictions.[132] (Whether they have actually been established is another issue — see *Overwhelming Success*.)

Returning to the second question about limitations on private property rights, Freyfogle, if asked, might consider that an environmental understanding of property should involve an attenuated form of property which emphasises limitations on use so as to help ensure the health and beauty of landscapes. Additionally, he would also presumably claim that with property rights come responsibilities to promote the public interest and ensure the land health mentioned above.[133]

Specifically fashioned statutory property rights and common law property rights conditioned by statutory and other obligations are explored in the publications and demonstrate how this might be achieved.[134] They explore elements of environmental understandings of property when they analyse how the wide purview of property rights may be cut back and re-fashioned with a more limited ambit in an attempt to provide better environmental protections.

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[132] See Janice Gray and Louise Lee, 'National Water Initiative Styled Water Entitlements as Property: Legal and Practical Perspectives' (2016) EPLJ (forthcoming). Note it is arguable that water property rights have in fact not been introduced in some jurisdictions although access to water is being treated as though it constitutes a property right.
[133] Freyfogle (n 101).
[134] See *Historic Non-Transferability*; *Contemporary Transferability*; *Water: Brazilian Chapter*; *Dollars and Dreams*; and *Overwhelming Success*; the publications on unconventional gas which discuss statutorily created petroleum titles and the importance of conditions (*Frack Off* and *Fracking Story*); and the sewage publications (*Sewage Re-invention, Unspeakable* and *Mine or Ours*) which discuss regulations limiting how sewage (which is potentially property) may be dealt with.

In the environmental sphere, the curtailment of property rights, by way of governance and regulation,[135] which mandates assessment, monitoring, and conditioning for example, seems to have encouraged a counter-movement in the form of the 'freedom to use' or 'wise use' lobby. It argues that private property rights' holders should be able to exercise their rights with as few constraints (referred to negatively as 'green-tape') as possible.[136] The clash between environmental understandings of property[137] which involve some form of attenuation and the view of property which favours more unfettered, individual private property rights has come to the fore in the unconventional gas context (see *Frack Off* and *Fracking Story* and discussion in Theme 2).

Fracking Story, in particular, and as noted above, demonstrates how international trade agreements, such as the TPP, have the potential to limit government's ability to develop and implement laws designed to protect the environment.[138] The TPP, therefore, arguably provides a context in which economic understandings of property are likely to prevail over environmental (and legal and social) ones.

Environmental understandings of property also tend to emphasise the importance of seeing the earth community holistically rather than as a collection of segregated, individual and independent rights (see the discussion of Earth Jurisprudence in *Overwhelming Success* and of the Earth Charter in *Frack Off*). Environmental understandings do not, therefore, sit comfortably with understandings that permit land to be seen as unconnected to minerals, water, trees or fauna, for example. Neither do they fit comfortably with dephysicalised notions of property, which the bundle of sticks approach arguably promotes (see Part 2).[139]

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[135] Including statute.
[136] See S Waddell, A Cornwall and J Gray [on behalf of National Environmental Law Association], Submission No 32 to the House of Representatives Standing Committee on Environment, *Inquiry into Streamlining Environmental Regulation, 'Green Tape', and One Stop Shops*, April 2014.
[137] Environmental definitions are likely to permit or encourage the development of statutory limitations aimed at protecting the environment and supporting sustainable outcomes. They often emphasise the role of common property.
[138] See also Janice Gray, 'Trans-jurisdictional Water Governance in the Unconventional Gas Context' in Janice Gray, Cameron Holley and Rosemary Rayfuse (eds), *Trans-jurisdictional Water Law and Governance* (Routledge Earthscan 2016).
[139] *Dollars and Dreams* 164.

In conclusion, although there are different environmental understandings of property, many are likely to call on the characteristics, qualities or views discussed above, such as a dependence on common property and/or 'non-property', a distaste for, at least some aspects of private property, a commitment to environmental health and a willingness to embrace forms of property attenuated by restrictions and conditions. Environmental understandings may also hark back to the words of Aldo Leopold when he stated:

> I have read many definitions of what is a "conservationist" and written not a few myself, but I suspect that the best one is "written" not with a pen, but with an axe. It is a matter of what a man thinks about while chopping, or while deciding what to chop. A "conservationist" is one who is humbly aware that with each stroke he is writing his signature on the face of his land.[140]

Bearing these words in mind, perhaps the most apt environmental way of seeing of property in natural resources is that it is the place where people leave their mark — where history is writ. Property is the physical record of human behaviour. It is nature's book of conduct past and the narrative of the ways lives have been lived. Publications such *Frack Off,* which references the environmental harm potentially caused by fracking,[141] and *Objects and Rationale*,[142] which references the environmental harm caused by the over-allocation of water resources, may be said to engage with such a way of envisioning property. They see property as a kind of environmental genealogy.[143]

Cultural understandings of property[144]

The very concept of property as the common law understands it is anathema to traditional Indigenous understandings of land use, management and allocation

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[140] Aldo Leopold, *A Sand County Almanac* (OUP1949) 68.
[141] Such as increased seismic activity and fugitive gas emissions.
[142] *Objects and Rationale* 514.
[143] Note in Indigenous cultures middens act to provide an anthropological history. They tell us about land use, fauna and marine life.
[144] Australian Indigenous culture is the subject of the following discussion.

of land and water.[145] Indigenous cultural understandings involve land stewardship (typically by a community as opposed to individuals) rather than propertization.

> Land plays a key role in social organisation as well as economic and cultural life. It is not only the source of food and shelter, but holds great spiritual significance. Hence, it is central to Indigenous being and consequently the land imposes weighty responsibilities[146] [on those who steward it.]

'Protecting or caring for the land, or "growing up the land" as it is sometimes called, involves making sure the land is passed on to the next generation in a state fit for physical and spiritual use.'[147]

Connections to land and water are part of a broader set of connections, including to the Dreaming, song, food, ancestor spirits, fire and animals, for example (see *Native Title Chapter*). Hence the term 'property' is, therefore, not traditionally part of the Indigenous lexicon and simply seeing native title as another type of property may diminish the rich cultural understandings that underpin it, that are its life blood.[148] Further, non-Indigenous law itself does not see Indigenous connections to land and water as *directly* giving rise to property either.[149] Those connections are mediated through native title.

One of the key problems culturally in dealing with different understandings of land and water relationships is that the dominant power's understanding usually becomes the hegemonic one[150] and non-hegemonic conduct and relationships tend to be marginalised, ignored or discounted and property is what the dominant culture says it is. The result is an invisibilisation of the 'other'.

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[145] The focus on cultural understandings in this is Australian Indigenous culture.
[146] *Native Title Chapter* 115. All who steward the land including native title holders must protect it.
[147] ibid 116.
[148] For judicial discussion of this point see *Mabo* (n 85) 1, 89 (Deane and Gaudron JJ), 187 (Toohey J).
[149] Connections to land may indirectly give rise to property rights by way of native title.
[150] For a related discussion of hydro-hegemony, see Mark Zeitoun and Jeroen Woerner, 'Hydro-hegemony: A Framework for Analysis of Trans-boundary Water Conflicts' 2006(8) Water Policy 435; Mark Zeitoun and JA Allan, 'Applying Hegemony and Power Theory to Transboundary Water Analysis' (2008) 10 (supp 2) Water Policy 3, 7 referencing Antonio Gramsci on the concept of hegemony.

These difficulties raise the issue of the non-commensurability of concepts as between different cultures and the challenges (perhaps even impossibility) of translating traditional relationships with land and water into a form recognisable and understood by a modern and culturally different legal system (see *Native Title: A Proprietary Right?* and *Native Title Chapter* where the 'square pegs in round holes' analogy is employed).[151] Those publications note the allure of characterising native title as a property right but they also canvas how such a characterisation may foreclose more imaginative understandings of the concept, forcing what is largely spiritual into an established narrower common law paradigm.[152]

In order to unpack cultural understandings of property further, it is helpful to reflect on the plight of Indigenous Australians as explained in *Mabo* and explored in the publications.[153] The knowledge gained highlights *why* it was important for the dominant legal system to find a way of not just acknowledging but also legally recognising Indigenous cultural understandings of relationships with land and water. It helps elucidate property's purpose at this site.

In *Mabo,* Brennan CJ referred to case law as having demonstrated sustained and formalised efforts to deprive Indigenous Australians of their connections to land. He observed:

> [T]he common law itself took from indigenous inhabitants any right to occupy their traditional land, exposed them to deprivation of the religious, cultural and economic sustenance which the land provides, vested the land effectively in the control of the Imperial authorities without any right to compensation and made the indigenous inhabitants intruders in their own homes and mendicants for a place to live.[154]

[151] Stewart Motha, 'MABO: Encountering the Epistemic Limits of the Recognition of "Difference"' (1998) 7 Griffith L Rev 79 which explores whether non Indigenous judges can capture without doing violence to, the different ways Indigenous people relate to land and water.
[152] See *Native Title Chapter* quoting *Western Australia v Ward* [2002] HCA 28; (2002) 213 CLR 1; (2002) 191 ALR 1
[153] See *Native Title Chapter, Radical Decision,* and *O Canada*.
[154] *Mabo* (n 85)

He continued, '[Indigenous] dispossession underwrote the development of the nation'.[155]

That Brennan J spoke of 'dispossession' in *Mabo* presupposes the existence of earlier possession although, of course, the majority of the Court did not decide the case on the basis of possessory title (see *Native Title chapter* and *Radical Decision*). Nevertheless, prior possession or occupation is regarded by many[156] as fundamental to the finding in the case.[157] It indicated that factually and legally Australia was not *terra nullius*. The discussion of prior possession in the above publications may also be seen as highlighting, at least one of the purposes which the recognition of Indigenous 'property' (land connection) was meant to serve — that of redressing the sorry history of Indigenous dispossession.

It is also possible to see the common law's dispossessing conduct as arising out of, at least in part, a failure to appreciate and recognise some of the cultural and spiritual understandings of Indigenous connections to land. In other words the common law was able to ignore or marginalise Indigenous connections to land (which were largely spiritual and cultural) because those connections did not fit neatly within the common law proprietary mould. The common law was blind to a broader understanding of the 'propertiness' of these connections. On this analysis a failure to recognise non-legal understandings of land and water connections may have contributed to the existence of what the High Court in *Mabo* described as 'unjust law' when 'judged by any civilized standard'.[158]

Evidence of an historical failure to recognise different cultural understandings of 'property' is evident in *Milirrpum v Nabalco*[159] where Blackburn J accepted that the Yolgnu people had a 'recognizable system of law' but concluded that their law 'did not provide for any proprietary interest in the plaintiffs in any part of the

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[155] ibid [82].
[156] Colin Perrin and Bernhard Ripperger, 'In the Wake of Terra Nullius? (1998) 4(2) Law Text Culture 227.
[157] Richard H Bartlett, *The Mabo Decision* (Butterworths 1993) ix contests the importance of earlier possession and the need to overturn *terra nullius*.
[158] *Mabo* (n 85) [28].
[159] *Milirrpum* (n 82) 268–73. He recognised the spiritual connection to the land and regarded it as 'well proved' (270) and also observed that 'the clan belongs to the land rather than the land to the clan' (271) a reflection on the sense of the great obligation felt, but could not conclude that this and other evidence presented amounted to according the clans a 'proprietary interest'.

subject land'.[160] He observed that 'property in its many forms, generally implies the right to use and enjoy, the right to exclude others and the right to alienate' although all rights need not co-exist.[161] In other words he relied on the bundle of sticks conception of property. He then found that these specified characteristics were not evident in the Yolgnu's relationship with land and that there was 'so little resemblance between property, as our law or that I know of any other law, understands that term, and the claims of the plaintiffs for their clans, that I must hold that these claims are not in the nature of proprietary interests'.[162]

Put another way, Justice Blackburn's words in *Milirrpum* seemed to suggest that law had a monopoly on the term 'property'. His judgement, the context in which it emerged, and his conclusions about property, which are discussed in *Native Title Chapter, Lost Promise, Native Title: A Proprietary Right?* and *Radical Decision*, reveal the difficulties of aligning cultural and spiritual understandings of relationships with land with legal understandings of the term 'property'.[163]

Mabo sought to remedy injustice by importing notions of social justice and human rights law into land law and by recognising Indigenous cultural understandings of land connections.

As is evident in *Native Title Chapter* and *Radical Decision*, three elements, were legally crucial in creating a space where the Meriam people's culturally based understanding of connections to land and water could be recognised. They were: (1) absolute beneficial ownership was not a concomitant of sovereignty; (2) the Crown's radical title was burdened by pre-existing native title; and (3) there needed to be an ongoing connection to land and water based on customs and traditions and which dated back in an unbroken chain to the pre-contact era.

Ultimate acceptance by the body politic of *Mabo's* new approach to land law and its incorporation of cultural understandings (an approach initially regarded

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[160] ibid 273–74.
[161] ibid 272.
[162] ibid 273.Here referring to the *Rirratjingu* and *Gumatj*, major *Yolgnu* clans.
[163] In particular see *Native Title Chapter* 121–22. The sad irony in this case is that Blackburn J was fully aware of the limitations created by approaching the recognition of culturally and spiritually based property by reference to common law meanings and understandings.

as controversial and polarising)[164] was made possible by the existence of several legitimising conditions. They included: the unsettled state of the common law which left a clarification space; the relatively uncontentious facts of the case; the history of severe injustice pointing to a morally pre-ordained outcome; and the inactivity of the legislature in offering an acceptable alternative avenue for realising justice.[165] This context helped prevent the decision from ultimately being seen as judicial whimsy or politically driven.

Native title has come to provide a bridge between common law meanings of property on one hand, and culturally and spiritually based traditional understandings of land and water connections, on the other. It continues to act as a mirror, picking up and reflecting customs and traditions so that they can be noticed and recognised by the common law.

Whether the 'recognition space'[166] of native title itself constituted a form of property was an issue on which there was little judicial agreement in *Mabo*. The publications *Native Title Chapter* and *Native Title: A Proprietary Right?* explored that issue and concluded that while there remained judicial disagreement as to the nature of native title (was it usufructuary, personal property or a *sui generis* right, for example?), there continued to exist a broad space in which to mediate native title's content and classification in creative ways. However, as Wootten noted 20 years after the decision, native title has increasingly come to be aligned with non-Indigenous property under the bundle of rights conception (see Part 2).[167] This has arguably led to a 'demeaning' conceptualisation of native title.[168] Both *Native Title: A Proprietary Right?* and *Native Title Chapt*er presaged this unfortunate direction some 14 years earlier and counselled against foreclosing imaginative understandings of the concept.

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[164] See *Radical Decision* 39–41.
[165] As outlined by Brendan Edgeworth, 'The Mabo "Vibe" and Its Many Resonances in Australian Property Law' in Sean Brennan, Megan Davis, Brendan Edgeworth and Leon Terrill, *Native Title from Mabo to Akiba: A Vehicle for Change and Empowerment* (Federation 2015) 95.
[166] Noel Pearson, 'The Concept of Native Title at Common Law' in Galarrwuy Yunupingu (ed), *Our Land is Our Life: Land Rights — Past, Present and Future* (UQP 1997) 154.
[167] Hal Wootten '*Mabo* at Twenty: A Personal Retrospect' in Toni Bauman and Lydia Glick (eds), *The Limits of Legal Change: Mabo and Native Title 20 Years on* (AIATSIS 2012) 431, 431, 433.
[168] ibid.

Nevertheless the Australian property law narrative is a narrative which now reflects its hybridised roots in both English common law and in the cultural and spiritual understandings associated with native title and grounded in Indigenous customs and traditions. Since *Mabo,* the narrative has become more heavily imbued with a moral dimension. It has sought to reflect the truth of Indigenous existence and possession, the complexity of Indigenous relationships with land and water and the way in which native title connects with the common law. The inclusion of native title in the property narrative demonstrates property's capacity, constitution and the forces that shape it.

Arguably native title (and the cultural and spiritual understandings inherent in it) have played a significant socio-political and symbolic role. They help advance a more inclusive national identity,[169] addressing the 'dispossession' which Justice Brennan observed 'underwrote the development of the nation'.[170] They also demonstrate property's potential at the margins.

Although Pearson originally claimed of native title, '[t]he whitefellas get to keep everything they have accumulated; the blackfellas should now belatedly be entitled to whatever is left over',[171] today, 24 years after *Mabo,* a more positive, revisionist conceptualisation of native title has emerged in some of the literature. It suggests that 'outsiders — outcasts — were transformed [by *Mabo*] into meaningful legal actors'[172] who hold significant property rights.[173] If this re-imagining is true, it reflects the empowering nature of cultural understandings of

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[169] On issues of national identity, see the role of the Reconciliation movement and former Prime Minister Paul Keating's famous 'Redfern Speech' (Year for the World's Indigenous People), Redfern Park (Sydney) 10 December 1992 <https://antar.org.au/sites/default/files/paul_keating_speech_transcript.pdf> accessed 31 May 2016; former Prime Minister Rudd's 'Apology to Australia's Indigenous Peoples': Commonwealth, *Parliamentary* Debates, House of Representatives, 13 February 2008, 167 (Kevin Rudd); and the ongoing work of ANTAR in this regard.

[170] *Mabo* (n 85) [82].

[171] Noel Pearson, 'The High Court's Interpretation of Native Title' 7 (2003) Newc L Rev 1, 3.Pearson is an Indigenous lawyer, activist and leader.

[172] PG McHugh, *Aboriginal Title: The Modern Jurisprudence of Tribal Land Rights* (OUP 2011) 3.[173] Jon Altman and Francis Markham, 'Burgeoning Indigenous Land Ownership: Diverse Values and Strategic Potentialities' in Sean Brennan, Megan Davis, Brendan Edgeworth and Leon Terrill (eds) *Native Title from Mabo to Akiba: A Vehicle for Change and Empowerment* (Federation 2015) ch 9, esp Fig 9.1.

[173] Jon Altman and Francis Markham, 'Burgeoning Indigenous Land Ownership: Diverse Values and Strategic Potentialities' in Sean Brennan, Megan Davis, Brendan Edgeworth and Leon Terrill (eds) *Native Title from Mabo to Akiba: A Vehicle for Change and Empowerment* (Federation 2015) ch 9, esp Fig 9.1.

relationships to land (embraced by *Mabo*) and their ability to contribute to a changing Indigenous identity.[174]

However, the legacy of the non-compensability of pre-1975 native title extinguishment still militates against a truly inclusive national identity. If property's success is contingent on its purpose and its purpose is to redress the ill effects of dispossession, it has not yet fulfilled its mission.

Finally, a key feature of the cultural understandings associated with native title is the role they accord 'place'.[175] The relevant land and water connections which ground native title are situated somewhere. They promote the protection of place through elaborate systems of responsibility. Hence native title and the cultural understandings embodied in it are perhaps better at incorporating materiality and physicality than is the common law. If an emphasis on place is more likely to support better environmental outcomes as discussed above, then there would appear to be lessons to be learned from cultural understandings. Relationships between people may be important but 'grounding' those relationships in 'place' may help foster stewardship and reciprocity (growing up country) which, in turn, may better nurture the environment and protect it for future users.

It would be very difficult to capture the vast and complex range of Indigenous relationships and understandings relating to place and beyond, particularly those relationships embodied in the Dreaming. Accordingly, property is not likely to be a panacea. It is limited by its capacity to embrace understandings beyond legal ones (although as the recognition of native title demonstrates some Courts have sought to overcome these limitations). Its success is also

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[174] Clearly there is not simply one Indigenous identity as there is not one non Indigenous or one Australian identity. However, the term is shorthand for the way in which many Indigenous Australians have more confidently participated in civil society. Further, it is acknowledged that Indigenous identity changes were attributable to legal recognition as well, not purely social understandings.

[175] See *Native Title Chapter*; *Radical Decision* and *Lost Promise.* Note that Toohey J's judgement in *Mabo* (n 85) [188] has the strongest emphasis on a 'physical presence'. However a connection to place through custom and tradition may not necessarily involve physical presence on the land as other majority judgements demonstrated. In this regard see also Kirby J's judgement in *Commonwealth v Yarmirr* [2001] HCA 56 [304]; (2001) 208 CLR 1 where that judge found a connection to 'my country' or 'Mandilarri Ildugij country' as Mary Yarmirr expressed it, was sufficient.

limited by the purposes it is called upon to serve. Some may be beyond property's capacity.

Theme 2 – *Tensions exist between the different classifications/types of property interests and between the same types of property held by different parties*

The appended publications reveal tensions between real property, personal property, common property, native title, and 'non-property', for example (see *Radical Decision, Lost Promise, O Canada*, water book chapters, *Transforming Cultures, Watered Down, Frack Off, Fracking Story,* and *Cyberspace*). They also reveal tensions between different holders of the same type or classification of property. In both cases such tensions may entrench rather than resolve conflict.

Where there is a range of different types of property rights in tension or conflict with each other, such as the registered fee simple estate of a land-holder in conflict with a statutorily created petroleum exploration licence[176] held by a mining company there is likely to be a priority issue. Usually it would be resolved by the application of established priority rules in conjunction with the relevant statutes and regulation. However, in the unconventional gas space, the tension between those two kinds of property rights has raised a fundamental question: is one form of property right inherently more amenable to the realisation of positive environmental outcomes than another? Should the fee simple estate of a land-holder, for example, automatically be privileged over the petroleum title of a mining company in the pursuit of ecological sustainability? Groups such as the Lock the Gate Alliance and land-holder protesters themselves have argued that the privileging of land-holder rights will help prevent environmental harm in the unconventional space (see *Frack Off*). This view may have validity if it is thought that: (a) any mining at all is harmful and should, therefore, be prohibited and (b) land-holders will prevent gas mining.[177] However, it does not address the possibility that land-holders may simply wish

[176] Despite the nomenclature a petroleum exploration licence is personalty under Petroleum (Onshore) Act 1991 (NSW).
[177] Such a conclusion is reached if unconventional gas mining is judged against the tenets of the Earth Charter. See *Frack Off* (133–40).

to use the land in a different (but perhaps equally exploitative way) to petroleum title-holders. It may be that land-holders will, for example, over-pasture or over-graze thus contributing to further environmental degradation. Hence, whilst it may be convenient and perhaps practical, prudent and ultimately beneficial to privilege land-holders' real property rights over petroleum title holders' personal property rights in the interests of the environment, there is no legal justification for doing so on the basis that one type of right is intrinsically better at protecting the environment than the other. What is relevant is *how* proprietary rights are employed. Although to some extent that issue is related to the capacity of the particular right in question, it remains distinct from whether one type of property right itself is intrinsically better able to serve positive environmental or ecological outcomes.

Harmonisation of tensions between competing property rights is generally resolved by the methods mentioned above. Those methods seek to address issues of equity and justice and in some cases they overtly seek to balance social, economic and environmental objectives. but where those tools or methods have proved unsatisfactory and/or unpopular as in the unconventional gas context and in relation to sustainable diversion limits in the Murray Darling Basin, prioritisation of competing property rights has been mediated in the space of resistance and protest (see Theme 5). The above discussion, therefore, serves to demonstrate that the mere characterisation of a thing or relationship as property, will not necessarily resolve conflicts. Recourse to additional mechanisms, tools and methods beyond property itself may be needed to resolve property-based conflicts. Property alone is not necessarily a solution.

The tension between landholders' real property rights and petroleum title holders' personalty also exemplifies the first of Freyfogle's 'half-truths'.[178] He argues that many of the claims about property's benefits and capacity are based on assumptions dependent on 'half-truths' about property.[179] Accordingly, the very positive claims for property tend to gloss over many of the fundamental tensions which exist between different types of property rights. For example,

[178] Eric T Freyfogle, *On Private Property* (Beacon Press, 2007) ch 1.
[179] ibid.

one half-truth, to which Freyfogle refers, is the belief that the more we protect private property, the more we protect liberty.[180] This belief is flawed when applied to the unconventional gas example. Petroleum titles interfere with, rather than support, the liberty of land-holders' titles. A mining company's freedom to exercise its personalty (the petroleum title) is at the expense of the land-holder's liberty to exercise his/her real property rights. Real property rights are diminished and restricted by the very existence of petroleum titles.

Given that real property rights in Australia are not absolute rights, this conclusion is predictable and legally uncontentious, however, it seems to have come as a surprise to many land-holders (and protesters), who have assumed that real property rights are largely unfettered[181] and uphold vast liberties. Consequently, land-holders and groups opposed to unconventional gas have called for the assertion of land-holder rights which more strongly emphasise the right of exclusion and tend towards more absolutist understandings of property. These claims have not won favour with legislators probably for political reasons as much as legal reasons.[182]

A similar kind of correlative rights relationship to that discussed above is evident in the water sphere where the (purported) personal property rights[183] of individual water access entitlement holders simultaneously serve to reduce (a) common pool resource rights held by the wider community through the Crown and (b) the bulk entitlements held by corporate water utilities. In this case too, the assertion of property rights by one party causes a loss of liberty to another party whose property rights are diminished. Hence environmental water rights have been seen as cutting back the liberty of water access entitlement holders.

In response, water access entitlement holders have called for (a) a reduction in the number of 'offending' environmental water rights and (b) a reduction in the allocations of water to those rights. They anticipate that if, in turn, less water is

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[180] ibid 6.
[181] Michael Weir, 'Land Access Perspectives in Unconventional Gas: Where is the Balance?' (2012) 52 *APPEA Journal* 367; Laurence Boule, Tina Hunter, Michael Weir and Kate Curnow, 'Negotiating Conduct and Compensation Agreements for Coal Seam Gas Operations: Developing the Queensland Regulatory Framework' (2014) *17*(1) *AJNRLP* 43.
[182] The present New South Wales and Queensland governments are in favour of unconventional gas mining in those states.
[183] The legal status of water entitlements is not yet resolved in many Australian jurisdictions.

allocated to the environment more will be available to them at a cheaper price, making their enterprises (such as food production) more profitable. In other words they seek to reclaim some of the liberty lost in the exercise of competing environmental water rights, so demonstrating the *quid pro quo* involved in the assertion of competing property rights.

The sewage publications also demonstrate how different property holders may wish to employ property for contradictory purposes. Sydney Water, for example, sought to use property to keep competitors out, relying on the exclusion stick (see Part 2). Meanwhile Services Sydney sought to gain access to infrastructure (and presumably the sewage itself) relying on the access stick. Property, therefore, may be put to contradictory ends and mere propertization does not necessarily provide solutions. It may, in some cases, be the problem.

Further, the long history of litigation involving native title rights and common law or statutory property rights, particularly those held by mining companies and pastoralists also demonstrates a tension (see *Native Title Chapter*). That tension serves to demonstrate how the enhanced liberty of one property holder is accompanied by the decreased liberty of another. Whilst this conclusion may seem obvious it seems to have got lost in the plethora of calls to propertize an increasing range of objects and relationships. Hence it is worth reinforcing that the propertization of a 'thing' or relationship, does not necessarily serve the individual interests of all parties, nor automatically the interests of the wider community. The creation of private property may, for example, diminish the pool of common property, and such diminution may not necessarily be in the public interest despite being permissible.[184] Property (and particularly private property) has its limitations, although the present era of advanced capitalism does not tend to encourage focus on such weaknesses.[185]

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[184] For example, individuals such as those who held gleaning rights before the industrial revolution were disadvantaged by the loss of the commons. See Janice Gray, Brendan Edgeworth, Neil Foster and Shaunnagh Dorsett*, Property Law in New South Wales* (LexisNexis, 2012) 78.Note also that Plato argued in *Republic* that collective/common ownership was necessary to serve the common good by promoting the common interest: Plato, *Republic* (c 370 BC) (R Waterfield tr (Oxford University Press 1993). See Elinor Ostrom, 'Traditions and Trends in the Study of the Commons' 1 (2007) International Journal of the Commons 19; Carol Rose, 'Property Rights and Responsibilities' Marina Chertow and Daniel Esty (eds), *Thinking Ecologically* (Yale UP, 1997) 49.

[185] Whilst private property is important it also supports unsustainable consumption habits.

Theme 3 – *Property may be used to support markets and trading and markets and trading may help define property*

Markets and trading have emerged as key governance tools in the neo-liberal era. In the shift towards more pluralized forms of governance,[186] they (often in conjunction with corporations) have been responsible for many of the roles formerly undertaken by government (see *Water: Brazilian Chapter*). Traditionally their defining features have included privatisation and propertization. Markets and trade are, therefore, often closely tied to economic understandings of property and an economic approach to law (see Theme 1). In this context the objective of property is to facilitate economic growth efficiently.[187] Further, new regulatory regimes which embrace competition, trade and markets have created fresh opportunities for engagement with property. The institutional and organisational structures supporting those regimes may rely on property.

The land, water, unconventional gas and cyberspace publications in this thesis all demonstrate connections between trade, markets and property. For example, *Torrens Chapter* discusses and analyses some of the key procedures and mechanisms which create and secure conditions conducive to the transfers which underpin the economic exchange of interests in land. Accordingly, the chapter is concerned with the legal conditions that support trade. It highlights how mere trade will not transfer title in real property. Registration is required. Once an interest in property is registered, it attracts the benefits of indefeasibility and is state-guaranteed.[188] The kind of security which indefeasibility and registration provides has become fundamental to the effective operation of a system of real property trading and markets.

The trade and markets theme is also evident in *Cyberspace*. It discusses how the trade of virtual goods, either within the virtual world or outside it on the Linden dollar exchange, may leave the vendor open to capital gains tax liability

[186] Cameron Holley, 'Linking Law and New Governance: Examining Gaps, Hybrids and Integration in New Water Policy' (2016) 38(1) Law and Policy 24.
[187] See Benjamin M Friedman, *The Moral Consequences of Economic Growth* (Random House 2005).
[188] 'Indefeasibility' is not defined in *the Real Property Act 1919* (NSW). It means that, *prima facie* a registered title holder is immune from attack by third parties. Having said this, the Torrens system does recognise the existence of unregistered interests through its caveat provisions.

if the subject of the sale (generating profit/gain) is construed as property. Hence the way in which property is defined will be crucial. If property is simply created as an outcome of trade and the law is prepared to uphold that definition, then there is little room for debate. However, rarely are things so simple. A range of different legal understandings of property exist (see Part 2) and choices need to be made as to their applicability in different situations. In the context of trade and through its discussion of passing off and property in a persona, *Cyberspace* offers alternative ways to unpack the characterisation of virtual property.

In relation to water, the propertization of unbundled water access entitlements was seen as key to the water trading regimes introduced throughout Australia (see *Contemporary Transferability* and *Dollars and Dreams*). Trading and markets were introduced to promote efficiency and, so it was argued at least, environmental improvements.

Yet, whether the tradeable access entitlements which form the basis of Australian water trading regimes are, in fact, property remains in most Australian jurisdictions, perhaps somewhat surprisingly, unsettled, leaving open the possibility that they are not property.[189] This fact invites the question: 'Is a proprietary characterisation actually essential to the workability of regulated markets and trade?' If water access entitlements, in some jurisdictions at least, ultimately prove not to be property but are still tradeable, does this mean that property may be de-coupled from the environmental regulation which facilitates trade and does it mean perhaps somewhat ironically, that the law and economics approach to property (which sees propertization as a concomitant of trade) may become less relevant to the economic exchange which constitutes water trading?

Scott picks up on the idea of restricting property use in the environmental sphere, when he observes that 'governments' rules and "tenures" were and are

[189] Only two states' legislation specifically address the issue. See Natural Resource Management Act 2004 (SA), s 146(8) and Water Management Act 1999 (Tas) s 60, where water licences are expressly stated to be the "personal property" of their holders. Note ICM Agriculture Pty Ltd v Commonwealth [2009] HCA 51 did not resolve this issue categorically. Although Hayne, Keifel and Bell JJ concluded that because old style bore licences could be *traded* or used as security, they were a 'species of property' their words were *obiter dicta* and did not refer to newly styled entitlements anyhow. Nevertheless, their approach equated tradeability with property.

lasting substitutes for rights emerging on private property, not always with the same attributes'.[190] If water access entitlements are not property, the question of whether they should be arises. Is it desirable to propertize them? While the benefits of propertization have been well-rehearsed, there are also strong policy reasons against propertization. One such reason is that the creation of private property rights may inhibit the re-invigoration of the State's role in governance should policy proclivities alter. It would, for example, be difficult to nationalise access entitlements and re-distribute them under licence if they were already privately owned.[191] Compensation may prove prohibitive and international trade agreements linked to propertized entitlements (see *Fracking Story*) may limit government's capacity to claw-back greater control. This theme of markets and trading, therefore, particularly highlights the tension between whether private ownership or State ownership best stewards nature.

The question of whether it is possible to regulate by way of markets without depending on property is an issue that also indirectly arises in the sewage context. The sewage publications invite us to consider more closely how property interacts with regulatory regimes.

The Sydney Water regulatory regime is, for example, concerned with the disposal of sewage and was initially introduced primarily for health reasons but later was expected to manage the issue of how (black) water might be made available for recycling and environmental purposes. Sydney Water, the incumbent sewerage service provider, proceeded on the basis that the sewage it removed from its clients belonged to it, purportedly by way of quasi-contract. The paradigm for understanding the relationship between Sydney Water and the sewage in question was, therefore, a proprietary one.

Meanwhile an avowed objective of the Sydney Water regulatory regime was and still is, monetisation. Corporate profit is dependent on income from water and wastewater contracts with clients. Profligate water use and the creation of

[190] Anthony Scott, *The Evolution of Resource Property Rights* (OUP 2008) viii.
[191] Note that in the United Kingdom Labour Party leaders have enunciated policy which advocates a re-nationalisation of some sectors (for example, railways) indicating that a commitment to trade and markets as a governance tool is not unquestioned. Nicholas Watt, 'Labour Promises to Re-nationalise English Railways' *The Guardian,* 29 September 2015 <www.theguardian.com/uk-news/2015/sep/29/labour-promises-to-renationalise-english-railways> accessed 3 June 2016.

high volumes of sewage requiring removal (and potentially available as a resource to be re-cycled) both increase that profit. Yet Sydney Water is simultaneously bound to encourage abstemious water use to assist the achievement of environmental objectives. Hence regulation is being asked to deliver favourable health outcomes, positive environmental outcomes as well as financial profit.

How is such a regulatory regime to be achieved and what might it look like? If we address these questions (a) on the basis that competition is to be encouraged and (b) via a proprietary paradigm, it would seem necessary to diminish the proprietary rights of the incumbent (Sydney Water) in relation to the sewerage infrastructure, in order to provide better access to the competitor (Services Sydney). This conclusion raises the question: 'At what point does the regulatory purpose eat away at the incumbent's exclusivity to such an extent that it undermines the incumbent's property?' The answer to that question in part depends on the concept of property relied upon (see Part 2). If a Merrill approach is taken, whereby exclusivity is the *sine qua non* of property,[192] then the regulatory regime has the effect of seriously diminishing and perhaps destroying the incumbent's property rights. However, if a broader bundle of sticks approach to property is taken, it is possible that property (albeit in an attenuated form) may still exist in the incumbent even where exclusivity is reduced because other sticks in the bundle 'may pick up the slack'. Under the bundle of sticks approach exclusivity is not necessary to establish property.

Another related issue is whether classifying something as property helps or hinders the regulatory goal? In the sewage sector, opening up access to infrastructure was aimed at increasing competition so as to provide more efficient sewerage services but insufficient attention appears to have been given to the additional regulatory goal of improved environmental outcomes by way of sewage recycling opportunities. Hence the regulatory regime,[193] while focussing on infrastructure, did not address the question of rights in relation to sewage itself. This left open a space for a proprietary analysis of sewage; however, the proprietary paradigm may be at odds with the environmental goals of the

[192] Merrill, 'Property and the Right to Exclude' (n 10) 730.
[193] See Trade Practices Act 1974 (Cth); Water Industry Competition Act 2006 (NSW).

regulatory regime. If, for example, black water is propertized, it may be removed from the larger water cycle and not find its way back into streams and rivers, so denying use of it to the broader community. Black water may, for example, be retained by those who 'own' it and be unavailable (after treatment) for distribution under water service supply contracts by approved suppliers such as local governments and Sydney Water.[194]

The trade and markets theme also raises the practical issue of pricing and property. Whilst there may be concern about the diminution of the incumbent's property rights caused by having to provide access to a competitor, the practical implications of being left with a degraded form of property may perhaps be fewer than anticipated. If the incumbent remains in business after access has been granted (presumably still making a profit), perhaps the importance of holding extensive property rights has been over-blown. Property may be about concentrations of power but money is also about concentrations of power. Access costs money (as Services Sydney found) and where the price of access is set so as to allow the incumbent to stay in business and continue making a profit, then perhaps the effect of whittling away and re-fashioning its property rights becomes less important.

However, such a conclusion may under-estimate the significance of property (and the sticks comprising it) in areas beyond business efficacy. Property may be important for purposes such as compulsory acquisition, taxation, succession, dissolution of marriage, as the subject of a trust or caveat, property-based torts and restitutionary claims.[195] Downplaying property's importance may also mean that insufficient attention is devoted to, at least the possibility of, new forms of

[194] Recycled water from sewage is often 'contained' within discrete communities such as eco-communities and retirement villages. The recycled water does not re-join the wider water cycle. It is simply re-used by the select group of users who have access to it. However, it may be more equitable or more environmentally friendly to share it amongst a wider community. An entire housing development (such as Mawson Lakes, SA, population >11,000) can utilise recycled water from a sewage plant that serves a wider community. Salisbury Council, 'Mawson Lakes Recycled Water Scheme' (undated). The stormwater and sewage is treated and used for gardens and plumbed into toilets <www.salisbury.sa.gov.au/files/assets/public/general_documents/live/salisbury_water/water/mawsonfactsheet.pdf> accessed 14 June 2016.

[195] *Armstrong v Winnington Networks Ltd* [2013] ch 156 which involves the propertization of carbon credits (effectively credits to pollute air.)

property arising in contexts such as sewerage infrastructure (and telecommunications).[196]

Finally, this theme perhaps more sharply than the other four causes us to focus on a tension between political and moral commitments identified by Singer. He observed that a commitment to 'the protection of private property, and the end of "welfare as we know it"' was in tension with a moral commitment 'to the notions of human dignity, compassion and responsibility'.[197] We are, therefore, in the context of trade and markets, confronted with question of whether private property can preserve and protect the shared heritage of humankind such as natural resources, land and water. With a keen eye such a tension is identifiable in a range of the publications but especially in relation to *Overwhelming Success, Frack Off*, *Fracking Story* and *Water: Brazilian Chapter* which raise issues of human dignity, propertization and responsibility.

Theme 4 – *Tensions exist between notions of flexibility and fixity in the property space*[198]

Property law has a long, arcane, highly-historicised and technical genealogy. However, it has also revealed itself to be flexible and adaptable, exhibiting an extraordinary capacity to adjust to and accommodate new situations.

The selected publications include a plethora of examples demonstrating a tension between flexibility and fixity. *Torrens Chapter* offers one such example. It helps demonstrate property law's flexibility and capacity to introduce a boldly different titling and transfer system which initially complemented, and later largely although not entirely, replaced the pre-existing old system land titling system.

The Torrens system introduced a system of title *by* registration not a system *of* registration of title. It relies on a publicly accessible and transparent register, administered by a key bureaucrat (the Registrar). The system affords priority to

[196] Kevin Gray, 'Regulatory Property and the Jurisprudence of Quasi-Public Trust' (2010) 32 Syd L Rev 22 argues that in this context, 'regulatory property' is born.
[197] Joseph William Singer, *The Edges of the Field: Lessons on the Obligations of Ownership* (Beacon Press 2000) 10.
[198] Evident in *Unspeakable*; *Lost Promise*; *Native Title- Proprietary Right?*; *0 Canada!*; *Radical Decision?*; *Native Title Chapter*.

earlier registered estates and interests over later registered estates or interests. Registered interests also take priority over unregistered interests.

Today the widespread global uptake of the Torrens system may disguise the tensions between fixity and flexibility which were evident on and after its introduction. A vocal and powerful contingent of established property lawyers and landed interests strongly resisted the introduction of the Torrens system although it promoted a 'more defensible form of social life'.[199] In fact, in order to oversee the effective introduction of the Torrens system in South Australia and prevent it from being sabotaged, Robert Torrens resigned his position as a parliamentarian to take up the role of South Australian Registrar General. Such were his concerns about the profession's desire for fixity.

The Torrens system was eased into operation through co-existence with old system title, thus ensuring that property's capacity for flexibility did not challenge the notion of fixity too stridently. Ultimately, not only was the Torrens system of land titling accepted and adopted in a range of other national and international jurisdictions, demonstrating its portability, but aspects of it were adopted in areas beyond land, demonstrating property's extraordinary capacity to accommodate and adjust to new situations. For example, the Torrens register now forms the basis of water access entitlements' registration in most Australian jurisdictions, while traditional property tools such as security interests, originally designed for chattels (and later modified to apply to land), are now being applied to modern water rights (*Contemporary Transferability*).

The very recognition of native title by the common law also attests to property's flexibility. Property law has been able to accommodate its dual Indigenous and non-Indigenous legal heritage (see Theme 1) and has done so without undermining the necessary degree of fixity which helps give property its shape and form. How pre-contact customs and traditions may evolve before a continuing connection is lost, is a related question involving notions of flexibility and fixity (see *O Canada*). The question of evolving customs and traditions, is therefore, tied to property recognition issues.

[199] Singer, *Entitlement: The Paradoxes of Property* (n 5) 11 argues that our construction of property is dependent on 'choosing rules that respond to and promote more a more defensible form of social life'. See Douglas J Whalan, *The Torrens System in Australia* (Law Book Company 1982) ch 1.

Meanwhile in the access to infrastructure context, property's flexibility is presently being tested. Some scholars argue that although the sticks in the bundle of statutory property are being diminished by regulatory regimes which reduce the right of exclusion (through opening up access to competitors) property is not under siege.[200] In fact, they argue, there are positive outcomes for property because new forms of property, such as regulatory property (based on the expanded access rights of the competitor), are emerging. If this is the case, it would present a clear example of flexibility but perhaps property is not being created at all — perhaps access is simply being granted.

Cyberspace also raises property's capacity for flexibility (and consequently its threat to fixity) in its discussion of Fairfield's analysis of virtual property. *Cyberspace* argues that the traditional proprietary classifications do not fit well with the rights created in virtual games. It observes that Fairfield's classification of virtual world intangible rights (the computer code behind virtual worlds), as being akin to a chattel or land, is flawed. Instead that publication suggests that those rights exist 'in a limbo-type space, a shadowland, or a blurred zone at the edge of a chose in possession where the boundaries may not be so rigid and where cross fertilisation with the attributes normally associated with a chose in possession, are tolerated.'[201] That they might be housed in such an unusual space suggests property's capacity to accommodate and to exhibit versatility.

The challenge for property is getting the balance right between flexibility and fixity. If there is too much flexibility almost any relationship or thing may be propertized, which, given the special position property holds in the pantheon of legal rights, would be very problematic. Yet, if property is too rigid and fixed, it will be frozen in time and incapable of serving the needs of an ever-changing world. This conundrum points to the difficulties property faces in being presented as a panacea.

[200] Kevin Gray, (n 196) 221
[201] *Cyberspace* 50.

Theme 5 – *Property's significance may be mediated through context and resistance*

Issues of governance and regulation relating to property are often worked out in the socio-political context of resistance and conflict. Hence, in determining whether newly emerging claims, relationships and technologies (for example, water access entitlements and native title rights) are successful in their bid for proprietary status, it is relevant to appreciate that these bids are not only dependent on legal rationality and consistency of principle but also on political and social struggles, particularly around governance and regulation. Those struggles represent a field of politics and decision making in which other questions about property at the margins are worked out. Many of those other questions relate to the different economic, social, environmental and cultural understandings of property seen in Theme 1.

At other times the benefits of established property rights may be tested by the new contexts in which those rights operate, especially if new technologies are also involved (for example, hydraulic fracturing in the unconventional gas context). Unanticipated and/or undesirable outcomes may emerge, leading to resistance to both governance approaches and the technology itself. In this context there may be calls to re-fashion property rights, withdraw property rights altogether or replace one kind of property right with another. In this regard, it is worth noting property's inability to limit harm through the control of individual freedoms and the upholding of the common or collective good[202] is why environmental law was born.

I consider (below) property law's operation in the unconventional gas context, a context where resistance has been marked. I also briefly refer to property and resistance in the contexts of native title, water and Torrens title (land).

At the unconventional gas site, resistance has centred around property rights: (a) in the gas itself; (b) in the petroleum title or tenure which permits the holder to explore for petroleum; (c) in the sub-stratum of land in which petroleum is housed; and (d) in the surface stratum over which access is sought to carry out

[202] Or the related concept of the 'public interest'.

unconventional gas activities. Resistance at times conflates these different property rights.

Historically at common law land owners owned the land and petroleum (a hydrocarbon) in it under *the cujus est solum, ejus est usque ad coelum et ad inferos* principle.[203] Today in most cases statute vests property in petroleum in the Crown[204] and the title to explore or produce is the personal property of the petroleum title holder.[205] The petroleum title is carved out of the State's more extensive ownership rights. The substratum of land (where the petroleum is housed) is held by the surface owner subject to judicial and statutory modifications which cut back the common law position.[206] The right to exclude or prevent access to land is part of the landholder's rights unless otherwise determined by statute or the common law.

Up until the end of the 19th century the position was somewhat different. Individual landholders owned the minerals and petroleum beneath their land as part of the land title but a re-imagining of natural resources as beneficial to all society, not merely individuals, drove a legal re-classification of these resources moving them from private property and re-casting them as common property (held by the State). The way the State exercises its common property rights in unconventional gas (petroleum) today lies at the heart of much resistance (and protest).

The key groups involved in the unconventional gas debate in Australia are landholders, petroleum title holders, government, environmentalists, farmers and agriculturalists. Resistance to the status quo is led by landholders and environmentalists. They argue that landholders exercising their private landholder rights must become the new guardians of the common good and protectors of the environment. They challenge the State's ability to protect and conserve the environment through its common ownership and management of Australia's vast unconventional gas resources, suggesting that the hollowed-out

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[203] One owns from the heavens to the centre of the earth.
[204] See P(O)A 1991(NSW) s 6.
[205] See P(O) A 1991 (NSW) s 26.
[206] Minerals may be reserved to the Crown or vested in the State by statutory provisions. Individual land holdings are the subject of an initial Crown grant with almost all land later being converted to Torrens title by way of the various state-based Torrens Acts.

State[207] has left governance up to markets and trading and consequently the top priority is profit maximisation rather than stewardship of natural resources. Hence much of the resistance at the unconventional gas site is about a tension referred to in Theme 2; the tension between public or common property and private property. Resistance groups, such as the Lock the Gate Alliance and the Knitting Nanas, reject the State's ability to manage common property for the benefit of all citizens.[208] They support the recognition of less restricted private property rights for landholders, arguing that landholders will exercise those rights to deny petroleum title holders entry onto the relevant land the subject of a petroleum title.

However, it does not follow that protesters and the resistance movement support the exercise of *all* private property rights in the pursuit of environmental protection as opposition to the burgeoning number of (privately held) petroleum titles in NSW demonstrates (see *Frack Off*).[209] Support for private property rights is selective, as the discussion of royalties reveals.

Theoretically an exercise of petroleum titles (personalty) should generate royalties for the State and, in turn, that revenue would help fund government expenditure on projects and infrastructure designed to serve the whole community.[210] Hence whilst common property over the petroleum resource may be reduced by the creation of private property rights (in the form of petroleum titles), the cycle of mutuality and obligation is supposed to ensure that the whole community ultimately enjoys the benefits of propertization, through royalties. However, the very potential to generate income (through royalties) and by way of an exercise of personalty rights (petroleum titles) became a key concern of

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[207] Rod Rhodes, 'The Hollowing Out of the State: The Changing Nature of the Public Service in Britain' (1994) 65(2) Political Quarterly 138.

[208] The Lock the Gate Alliance <www.lockthegate.org.au/> accessed 8 May 2016; Knitting Nanas <www.knitting-nannas.com/> accessed 8 June 2016.

[209] James Robertson, 'NSW Government's Cancelling of Metgasco Licences was 'Legally Baseless' Court Hears *SMH*, (20 October 2014) <www.smh.com.au/nsw/nsw-governments-cancelling-of-metgasco-licence-was-legally-baseless-court-hears-20141020-118vnw.html> See *Metgasco Ltd v Minister for Resources and Energy* (2015) NSWSC 438, 84 on the cancellation of exploration licences and the way governments may be persuaded by public opinion in their decision-making. (hereafter *Metgasco*)

[210] Note early royalty 'holidays' for CSG licence holders resulted in a break in the cycle of mutuality and obligation because the private property rights of petroleum title holders did not enrich the public purse via royalties (for the whole community's benefit) as theoretically they were designed to do. See Gray, 'Trans-jurisdictional Water Law and Governance in the Unconventional Gas Context' (n 138).

protesters. Protesters argued (although using different language) that there was an incentive for the State to mistreat common property (petroleum) by fragmenting it excessively and creating vast numbers of privately held petroleum titles, in order to generate lots of revenue. The protest movement framed the issuance of petroleum titles over approximately 65% of NSW as a case of State-driven avarice at the expense of the protection of publicly or commonly owned property. Further, the real 'place-based' effect (see Part 2) of issuing petroleum titles is that actual land and actual water resources may be harmed in a real place. Mining infrastructure and activities will, for example, render some land sterile for use by its owner. Yet, the remedy for the loss of the right to use and enjoy is damages. It is not an injunction to prevent access or the upholding of an enforceable property right to exclude.

Massive protest and resistance at the unconventional gas site led to the NSW government's cancellation of one company's private petroleum titles.[211] Although the cancellation was ultimately overturned by the Court, with a requirement of compensation for wrongful extinguishment, the example serves to demonstrate the potential power of protest and resistance in helping re-shape property ownership.[212] It is possible to imagine other scenarios in the unconventional gas space with slightly different legislative requirements where Ministers under pressure could successfully move to expunge private property rights.

At least some of the resistance at this site is also related to the granting of petroleum titles without prior adequate community consultation; consultation being one of the pillars of new environmental governance. The question then arises: what obligations does the State have when privatising some of its common ownership? If it were to engage in greater community consultation (and if it took notice of the resistance and opposition expressed), it is likely that there would be fewer petroleum titles issued and more positive environmental outcomes would result. Where petroleum titles have been issued, persistent resistance on environmental grounds suggests that those titles are regarded as too invasive. They diminish the common ownership of petroleum, limit the use

[211] Metgasco's petroleum titles were cancelled.
[212] See *Metgasco* (n 209) 84 on the cancellation of exploration licences and the way governments may be persuaded by public opinion in their decision-making.

of surface land where petroleum is being exploited, and leave the environment degraded. At least some of the resistance at this site is, therefore, directed to the way petroleum titles fundamentally challenge the notion of fixity and push flexibility too far (see *Frack Off*). Even where property is supported by environmental law property is not proving to be the solution. It is difficult to find workable solutions in this area because the purposes that property is employed to serve are diverse and contradictory.

In the native title context property has also been mediated through resistance and protest (see *Radical Decision; O Canada; Lost Promise*). However, the High Court's skilful fashioning of the *Mabo* judgement did much to quell resistance by (a) ensuring that 'the skeleton of principle'[213] in the law was not fractured and (b) clearing a legitimate legal (rather than simply political) path towards the ultimate acceptance of native title. These issues are discussed in detail in Theme 1 so are not re-iterated here.

Meanwhile, a form of resistance related to water 'property' entitlements may be seen in relation to sustainable diversion limits (SDLs) in the Murray Darling Basin. SDLs set the maximum amount of water which may be taken for consumptive use after environmental water requirements have been met (*Overwhelming Success*). They are designed to ensure that the environment receives enough water to remain healthy and the effect of them is to limit the actual volume an individual private water entitlement holder is able to receive under licence. When the Guide to the Basin Plan announced the numeric value of SDLs (leading to a 22–29% reduction of allocable water availability), water entitlement holders (mainly farmers and agriculturalists) in the MDB reacted with fury. Some symbolically burnt copies of the Plan. Their concern ultimately was that SDLs were set at a level which would, in practical terms, diminish their water 'property' entitlements. They would be able to access less water because it would be allocated to the environment instead.

The argument against the SDLs was based on the purported constitutional invalidity of the Water Act 2007 (Cth) on which the Guide (and the SDLs) were

[213] *Mabo* (n 85) [29].

based.[214] That Act prioritised environmental concerns over economic and social ones but farmer and agriculturalist protest supported equal consideration of all three in determining the SDLs, which in turned helped shaped the volumetric extent of water 'property' entitlements. Ultimately, oppositional voices did not succeed in having SDLs or the basis on which they were formulated, changed and the constitutional challenges to the Act fell away. However, the size of the pool from which individual allocations are made in favour of the water 'property' entitlement holders was brought to the attention of the wider community by the actions of protesters and oppositional lobbies. Resistance and protest helped put water 'property' rights on the national agenda again, and opened up a more mature national debate about the prioritisation of environmental water rights (serving the public interest) over private water entitlements (serving individual interests).

These examples demonstrate the role resistance potentially plays in highlighting property concerns and bringing them to national attention, determining who is able to hold property rights and in shaping the extent of property rights held, for example. As resistance demonstrates, property is held by diverse groups with different agendas. Some of these agendas may be able to be addressed through propertization but not all. Other tools will need to be employed. Property cannot address the needs of all.

Conclusion

The thesis brings together a novel combination of four diverse sites (native title, water, unconventional gas, and cyberspace) in order to focus on property at the margins and to analyse how the concept of property and its application are often tested or taken to the limits in emerging areas. It considers property's constitution (particularly in regard but not limited to, native title and sewage) and it analyses the capacity or potential of property to assist governance, solve legal and social problems and instil order at all four sites. As law is a social institution with connections to the wider world, it also analyses how property shapes and is shaped by both legal and non-legal categories, disciplines, behaviours and understandings.

[214] It prioritised environmental concerns over economic and social ones.

This critical analysis component observes that property is a nuanced, multi-dimensional and sophisticated concept, not simply a blunt tool of management. Property is, however, also the subject of much scholarly disagreement and open to a range of justifications and conceptualisations,[215] including the popular bundle of sticks conceptualisation which is critiqued to demonstrate property's complexity and to counsel against its reification. The potential effects, on the environment, of property's de-physicalisation are also considered in that critique.

The analysis goes on to contend (and conclude) that although property can be located in a range of obscure sites — an indicator of its capacity — and despite the current enthusiasm for propertization (ranging from water access rights to aspects of virtual games and even sewage), propertization is not necessarily the solution. Propertization will not necessarily lead to positive or desired outcomes. Instead property's effectiveness is contingent on the purpose it is to serve.

In order to prove this proposition the thesis, both through the publications themselves and in the discussion of the five property-related themes emerging out of the publications, identifies a range of purposes. Those purposes are diverse and sometimes contradictory. They include to redress prior Indigenous dispossession, capture elements of the Dreaming, embrace the dual heritage of Australian property law, permit the collection of taxes, promote human and environmental health, move water resources from low value to high value use, support the exploitation of (non-renewable) energy sources, and promote a strong economy. Property may need to act in tandem with other legal and non-legal tools if it is to serve these purposes and help solve (often intractable) problems.

The four selected sites are important in revealing a number of under-examined issues, such as how a form of waste, sewage, may be re-imagined so as to be captured within the proprietary frame; the effects of proprietary characterisations on environmental sustainability; and the connections between real and virtual world property.

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[215] It also noted that a discussion of property's justifications and a more detailed discussion of the different conceptions of property were beyond the scope of this thesis.

The discussion in Theme 1 focuses on alternative non-legal understandings of property (or land and water relationships). It demonstrates how propertization cannot capture all the elements of the alternative (non-legal) understandings of property which exist. Hence the legal institution of property is automatically limited in its capacity to solve problems irrespective of any other shortcomings it may have. Propertization of a thing cannot address, encompass, incorporate and embrace all of the diverse economic, social, environmental, and cultural understandings of property. They will continue to exist outside the manner in which the law defines property, and they will find voice in locations beyond law.

The analysis in Theme 2 also reinforces the conclusion that propertization will not necessarily resolve problems by demonstrating that property rights are often in competition or conflict with each other. The liberty of one property holder is diminished by the exercise of the same or different property rights held by another. Obvious as it is, this potential outcome often gets lost in the call to propertize yet it demonstrates quite starkly some of the limitations of a property characterisation.

Meanwhile the material in Theme 3 examines connections between neo-liberalism's favoured tools of governance — markets and trading — and property. It considers the possibility of decoupling property from trade in the regulatory context, suggesting that if property proves unnecessary to economic exchange, property's importance will decline. It also discusses the effect of increasing competition by way of opening up monopoly-held infrastructure to competitors and raises two important questions: at what point are the property rights of the incumbent eaten away by the regulatory goal?; and how should a new resource such as sewage be characterised — as property or not? If property rights are diminished by way of increased access, it is possible that they will be employed less readily.

Discussion in Theme 4 addresses the tension between flexibility and fixity in the property space, observing that Australian property law has shown an extraordinary capacity to adjust and adapt without undermining the integrity of the institution.[216] This point is particularly obvious in relation to property's

[216] Property is both a concept and an institution. Some would argue it is also a remedy.

capacity to come to terms with its dual legal heritage in both the common law and native title. The tension between flexibility and fixity is also discussed in relation to the introduction of the Torrens system and property in the virtual game, Second Life. The analysis concludes that it is very important to maintain the right balance between flexibility and fixity so as to avoid social unrest and a loss of faith in the institution of property. Where that balance is not achieved, as in the unconventional gas space, protest and resistance are likely to follow.

Finally, the discussion in Theme 5 specifically analyses how property is mediated through resistance and conflict, and considers protest and resistance in the spaces of unconventional gas, water and Torrens title. It reveals the way in which protest has attempted to shape who is able to hold property rights and the limitations that should be placed on the exercise of those rights. Discussion of this theme again serves to highlight the diverse and contradictory purposes which property is employed to serve, providing further support to the general thesis that it may be difficult to find satisfactory solutions simply through a process of propertization.

More broadly, this thesis contributes to the field by: demonstrating how interactions with other non-legal understandings of property may be mediated; showing how contested claims may be managed; helping to frame further legal inquiry and analysis and; helping shape how other non-legal disciplines see and engage with property.

It is original in terms of the mix of sites on which it focuses. Such a compilation permits fresh observations to be made even when conventional questions are asked. It is also original in its identification and discussion of the five themes which emerge from the unique mix of publications. Further, the publications themselves are commonly some of the earliest in their fields, for example, the water law book chapters,[217] the publications on property and native title, sewage, favelas, Second Life, and unconventional gas as well as the water publications, *Transforming Cultures* and *Watered Down*. They test both old and new ideas in emerging fields and several of the publications have informed or

[217] The water book chapters are part of what is commonly regarded as the most comprehensive Australian water law book following the water reforms around the turn of last century. This book was an early publication in the field and responsible for guiding and/or informing much debate and discourse in the area.

prefigured the later publications of other authors in the field.[218] In terms of development, the publications demonstrate how (real) property law may be used as a portal for entry into other jural spaces. In the marginal spaces which it explores this thesis offers fresh insights about property's constitution and capacity and its relationships with other fields and disciplines.

[218] See for example, Godden n 130 and her use of *Historic Non-transferability* and *Contemporary Transferability*.

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