

CHAPTER 4. INTERNATIONAL PERSPECTIVES AND DOCTRINES

Since this overview is comprehensive, requiring an understanding of the world-view and the philosophical, religious, political, and economic contexts in which the Crown operated, this chapter looks at Western perspectives of the natural world. Environmental history often uses a methodology which incorporates the level of the mind as well as the levels of the 'land' itself and of human 'land'-use. It has been articulated by Donald Worster, a notable practitioner of environmental history in America.¹ Such an approach is consistent with the practice of environmental history as it has developed in New Zealand.²

In the seventeenth century there occurred a change in the way the West perceived the natural world.³ Prior to that time, the Western world-view was one of organicism in which the idea of a vital spirit or life-force animates, organises and links all living species. This idea can be traced from Judaic scriptures and from philosophers in ancient Greece, but in the early centuries of the Christian era, philosophers united Greek and Christian ideas. Plato's metaphysical concept of the material and spiritual worlds joined by the Demiurge's creative spirit, and Aristotle's idea of a hierarchical scale of nature were combined for Christianity into the Great Chain of Being. Plato's Demiurge was replaced by the Christian God as creator and life-giver. A spark of life-force, called Soul, was thought to permeate all parts of all living creatures causing each to grow and develop into its particular form attracted by the soul of its 'parent'. Human beings, having the soul of intellect or mind in addition to the sensory soul of animals and the growth soul of plants and 'lower' animals, saw themselves as part of a living, teleological, self-organising world connected by God's immanent spirit. Of course they used plants and animals for the necessities and pastimes of life and indeed sometimes despoiled their environments but nevertheless saw themselves as part of a continuum of life from Creator down.⁴

As the idea of organicism declined as a world-view, it was replaced by the metaphor of mechanism, in which the world was considered to have been activated by God the engineer and then to function as an automaton. While the absurdity of such a conception for animals was acknowledged⁵, the mechanistic metaphor was adopted because it suited

1, Donald Worster, 'Transformations of the Earth: Toward an Agroecological Perspective in History', *Journal of American History*, vol 76, 1989-1990, pp 1090-1091

2, For example either implicitly or explicitly, see M M Roche, 'The Origins and Evolution of Scenic Reserves', MA thesis, University of Canterbury, 1979; J O C Phillips, 'Paradise Lost...Again', *Waikato Environment*, vol 4, no 5, [1982], pp 16-22; L E Lochhead, 'Preserving the Brownies' Portion: a History of Voluntary Nature Conservation Organisations in New Zealand 1888-1935', PhD thesis, Lincoln University, 1994; Geoff Park, *Nga Uruora: The Groves of Life*, Wellington, Victoria University Press, 1995; Paul Star, 'From Acclimatisation to Preservation: Colonists and the Natural World in Southern New Zealand 1860-1894', PhD thesis, University of Otago, 1997; Robin Hodge, 'Nature's Trustee: Pèrrine Moncrieff and Nature Conservation in New Zealand 1920-1950', PhD thesis, Massey University, 1999. Intellectual ideas on the natural world are also discussed in P Hamer, 'Nature and Natives. Settler Attitudes to the Indigenous in New Zealand and Australia', MA thesis, University of Victoria, 1992.

changing economic, social, political, and technological circumstances so that all were wound together into a new paradigm.⁶

The mechanistic paradigm developed from three clusters of integrated ideas. The first was that ‘true’ or ‘real’ knowledge could be measured mathematically and therefore was rational, objective, materialist, universally ascertainable, mechanically caused, and predictable from predetermined laws. Thus only primary qualities like shape, size, motion or quantity were considered. Qualities like colour, touch or taste, whose description was dependent on the observer, were subjective and secondary and therefore not ‘real’.

The second cluster was the extension of measurability to living things and the separation of humans from other life forms. The French philosopher, René Descartes, conceptualised living things as automata, comprised of substances which could be reduced to measurable quantities in chemistry and physics. The idea of an indwelling, God-given life-force, vital spirit or soul in all living things was discarded. Living or dead, organisms were considered essentially the same material collections of chemicals differing only in their response to outside stimuli. Humanity was distinguished from other ‘living’ automata, in Cartesian dualistic philosophy, by mind or soul which existed independently from the material and reducible body.

The third cluster in the mechanistic paradigm was Francis Bacon’s promotion of a scientific method. This was based on observation and experiment from which general laws could be established, to investigate the natural world. Bacon believed this method could lead to the collection of a progressive body of natural and physical laws. The combining of these three clusters of ideas in what became known as classical science, especially through the mechanics of Isaac Newton, imposed on western society the mechanistic, materialist paradigm. It was the world-view under which the Crown operated in the nineteenth and twentieth centuries and remains the dominant paradigm today, despite a small but growing minority of people who accept an organic world-view. Under the Western world-view, the knowledge systems devised by indigenous races of the ‘new world’ were discounted.

With humankind’s increasing knowledge of the world, people came to see their position *vis-à-vis* both God and nature as changed. Under the organic world-view, derived from Biblical precepts, human beings were given dominion over all creatures but were also exhorted to care for them.

3. This paradigmatic change has been well explored by overseas historians including Donald Worster, *Nature's Economy: A History of Ecological Ideas*, New York, Cambridge University Press, 1977; Carolyn Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution*, New York, Harper & Row, 1980; David Pepper, *The Roots of Modern Environmentalism*, London, Groom Helm, 1984; David Pepper, *Modern Environmentalism: An Introduction*, London, Routledge, 1996

4. Derek Wall, *Green History: a Reader in Environmental Literature, Philosophy and Politics*, London, Routledge, 1994, chapter 2

5. Keith Thomas, *Man and the Natural World: Changing Attitudes in England 1500-1800*, London, Allen Lane, 1983

6. The idea of a paradigmatic shift has been explored by Thomas S Kuhn, *The Structure of Scientific Revolutions*, Chicago, Chicago University Press, 1970, 2nd ed

As humans gained knowledge of seemingly unchangeable laws, the former came to dominate and people saw themselves as God's deputies on earth with a duty to improve the material lot of humankind by investigation and subduing nature's inefficiencies.

The seventeenth century, when these ideas were actively promoted, was a time of immense upheaval in Europe. As feudalism collapsed, capitalism emerged and the composition of classes changed. The rise of classical science, accompanied by technological change, became allied to the rising middle class of merchants, bankers, traders and explorers.⁷ But while the middle classes desired those new social orders, they also required people to be ordered, disciplined, and controlled. Human beings were to emulate the discipline and order of the physical world, whose laws were gradually being revealed. Uncontrolled and wild behaviour was to be conquered, whether in human beings or in the natural world. As humankind, through reason, learned more and more of the underlying laws of the physical and natural worlds, not only would their material lot be improved but also their social and moral condition. Thus the Enlightenment era posited an ideology of discipline, order, land improvement and, through them, progress and civilisation. The exploration of the world was to help in the discovery and formulation of physical laws as new minerals, flora and fauna were gathered. These were to be classified in natural systems and used for the progress of Europeans and eventually for all peoples, considered uncivilised in lands of the new 'discoveries'. This ideology, with its combination of religious, social, political and economic precepts, was a powerful, motivating force for Western nations.

The hierarchical structuring found in Aristotle's Scale of Nature and in the Great Chain of Being was employed in the classification of 'new world' flora, fauna and peoples. Several naturalists of the seventeenth and eighteenth centuries devised systems that sought to reveal God's ordering of the natural world. These were to parallel discoveries of physical laws in the cosmos. The taxonomic method developed by Carl von Linné, known as the Linnean system, was eventually adopted by the western world to identify and classify 'new' plants and animals within a universal system so that their properties could be investigated for their potential use. Peoples, too, were assessed. As Charles Darwin wrote in the *Voyage of the Beagle*:

If the state in which the Fuegians live should be fixed at zero in the scale of government, I am afraid New Zealand would rank but a few

7, Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860*, Cambridge, Cambridge University Press, 1995, pp 53-55

degrees higher; while Tahiti, even when first discovered, would have occupied a respectable position....On the whole [the Australian Aborigines] appear to me to stand some few degrees higher in the scale of civilization than the Fuegians.⁸

The implication was that the British were at the top of the scale of civilisation while Maori, according to Darwin, were near the bottom and nearer to nature. But Darwin, as other Englishmen were later to do, believed that Maori were capable of moving up the scale with English examples to lead them. Of the missionary farm and its Maori workmen at Waimate, he observed, 'When I looked at this whole scene I thought it admirable....Nor was it the triumphant feeling at seeing what Englishmen could effect, but it was something of far more consequence; the object for which this labour had been bestowed – the moral effect on the aborigines of this fine country.'⁹ For, as L.E. Lochhead argues, the idea that humankind could advance from the state of savagery to ever higher levels of civilisation was a strand of the materialist-mechanist paradigm.¹⁰

The British justified land acquisition of 'new' territories by colonisers under the political theory of liberalism which held that the individual (and the individual nation) must improve both himself and his natural environment to the fullest extent. Indigenous races who were perceived not to have improved their environment by cultivation, and who lived peripatetically upon it, had no right to its continued ownership.¹¹ This theory was articulated by Emmerich de Vattel in his *Law of Nations*, translated into English in 1760. Vattel reasoned that cultivation of the earth causes it to produce an infinite increase which forms a resource and commerce that should accrue to the welfare of the state. 'Those [who do not cultivate the earth] usurp more extensive territories than they would have occasion for, were they to use honest labour, and have therefore no reason to complain if other nations more laborious and closely confined come to possess a part'. In fact, he considered that they deserved to be exterminated as wild beasts.¹²

Even in the 1930s, there are echoes of this attitude. G.V.Jacks and R.O.Whyte, of Britain's Imperial Bureau of Soil Science, in their influential book on soil erosion, differentiated an ecological adaptation by a 'civilized society' to achieve soil conservation and fertility, to the soil fertility achieved by nomadic 'primitive communities'. As 'unimportant

8, Charles Darwin, *Voyage of the Beagle*, Janet Browne and Michael Neve (eds), London, Penguin. Text first published 1839, pp 307, 321

9, Darwin, p 311

10, Lochhead, p 11 also Hamer, p 17

11, Bhikhu Parekh, 'Superior People', *Times Literary Supplement*, 25 February 1994, pp 11-13

12, Grove, quoting Emmerich de Vattel, *The Law of Nations...*, London, 1760, p286

servants of wild Nature', the latter practised shifting cultivation which Jacks and Whyte acknowledge maintained soil fertility indefinitely.¹³

Land, not in gardens, crops or pasture, was deemed 'waste', the term for public lands in a natural, uncultivated condition.¹⁴ Lord Normanby, Secretary of State for War and Colonies, instructed Captain Hobson to obtain 'the Cession to the Crown of such Waste Lands as may be progressively required for the occupation of Settlers resorting to New Zealand.'¹⁵ Tom Brooking points to a development of this idea in settler New Zealand that should be further researched, given that Vatel accepted, Brooking notes, that indigenous people should be allowed to occupy as much land as they needed for their support. Brooking's interpretation of Vatel appears to conflict with Richard Grove's comment on extermination, which was quoted previously. Brooking adds that common law decreed that native title could not be extinguished without the occupiers' consent. 'But the moralistic tone of the whole land debate in New Zealand enabled settlers to ignore such legal niceties'.¹⁶

Linking the ideas of human progress and perfectability and the scale of civilisation was the Darwinian explanation of competitive struggle. Competition led to the 'survival of the fittest' and, for the British, explained why some cultures were more 'successful' than others.¹⁷

But, even in Britain, the idea of constant advance through materialism and mechanisation as expressed through industrialisation and human control of nature was challenged from the late eighteenth century by adherents to the Romantic movement. Poets like William Wordsworth viewed mountainous areas, or even groves of wild flowers, as uncontrolled and wild and therefore uncontaminated manifestations of God the creator. While romanticism was a complex movement of social, political, spiritual, philosophical, and artistic attitudes, its application to the natural world involved the rejection of the lifelessness of the mechanistic paradigm and a reappraisal of humanity's relationship with wild nature. The latter was achieved partly through actual experience in mountaineering, walking, and exploration and partly through inspirational depiction of the wild in art, literature, and music. Both actuality and image sought to provoke an emotional response as opposed to the objective, disengaged tenet of the materialist-mechanist paradigm. Romantics believed that the spirit could be refreshed in wild 'free' nature and that the mechanist-materialist paradigm could be ultimately regressive for human beings, as they saw evidenced by industrial areas. In addition, ob-

13, G V Jacks and R O Whyte, *The Rape of the Earth: A World Survey of Soil Erosion*, London, Faber, 1939

14, Lochhead, Footnote 53, p 64

15, Normanby to Hobson, 14 August 1839, in W David McIntyre and W J Gardner (eds), *Speeches and Documents on New Zealand History*, Wellington, Oxford University Press, 1971, p 13

16, Tom Brooking, 'Use It or Lose It: Unravelling the Land Debate in Late Nineteenth-century New Zealand', *NZJH*, vol 30, no 2, pp 160-162

17, Lochhead, pp 26-30; Hamer, p

servers like George Perkins Marsh recognised that land could be despoiled and humans regress by their exploitation of land which would not necessarily self-heal.¹⁸ While Marsh believed that science would come to humanity's aid, others began to advocate wise-use conservation of natural resources and the permanent reservation of 'wilderness' areas.¹⁹

Many of these themes were suggested, as Lochhead points out²⁰, in the Inaugural Address given by New Zealand's Governor, Sir George Bowen, as the first President of the New Zealand Institute in 1868.²¹ Bowen spoke of an unbounded faith in material progress through science, the benefits of civilisation for Maori and coloniser, the greater glory of England and her Empire, and the prospect of a personal salvation in the next world.²² Study of this speech would be useful in further understanding contemporary attitudes.

4.1 Earlier British Colonial Environmental Experience

While Bowen's speech emphasises only the utilisation of nature, experience of resource exploitation in other colonies during the preceding two hundred years had shown the Crown that conservation of resources was a necessary concomitant to use. Indeed these officials, as Classics scholars, would have been aware of the link between deforestation and land degradation from study of ancient Greek texts.²³ Grove's research into early environmentalism in the West Indies, southern Africa, and southern India has identified a number of officials who, aware of environmental degradation caused by the development of plantation crops like sugar, implemented various conservation strategies. For example, on Barbados from the seventeenth century, introduced goats and cattle caused serious soil erosion while deforestation also led to landslides and soil infertility and was thought to induce climatic effects of reduced rainfall and more torrid temperatures. These concerns came to the Governor's attention and were considered important enough to pass on to London. But forest clearance was also considered beneficial, not only as 'land improvement', but also because tropical forests were thought to exude harmful vapours which caused fevers. Once it was cleared the sun would dry out the miasmas. Given these conflicting views on such a predominant feature as forest, and rampant capitalism, early environmental anxieties on Barbados were soon overwhelmed.²⁴

18, George Perkins Marsh, *Man and Nature or Physical Geography as Modified by Human Action*, David Lowenthal (ed), Cambridge Massachusetts, Belknap Harvard Press, 1965, orig pub 1864

19, Hamer, pp 41-42; Lochhead, Chap 2; Hodge, pp 23,54. The variety of human constructs of 'wilderness' over time has been explored by several historians including Roderick Nash, *Wilderness and the American Mind*, New Haven, Yale University Press, 1973 (rev ed)

20, Lochhead, pp 13-16. G F Bowen, 'Inaugural Address of Governor Sir George Ferguson Bowen, G.C.M.G. to The New Zealand Institute, as its First President, August 4, 1868', *TNZI*, vol 1, no 3-9, pp 7-8

21, The Institute and its associated local Philosophical Societies became the Royal Society of New Zealand in 1933.

22, Lochhead, pp 15-16

23, Grove cites Thucydides and Theophrastus; p 20. New Zealand conservationists in the 1920s and 1930s quoted Plato on the soil erosion consequences of deforestation; E V Sanderson, 'Back to the Rocks', *Birds*, vol 22, October 1930, pp 2-3

24, Grove, pp 63-67

However, a century after the Barbados experience, protective measures were begun on Montserrat and Tobago. An Ordinance was proclaimed on Montserrat to protect streamside forests while forest reserves were established on Tobago. An Ordinance of 1765, first issued in London the previous year, proposed to set aside 'a large part' of Tobago as forest reserve for timber, 'to preserve the seasons so essential to the fertility of the islands', and 'to prevent that drought which in these climates is the usual consequence of a total removal of the woods'. While hilly areas only were reserved, these forest reserves became permanent and were little altered by different English and French administrations in the next hundred years.²⁵

On St Vincent, a similar programme of forest reserves from 1764 was delayed for nearly 30 years by indigenous black Carib resistance to British sovereignty. Crown promises to the black Caribs prefigure the Treaty of Waitangi; native Caribbees were to remain undisturbed in the possession of their cottages and goods, they were assured of the enjoyment of their lands, and they would have full rights as British subjects. Nevertheless the black Caribs put up armed resistance to surveys and road building until they were forcibly removed to the nearby but less fertile island of Bequia in the 1790s.²⁶

In the matter of the Tobago forest reserves, another concept which occurred in New Zealand, is prefigured. The Tobago reserves were not classified as 'common land' by the Crown, with all the associations that forest had had traditionally with lawlessness. They were considered Crown Land. In England landowners were usually careful to distinguish areas of forest which were effectively appropriated and managed from those which were not.²⁷ New Zealand forest, which became reserved, was also deemed Crown land.

It has been argued that the Crown in New Zealand should have been aware of ecological damage caused by deforestation because of two hundred years' experience in tropical island colonies.²⁸ But it seems that local officials in these islands were much more aware of the need to ameliorate detrimental environmental effects than were officials in London who also saw differences between tropic and temperate climates. Attitudes to forest were not unanimous. Deforestation in North America was generally seen as a positive process until the publication of Marsh's book in 1864.²⁹ In Australia in 1803, only 15 years after European settlement, Governor King issued a proclamation recognising the role of trees in retaining river

25, Grove, pp 70, 271, 273, 283

26, Grove, pp 284-291

27, Grove, pp 284,280

28, Wendy Pond, *The Land with all Woods and Water*, 'Waitangi Tribunal Rangahaua Whanui Series (working paper: first release), June 1997, pp 35-39

29, Grove, p 199

banks and thus preventing erosion, silt buildup, and flooding.³⁰ But there was also the idea of abundance; that because the forest appeared inexhaustible, trees could be felled.³¹

Further research by environmental historians of early Crown documents could reveal Crown attitudes to New Zealand's environment which differs from continental America and Australia but also from tropical islands, since it is in the temperate zone. It is modified by its oceanic position, its continuing volcanic uplift, steep slopes, and new soils. Early settlers certainly became aware of and publicised the interconnectedness between deforestation, heavy rainfall, flooding, and soil erosion. Two, A.D. Dobson and W.T.L. Travers, are identified by M.M. Roche in his book *Land and Water*.³² Even though the Crown had had experience of environmental degradation for two hundred years before the Treaty of Waitangi, this was overwhelmingly in tropical areas which, perhaps in its opinion, were considered more fragile than temperate countries.

This section has examined the mechanist-materialist Western world-view with its accompanying attitudes to the idea of progress and the use of land. It has briefly described the alternative tenets of Romanticism, and notions of forest retention or reforestation particularly in relation to tropical island environments. But in the nineteenth and twentieth centuries the Crown in New Zealand operated under the prevailing Western world-view. This concept, with its components of measurability, rationality, order, and civilisation through scientific progress and extensive land cultivation, discounted the beliefs, knowledge systems, and land cultivation techniques of indigenous peoples.

30, Geoffrey Bolton, *Spoils and Spoilers. Australians Make Their Environment 1788-1980*, Sydney, George Allen & Unwin, 1981, pp 37-38

31, Bolton, p 40; Michael Roche, *History of Forestry*, Wellington, New Zealand Forestry Corporation Ltd with GP Books, 1990, pp 74, 135

32, Michael Roche, *Land and Water: Water and Soil Conservation and Central Government in New Zealand 1941-1988*, Wellington, Historical Branch Department of Internal Affairs, 1994, pp 20,25