## 100% Pure Imperial Ecology:

# Marketing the Environment in Antipodean Film and Advertising

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#### Introduction

This article examines two film franchises and two subsequent advertising campaigns spawned on the back of them. Examining processes of imaging, imperial administration and ecological discourse, it argues that contemporary advertising campaigns that sell Australian and New Zealand ecology to a global, long haul tourist industry are not a contradiction. Instead, they are symptomatic of an ambivalent attitude of extraction and preservation founded by the British Empire. Advertising campaigns premised upon selling 'pristine' antipodean space perpetuate two long functioning injustices. Firstly, they continue to commoditise ecologies as 'wilderness' even while the process makes them anything but. Secondly, they constitute a form of ecological racism that sees indigenous peoples as scopically marginalised guarantors for the 'purity' of a commodity that is polluted in the process.

In 2001 Peter Jackson's first film of *The Lord of the Rings* trilogy was released. Its impact on New Zealand's tourism and film industry has been the subject of a great deal of academic analysis (Mathjs and Pomerance 2006). In an era of what Justin Wyatt (2003) has described as 'high concept' movie making (in which the industrial practices of film making and promotional culture overlap), *The Lord of the Rings*, and its overall advertising budget of \$165 million US (\$40 Million for *The Fellowship*, \$50 Million for *The Two Towers* and \$75 million for *The Return of the King*), was inevitably going to function as a promotional vehicle for New Zealand itself. Ian Conrich (2006) has detailed the way in which *The Lord of the Rings* came to function as a mass merchandising vehicle, both for the many manufacturers and brands that hitched a ride and for New Zealand itself. As he points out, New Zealand advertised itself as the home of Middle Earth in order to sell both commodities produced by New Zealand industry and New Zealand as a commodity itself.

Importantly, New Zealand is not alone in this. At the other end of the decade Baz Lurhmann released his newest blockbuster, *Australia* (2008), having learned from the

rapid emergence of the 'Frodo Franchise' (Thompson 2007). Tourism Western Australia similarly identified the potential advantages to a vigorously pursued and carefully integrated tourism strategy. Like New Zealand's Pete Hodgson seven years earlier (Thompson 2007: 310–311), Australia's Federal Tourism Minister, Martin Ferguson, acknowledged the importance of the film franchise for Australia stating that, 'This movie will potentially be seen by tens of millions of people, and it will bring life to little-known aspects of Australia's extraordinary natural environment, history and indigenous culture' (Gosch 2008). Ferguson's words articulate the central points of this article. First, the relationship between both historical and contemporary representations of the natural environment. Second, the role that the relationship between film franchises and consequent advertising campaigns play in promoting the tourist consumption of antipodean space. Third, the representation of the indigenous cultures of New Zealand and Australia, and their positioning as interrelated aspects of the natural environment.

These films (and subsequent advertising vehicles) pose what initially appears to be a contradiction between the imaging of ecologies and the mass marketing of them that ultimately contributes to their destruction. In both cases, Australia and New Zealand brand themselves internationally as green, pure wilderness spaces. Yet, the very use of this branding runs counter to the logic that the long term impacts of climate change will likely destroy the very ecosystems that its iconography is built upon. On the contrary however, I shall argue that they can be considered to fit within a sociopolitical framework that explains the apparent contradiction. Such texts are modern manifestations of an historical tendency to image antipodean space within a process of imperial ecological domination. Denis Cosgrove (1984) has argued that from the outset of European arrival in Australia (and subsequently New Zealand), entrants intentionally and unintentionally brought with them a host of ecologically alien animals and bacteria as they set about reengineering the places they settled in the image of the places they had left behind. Such a process was inevitably catastrophic for both the ecosystems they settled and the indigenous populations already living there. Nevertheless, Cosgrove argues, such catastrophe was not necessarily at odds with the interests of the newly arrived settlers. This was because the destruction that new bacteria, plants and animals brought (especially sheep and cattle in Australia) disproportionately affected the indigenous peoples already settled. Destruction of their way of life and the depopulation that followed allowed European settlers, in a self fulfilling prophecy, to see Australia as Terra Nullius: land without people.

This reengineering did not just take place on the biological level. Antipodean space was also reengineered in the visual imaginations of both its present and future settlers through paintings and photographs. The outset of significant European exploration of Australia and New Zealand in the late 1760s not only coincided with the first documented example of photography described as a process (specifically the famous description of the photographic process by French author Tiphaigne de le Roche in his 1760 fiction novel Giphantie), it also marked a wider moment in British Imperial expansion that bore its own particular relationship to the visual representation of the new spaces being 'discovered'. As James Ryan has argued, the process of imperial expansion and the Victorian taste for landscape photography were mutually reinforcing: 'the very idea of Empire depended in part on an idea of landscape, as both controlled space and the means of representing such control, on a global scale' (Ryan 1997: 46). Ryan points out that landscape 'was not something "out there" waiting to be recorded on glass plates or sketchpads', but, instead, 'amounted to a particular way of picturing and imaginatively appropriating space by a detached, individual spectator' (46). Frequently, these spaces were imaginatively appropriated as empty, untamed wilderness spaces. Thus, while antipodean space was biologically, ecologically and pathogenically (and often violently) reengineered for European settlement, it was also undergoing a visual reengineering. Both Cosgrove and Ryan point out that neither New Zealand nor Australia were initially actual wilderness spaces (in the sense of lacking human settlement), but that they were transformed into such in two ways. Firstly, in the imaginations of imperial subjects consuming images of wilderness landscapes, and, secondly, as a result of the thousands of Maori and Aboriginal people who died either through human pathogens (such as small pox) or violent wars facilitated by the availability of European weaponry (King 2003: 131).

Not all pictorial representations of antipodean landscape were empty: there are also many examples of such images that contained Aboriginal and Maori people. But, as Ryan asserts, even here many photos functioned amongst a wider set of optical apparatus and anthropological processes designed to demonstrate apparent European superiority. Amongst all of this the contradiction of presenting these spaces as both empty and the home of indigenous people at the same time does not appear to have been raised: a practice that continues in the adverts and films I analyse in this article.

By the same token, antipodean space and ecology is still being reengineered today, this time as an attraction: literally engineered for advertisements and films through

digital media processes by which they are generated, post-produced and disseminated. Like many paintings and photographs of nineteenth century colonised space, today's filmed and advertised images function across multiple media forms to promote antipodean landscape to potential tourists and settlers. As Paul Foss (1981) argues:

Right from the beginning (and do we not endlessly return to this theme?) the antipodal image was nothing but an image necessary for European expansion. It was a simulacrum concealing what it was not. The non-place of the Antipodes, with all its abundance of space and contrarity, only represents a structural reversal of everything which seemed to limit the European ideal: room to grow in untold wealth, the "opposite earth" whose image dissolves the appearance of a nothing too close to home. In the great leap forth of the European powers, nascent for a time but rapidly to increase thereafter, it is only the counterpart of the threat of territorial restriction. (29–30)

These themes are still prevalent in the films and advertisements at issue here. Where past configurations frequently represented indigenous people as absent, the new representations rationalise them within a new but equally problematic scheme as 'natural' representatives and guarantors of ecological purity to a space ironically purchased through environmentally costly long haul flights. With added irony, while they sell an 'empty', 'natural', 'wilderness' space, these images are in fact hyperindustrialised new media objects: not empty but full, packed with data, code, programming, labour and even the carbon that inevitably results from their creation and, if they are watched online as many are intended, from their distribution and exhibition (Cubitt et al 2010). With this in mind, I shall now turn our attention to the three areas listed above. First, the historical and contemporary representations of antipodean space. Second, the relationship between film, advertising and new media distribution channels, and the significance they hold for the representation of antipodean space. Third, the specific representations of Australian and New Zealand ecologies both within national and global public imaginations and within an ecological order that is already beginning to break down.

### **Historical Representations of Antipodean Ecology**

Before discussing Eurocentric representational systems by which antipodean landscapes and ecologies came to be represented, it is worth noting that New Zealand Maori and Australian Aboriginal artists were representing the landscape and their own place in it for hundreds and thousands of years, respectively, before the arrival of European settlers. Typically, these representations were not regarded as of comparable value by the majority of early European painters, many of whom ignored such work alltogether. In this respect, the painting practices taking place in both Australia and New Zealand at the time of imperial expansion offer an insight into the way in which the imaging and advertising of these spaces is linked to the social, cultural, political and ecological events taking place at the time that European settlers arrived in the Antipodes.

Romantic painters frequently portrayed empty 'wilderness' landscapes. As John Urry (1995) has explained, the industrial revolution and industrialised forms of transport made it ever easier for middle class (and then even working class) travellers to escape the industrial grime of English cities (175). This brought with it both mass tourism and, in turn, a shift in the symbolic relationship to the landscape. Specifically, the concept of wilderness shifted from representing a challenge to Enlightenment notions of order to representing liberation for the Romantic Movement that sought escape from the excessive and repressive organising modes of industrialisation borne out of the Enlightenment. While this happened first in the Lake District and Scotland, it was not long before expansion of the British Empire sent such discursive constructions further afield. In this sense Australia, New Zealand and the 'wilderness' they appeared to offer were ripe for the European Romantic Painters that constituted some of the first global tourists of the industrial era. However, it was not only painting that operated within this discursive framework. Inevitably, photography also operated to construct antipodean space as a 'wilderness' space. As Geoffrey Batchen (2000) has argued, Australia's European phase of settlement took place at the 'moment that in Europe first induced a general desire to photograph and ultimately led to the invention of a marketable photographic process in 1839' (29). From this, he argues, Australia can be seen to be 'one of the few national entities that has been from its outset framed by a photo-scopic episteme' (29).

It is important to note here that there is a danger with my argument in its potential to imply New Zealand and Australia are entirely comparable and equivalent—geographically, culturally, ecologically and historically—when in fact the colonisation

of each land and peoples developed very differently. What did remain constant in this process however, was the origin of the colonisers, the empire under which both spaces and cultures functioned and, by extension, the visual cultural imperialism that ensued. As such, photographs became a staple of an imperial scopic regime that materialised the colonial spaces in the minds of colonised and colonialists alike. As Anne Maxwell has argued in her work on colonial photography, the period between 1850–1915 witnessed the emergence of two types of mass produced imaging that shaped the way colonies and their people came to be portrayed in twentieth century popular culture. The first was live displays of 'primitive' peoples staged at great exhibitions in urban centres, the second were the photographs that constituted a part of the emergence mass international tourism industry at the time (Maxwell 2000: ix). Maxwell's work makes clear that images of Australia and New Zealand will not just have functioned to represent faraway places; they operated within a wider framework of industrial and commercial organisation that emerged as a part of the British empire.

As both Thomas Richards and Simon Cook have argued, the imaging and storing of information (constituting what Cook argues to have been the first examples of a new media database culture) about people, places, wildlife and objects was a function of late Victorian Imperial culture. Such information, Richards (1993) argues, helped constitute what he has called the first cybernetic empire in history: an empire held together more by information than physical power. In this instance, images of place and peoples constituted information that would have helped order and administer empire. By the same token, images would have fed into the emergent scopic regimes of empire that ordered and administered indigenous peoples in another way: placing them before the lens and artist as objects to be recorded and commodified (in the case of the empire marketing board).

While image practices capturing peoples and places were implicated in the ordering and administration of such a cybernetic empire, they were also utilised in the formation of new discourses and avenues of knowledge. One of these new avenues of knowledge came to be that of ecology. As Peder Anker (2001) has argued, ecology was itself the product of an empire that sought to effectively maintain global reach, efficient extraction of resources and the control of its peoples necessary to help facilitate this. The formation of ecological thinking, he argues, coincided with the twilight period of the British Empire: 'Ecology grew out of the imperial administrative and political culture ... [that] urgently needed tools for understanding human relations

to nature and society in order to set administrative economic policies for landscapes, population settlement, and social control' (Anker 2001: 1–4).

By the same token, and echoing both Anne Maxwell and Thomas Richards, James Ryan has made two interrelated assertions. First, that the very idea of Empire depended in part upon a conception of landscape, 'as both controlled space and the means of representing such control, on a global scale' (Ryan 1997: 46). Second, that early photographers operating within these imperial spaces were not either commercial and art photographers capturing landscapes on the one hand or scientific/government survey photographers recording views on the other. Ryan argues that it would be incorrect to place a categorical division between photography's 'discursive spaces', notably between the 'view' in science and the 'landscape' in art. Instead, he argues, conceptions of commercial and artistic 'landscape' often included within it those of scientific/surveillance 'views' which operated within the same contexts, and frequently functioned to the same effect (46–47).

Similarly, it would be incorrect to suggest that the imaging of antipodean space was entirely premised upon Romantic aesthetics and its rejectionist opposition of industrialisation. As Jeanette Hoorn (2007) has pointed out, the making of Australia's 'white landscape' was equally premised upon a European pastoral tradition that agriculturally industrialised the landscape and invested it with meaning as a facilitator of capitalist bounty. Indeed, the two tropes of both Pastoralism as creator of capital wealth and Romanticism as imaginative alternative to urban industrialisation run heavily throughout both *Australia* and *The Lord of the Rings*. By contrast, however, the spin-off advertising campaigns only concentrated upon Romantic wilderness.

Here then we build up a complex picture of the multifaceted relationships between practices of artistic, commercial and scientific landscape imaging and processes of information distribution, administration, tourism and ecological discourse that existed during the British Empire. Likewise, both *Lord of the Rings, Australia* and their attendant advertising campaigns deploy historical, imperial conventions of landscape imaging that both elevate their relevant countries as ecological tourist spaces at the same time as they rationalise such spaces under the auspices of a new empire of capital, centred not in one place but across the globe.

#### Film and Advertising: Ecological Space as Attraction

In recent years a number of theorists (Miller 1990; Caldwell 2000; Wyatt 2003; Gurevitch 2010) have argued that many aesthetic and business strategies of both spot advertising industries and Hollywood film production cannot be seen as operating in isolation from each other. Instead, spectacular moments in films are constructed to function as advertisements across YouTube, television trailers and news reports. Likewise, advertisements created by workers who move between the film, television and advertising industries now frequently replicate the logic of Hollywood spectacle, and in so doing attract viewers virally through YouTube. This is also the logic of the 100% Pure New Zealand advert and the Come Walkabout ads. In both cases the advertising of New Zealand and Australia is an explicit consequence of Hollywood film: piggybacking the franchises but also giving them added coverage in their own right. In both cases these adverts also function as YouTube attractions, presenting the viewer with a romantic aesthetic sublime.

Made by Saatchi & Saatchi and Weta Digital, the 100% Pure New Zealand advert opens with a shot of the sea followed by the emergence of a CG mountainscape complete with snow capped peaks. Accompanied by a soundtrack reminiscent of *The* Lord of the Rings, the narrator of the advert refers to the Maori legend (without explicitly referencing it as such) of Maui catching the fish that is now the North Island (Te Ika-a-Māui: the Maori word for North Island literally translating into 'the fish of Maui'). Accompanying helicam shots of New Zealand bush and mountains that characterised the opening of Lord of the Rings follow as the narrator emphasises the length of time the land 'waited' for humans to set foot upon it before declaring it the 'youngest country on earth'. At this point the advert shifts register from CGI and spectacular landscape to something closer to a corporate promotional music video featuring a Benetton range of young tourists (mainly white and Asian, with a single token black character) enjoying New Zealand as a national park. In this section couples and small groups race each other up sand dunes, push bikes in conversation along tree lined avenues, swim with dolphins and play rugby with the locals. In keeping with the first forty seconds, this music segment is interspersed by images of the landscape that present New Zealand as a 'wilderness': people walk, ride, drive and surf through this space but always as individuals or in groups of two or three; never amongst crowds of other tourists or even tourist industry employees. The advert ends on an iconic shot of the Milford Sounds that can itself be traced back to some of the earliest European images made of New Zealand in the

nineteenth century .Throughout the 100% Pure New Zealand advert, as with the The Lord of the Rings films, the aesthetic of the landscape continually evokes a romantic style that characterised the imaging practices of European painters who first encountered New Zealand landscape.

With the emergence of CGI, the visual language that resonates throughout the trilogy and its accompanying advert is not simply a product of careful cinematography. It is also the product of a digital matte painting process that echoes precedents found in romantic painting and their common visual structure. Like the nineteenth century 'sublime' established by artists like Goya, Turner, Friedrich and Bierstadt, the matte paintings of Anne Taunga and Max Dennison's Weta teams are historically interrelated. In a similar manner to *The Lord of the Rings, Australia's* aesthetic is also culturally implicated in visual modes of the past. Unsurprisingly, given that Tourism Western Australia sought to replicate New Zealand's successful campaign, Baz Luhrmann's *Come Walkabout* can also be seen to parallel von Guerard's romantic construction of the Australian landscape. Here, again, the landscape is presented as a wilderness paradise, set in opposition to the noise of the technologised urban space. The imaging of the landscape is reminiscent of the *100% Pure New Zealand* advert. Just as the aesthetic in that advert resembled its earlier filmic predecessor, *Come Walkabout* resembles Australia's romantic aesthetic.

As with *The Lord of the Rings* and *100% Pure New Zealand* we have an ironic contradiction here. Lurhmann deploys a wilderness aesthetic in both his film, and as the default aesthetic of the subsequent advert, that was itself deeply implicated in the process of ecological destruction and ecological imperialism. This visual discourse was tied up in both the construction of 'wilderness' in Australia and the destruction and displacement of Aboriginal Australians. In *Australia* it is the idyllic life of cattle ranching that brings European settler and Aboriginal boy together through a partnership in the wilderness outback that struggles against the negative forces of British Imperialism back in Darwin. Sadly, the reality was very different:

There were few other places in the British Empire where the indigenous population was so quickly dehumanised, and so systematically dispossessed and displaced ... Australia was not empty, although the aboriginal system of subsistence necessitated dispersed, low density settlement. Sheep were deeply implicated in the displacement of indigenous people as well as in bringing about environmental change. (Beinart and Huges 2007: 95)

But while the film's initial presentation of imperial oppression of the Aboriginal boy Nullah may appear to be born out of progressive sympathies, it nonetheless falls into an older discursive trap. The film's representation of Nullah as both a symbol of Australian wilderness and of innocence free of the imperial corruption is in fact the product of a Romantic discourse that was deeply implicated in the imaging and functioning of imperial power.

Baz Luhrmann's *Come Walkabout* advert offers Australian 'wilderness' as a similarly packaged attraction. As it was directed by Luhrmann himself, the link between spectacular romantic landscape as a function of both Hollywood film and international advertising is more explicit. Equally, Luhrmann uses a technique he has deployed before, utilising audience knowledge of his preceding film as a shorthand with which to compress narrative meaning down to a series of interrelated images (Gurevitch 2009: 143–158). In this advert the young hero of the *Australia* film is transported from the 1940s Darwin of that narrative to contemporary New York where he magically transports an overworked career woman to the Australian outback (Kimberley, Western Australia). Like the *100% Pure New Zealand* advert, the outback here functions as a wilderness national park in which our unnamed female protagonist rediscovers herself once free of the constricting baggage of the world's global metropolis.

The relationship between film, advertising and romanticism is not new, as Colin Campbell (1987) has explored and Boden and Williams (2002) have revisited. With both our New Zealand and Australian film/advertisement examples, however, the link I refer to is not simply that of romanticism and advertising but also between notions of authenticity and attraction. As Urry points out, the Romantic movement was responsible for more than just a re-articulation of the meaning attached to the concept of wilderness and its aesthetic representation. Rather, the Romantic movement redefined the way in which industrialised culture related to, and experienced, the world. As he argues in his seminal work on the tourist gaze:

In the late eighteenth and early nineteenth centuries there was a shift in values connected with "the Romantic movement". Emphasis was placed on the intensity of motion and sensation, on poetic mystery rather than intellectual clarity, and on individual hedonistic expression ... The effects of Romanticism were to suggest that one could feel emotional about the natural world and scenery. Individual pleasures were to be derived from an appreciation of impressive physical sights. Romanticism implied that

the residents of the newly emerging industrial towns and cities could greatly benefit from spending short periods away from them, viewing or experiencing nature. (Urry 2005: 20)

Romanticism, he goes on to argue, led to the development of scenic tourism. Here was a shift, not only in the signification of the natural world but also on the terms with which one engaged with it. Notions of emotional and authentic experience were elevated to a new significance, and, for Urry, the scopic regime of the tourist gaze has inherited some of the Romantic value systems that initiated it.

For Dean MacCannell the notion of authentic experience similarly pervades the tourist process and is useful for us in understanding the strategy deployed in the adverts analysed here. MacCannell asserts that the value of authenticity, and experience of the authentic, is elevated in modern social orders that, as opposed to pre-modern societies, are distanced from the functioning of close knit interpersonal relations. This, MacCannell argues, has lead to the notion of 'staged authenticity': the desire to experience authenticity such that contemporary tourist industries have developed as agencies that can offer such experience, all be it in the paradox of a staged version. There are two particularly interesting facets of MacCannell's argument. The first is that, quoting Erving Goffman, he points to a separation in modern societies between the front and back regions of social establishment in which guests see the front (a dining room for example) while 'the back is the place where members of the home retire between performances to relax and prepare' (MacCannell 1999: 92). The second interesting facet is MacCannell's description of the tourist attraction. Here MacCannell refers specifically to the attraction as tourist attraction, but, as we shall see, there is a particularly telling slippage between MacCannell's description of 'staging' and the 'attraction' as it refers to tourist processes and the attraction as it refers to cinematic imaging. Perhaps this is best summarised by a consideration of the following: both the adverts and the films we are considering here use CGI imaging of antipodean ecology to attract tourists. Both audiovisual forms act as attractions by deploying such CGI, and both audiovisual forms offer 'staged authenticity' of the ecology. In this sense we can see CGI imaging of a 'pure wilderness' that does not and has never existed as the ultimate form of staged authenticity. What viewers see is the 'front' end of this process. What they do not see, and are encouraged not to think about, are the industrial server farms of supercomputers and the extreme industrial work practices deployed by Weta digital in Wellington, New Zealand to facilitate this front end 'staged authenticity'.

As Conrich points out, in *The Lord of the Rings*:

the spectacularity and sublimeness of the New Zealand landscape, this Edenic garden, is being exploited; the local myth of the resourceful pioneer and enterprising craftsman harnessed to manufacture a fantasy of folk culture; a distant country which is on the edge of the world cleverly manoeuvred and adjusted into a perceived Middle Earth which can be reached through mass culture and corporate packaging. (Conrich 2006: 119)

With intriguing sophistication, *The Lord of the Rings* franchise was able to function as both the vehicle for a fantasy story and the advertising of a national tourist industry. On the one hand the digital imaging techniques of Wellington's Weta digital workshops helped propel the trilogy into the top tier of Hollywood franchises (usually premised upon the creation of imaging and spaces that cannot possibly exist outside the digital attraction). On the other hand, these effects also propelled New Zealand into the top tier of film industry cross promotion: like the action figures or t-shirts that accompanied Lucas and Spielberg films, New Zealand space and specifically New Zealand's 'unique' and 'authentic' geology and ecology have come to function as a product to be bought by fans of the franchise.

#### From Commodity Racism to Ecological Racism

Writing about *The Lord of the Rings*, Sean Cubitt (2006) has described what he terms an 'ecological aesthetic' (65). This aesthetic, he argues, 'became totemic of the country's self-understanding as an environmental paradise kept free by sundering seas of the industrial and genetic pollution of Asia and the North Atlantic nations' (65). Cubitt's assessment is insightful, not only for analysis of the film but also for the *100% Pure New Zealand* advert that followed. Ironically, and as Cubitt acknowledges, this self-understanding is riddled with contradictions. Like the landscape painters and photographers of the past two centuries, this articulation of New Zealand elides the fact that such an environmental paradise is founded on waves of ecological destruction that were facilitated by imperial industrial expansion—and before that by the arrival of the Maori people and the mammals they brought with them (King 2003: 48-50). This process continues in today's contexts: New Zealand and Australia both function as an ecological paradise in so far as they can be imaged and packaged to precisely those European, Asian and North Atlantic

industrial capital empires they set themselves against (and advertise to). Through this contrast we see a tension arise between conservation of ecology and conservative preservation of culture. As Cubitt (2006) points out, in *The Lord of the Rings* trilogy:

the fear of contamination that belongs to the conservation movement meets the racism of the conservative protection of local culture. In our case, the strange symbolic absence of Maori from the re-imagined New Zealand of the films suggests that the culture to be protected is not that of the first inhabitants, but the civilisation of the Pakeha settlers. (69)

By contrast to the films, however, the 100% Pure New Zealand (a title that makes explicit the idea that New Zealand is a desirable destination because it has been successful in its containment of social and ecological contamination) does open by citing and visualising Maori legend and features Maori twice in the advert. First in the form of a facially tattooed Maori woman greeting a Pakeha visitor with a hongi (pressing noses together in greeting) and, second, in the form of a group of young Maori boys performing the Haka for onlooking visitors. In both cases of these representations, a similar racism can be detected in the 100% Pure New Zealand as operates in The Lord of the Rings: I shall call this racism ecological racism. In the 100% Pure New Zealand adverts Maori figures are not excluded but are nevertheless used to represent precisely the terms of the conservative conservation movement described by Cubitt. It is interesting to note that with ecological awareness of the destruction of ecosystems that arose during the British Empire went a concern for conservation of the disappearing biology. Within this biology, indigenous peoples themselves were included. As Ryan points out, the formation of organisations such as the APS and the ESL (Aborigines Protection Agency and the Ethnological Society of London) in the 1830s and 1840s were symptomatic of a wider concern with securing reliable anthropological information:

Much of this enterprise, and the place of photography within it, was motivated by the belief that Aboriginal races were vanishing before the onslaught of "civilisation" and such peoples and their culture ought to be recorded urgently before they disappeared for ever. (Ryan 1997: 140)

Thus photography was enlisted in the imperial effort to document and preserve knowledge of indigenous peoples, their ways of life and their ecological surroundings that were simultaneously facing the onslaught of destruction in the face of the very same imperial forces. As with the Victorians of the nineteenth century, so with the

advertisers of the twenty first century: the Maori peoples in the 100% Pure New Zealand adverts and Australian Aborigines in Come Walkabout (symptomatised in Nullah) are rationalised under a discourse of ecological preservation. Here however, preservation is represented as having been achieved, and it is a selling point: indigenous people and traditional customs have survived and the apparently pristine ecology of the 'wilderness' landscape acts as both a testament to that fact and a symptom of it. Far from representing impurity or contamination, the Maori and Australian Aboriginal figures in these adverts represent the opposite, and more: not just social harmony and ecological purity, but also unique access to that purity. In both cases it is notable that the Maori people are represented specifically for the sensory and visual consumption of the Asian and European/American tourists.

Anne McClintock has explored the play of racism and contamination/purity discourse in specific relationship to the emergence of commodity culture during the rise of the British Empire. In her seminal essay, 'Soft Soaping Empire' (2005), McClintock asserts that a paradigm shift took place in the culture of imperialism over the final decades of the nineteenth century:

This was the shift from "scientific" racism—embodied as it was in anthropological, scientific and medical journals, travel writing and ethnographies—to what can be called commodity racism. Commodity racism—in the specifically Victorian forms of advertising and commodity spectacle, the imperial Expositions and the museum movement—converted the imperial progress narrative into mass-produced consumer spectacles. (130)

With this in mind, we could argue that we have now a similar shift, but this time toward ecological racism. Here progress is represented as the shedding of everyday commodities in favour of a higher commodity: untouched, virgin ecology. In this sense spectacle still operates as McClintock describes during the commodity racism phase. The exception with ecological racism is that the 'native' is represented in this spectacle as the gateway to the promised land; the figure that encourages by example the shedding of commodities in favour of a higher (if temporary) state of existence. The reason for this shift from commodity racism to ecological racism is best described by John Urry when he addresses the transformation in perceptions of Aborigines in Australia.

On the Bicentenary of the European settlement of Australia, Urry states, the government found it necessary to compensate Aborigines for the years of

indifference and neglect. This 'was apparently because tourists and journalists were increasingly finding Aboriginal culture and practices are no longer "polluting" but part (or even the most important part) of the exotic attractions of Australia' (Urry 1995: 188–189). What Urry describes here marks the shift of notions of pollution in relation to the commodity. Soap figured as the commodity that helped the white man in his 'burden' of bringing order and cleanliness to imperial outposts not yet developed beyond the dirt of the 'natural' world. The natural world here was itself a form of pollution which 'the natives' had to be lifted with the aid of white, western industrial technology. Across the twentieth century however, the natural world lost its connotations as a pollutant of civilisation.

Thus Aborigines, originally presented as in need of extraction from the natural world for their own good, became by mid-century pollutants of that natural world. With their third transformation from pollutant back to signifier of exotic locale the discourse had almost moved full circle but for one critical difference. Just as the solution to the Victorian white man's burden was Pears soap, so there is now a solution to the global elite's burden in the form of dirt. First we see the red dirt of the outback in Nullah's footprint before he later drops a handful of earth into his protagonist's hand. The burden here is technologised life: symptomatic of the alienation of metropolitan living. In New York, as Nullah passes the television and computer they magically switch off, their pollution of data halted in its tracks, leaving him to transport the potential tourist literally—rather than metaphorically through the restrictive automobility that she could gain with the use of media technologies (Miller 2006)—to the outback. Here, dirt is not pollution but the opposite. Technology and data is pollution and dirt signifies the ultimate commodity and solution: nature as exotic locale.

In this context, Nullah signifies an exotic attraction. In *Australia* this attraction is an attraction of 'staged authenticity' as MacCannell describes it, but it is also a cinematic attraction in the sense that Tom Gunning (1990) discusses the cinema of the attractions. In the *Come Walkabout* advert, Nullah operates as the promise of the attraction that will reward the arriving tourist. At the same time the advert's use of Nullah, its digitally manipulated aesthetic, and its carefully chosen shots are themselves the attraction. It is as if the holiday to Australia merely acts as confirmation of the attraction and confirmation of the staged authenticity consumed before the plane ticket has even been purchased. As MacCannell would argue, the confirmation that is acted out is one of leaving modern society behind to 'experience' a more 'authentic' order that does not have the 'front' and the 'back'. The promise of

the *Walkabout* adverts is that there is no front and back, simply all one 'natural' ecology. The irony is that the advert itself functions as the front and Nullah acts as a figure promising to transport the tourist beyond such a binary. Here then, Nullah stands for the landscape and its apparent ecological purity, seemingly devoid of open cast mining and land disputes. It is here that we witness ecological racism: the presentation of a racial and ecological fantasy in the service of the contrary.

Like the romantic landscapes and therefore the advert itself that they are bookended within, Maori and Australian Aborigine people and their customs exist here as an attraction that signifies access to the nation as a globalised, ecologically pure national park. Ironically, the national park movement was both a product of industrial urbanisation (and the philosophical distinctions that then arose between the natural world and urbanized industrialised space) and a symptom of the imperial ecological war waged upon indigenous cultures (Cosgrove 2008: 109–113). As Denis Cosgrove has argued, the history of the nineteenth century push to preserve wilderness space that drove the national park movement has its origins in regions of the large scale European colonisations of Canada, South Africa, New Zealand and Australia. In such areas.

national parks have occupied areas regarded as "wilderness", the last preserves of lands untouched by the outward expansion of European imperium. In most such areas former modes of dwelling by indigenous peoples had been expunged, often violently, not many years before the declaration of wilderness status. (110)

The problem with this representation is not just that it is viewed through a simplified, reductionist and romantic lens that treats indigenous peoples as gate keepers of ecological purity, and as recipients of the gaze and its scopic power. It is also that the advert itself is a testament to the contradiction of a global long haul tourist industry intent on supplying such authentic ecological purity in spite of the damage it will ultimately do to antipodean ecosystems.

In all of this, the image (both its amateur and professional/industrial production and consumption) plays a central role. In the 100% Pure New Zealand advert tourists are invited specifically in relation to the dynamics of the digital camera. A man and a woman play on a beach, making patterns on the sand, filming it and each other, making explicit a practice that is played out millions of times a day: experience affirmed through the window of the digital camera LCD screen and the record that it

provides. There is a certain circularity in the LCD frame that returns to original imperial imaging practices of the rectangular canvases. In both cases, the rectangular frame operates as a border around the stage-managed image of ecology that proliferated in Australia and New Zealand with European settlers. It is no surprise that the camera sits in the hands of the tourists. Like Nullah's passing of the LCD screens in the New York woman's apartment, the screen here is a commodity of the traveller, an object brought from, and taken back to, their industrial home to provide testimony to the pure environment they can experience only in passing.

### Imperial Ecology

Just as early Romantic image practices of the British Empire were involved in the processes of ecological warfare conducted upon the new landscapes and their indigenous population, recently emergent digital image practices are similarly involved in the social, cultural and political dynamics of global climate change and local ecological degradation. As Urry (1995) has pointed out:

As the means for recording people's memories have been democratised, this has further boosted the development of tourism, particularly the visiting of places where environmentally unpolluted landscapes can be viewed and captured. And yet, of course, such places are increasingly polluted in another sense, through the huge numbers of visitors all seeking to photograph rather similar scenes ... So photography has heightened the contradictions involved in the relationship between tourism and the environment. It has increased the attractions of particular kinds of unpolluted landscapes and hence of the demands to protect or conserve such environments: and it has in turn done much to worsen such environments through increasing the numbers and concentration of visitors all seeking to capture particularly memorable views. (176)

To this we could add that with the many billions of photographs uploaded online every year such tourist practices constitute a form of image pollution as more and more data is expended storing (and even making searchable) so many images. Flickr has claimed that it passed the two billion photo uploads mark in 2007, and Facebook that it had crossed the ten billion photo uploads in 2008. The numbers of photos now produced are surely constituting a form of pollution in the real world terms of data

transfer required of carbon intensive server farms if nothing else. As Sean Cubitt would point out, such image data storage and retrieval now constitutes a threat to the global environment in carbon terms in its own right (Cubitt et al 2010). With this we could say that modern day media ecologies inadvertently pick up the baton of ecological warfare conducted during the height of the British Empire. Just as Richards argues that the Empire operated as a cybernetic empire, gathering and distributing information across the globe, so we could say that the global flows of socially networked tourists, broadcasting themselves (YouTube's now famous tagline) take part in the new cybernetic nation-empires (Okur 2007: 61).

To end on the question posed at the start: what are the implications of these modes of imaging for Australian and New Zealand ecologies? To what extent can these modes be considered neo-colonial reflections of national public imaginations and within an ecological order that is beginning to break down at the same time as it crosses global boundaries? Far from marking a contradiction in representation of ecology on the one hand and the sale of that ecology to a global tourist industry that will ultimately destroy it, I have argued that the image and narrative practices of the 100% Pure New Zealand and the Come Walkabout adverts can be contextualised within image practices that arose with the re-articulation of both Australia and New Zealand as imperial colonies. To an extent, these adverts make implicit the continued role of both spaces as national park imperial outposts. This of course requires a far looser definition of empire to encompass the global concentration of capital still based in North America though increasingly also South East Asia. It is interesting to note, for instance, that Lurhmann's Come Walkabout advert was filmed differently for both the North American/European markets and the South East Asian Market. In one advert (YouTube 'Come Walkabout New York') the audience is taken through the narrative that begins with a Caucasian woman in New York and moves to the Australian outback, in the other advert (YouTube 'Come Walkabout Shanghai') the narrative focuses upon an Asian man in Shanghai who is transported to Australia. Nevertheless, the representations of both spaces in these adverts can be said to follow a representational pattern laid down in the eighteenth and nineteenth centuries that connects ecology, imaging and imperialism in a manner that communicates more about extraction than it does about preservation or stewardship.

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## **Bibliography**

Anker P (2001) *Imperial Ecologies: Environmental Order in the British Empire, 1895–1945* Harvard University Press London.

Batchen G (2000) Each Wild Idea: Writing Photography History MIT Press London.

Beinart W and Huges L (2007) *Environment and Empire* Oxford University Press London.

Boden S and Williams S (2002) 'Consumption and Emotion: The Romantic Ethic Revisited' in *Sociology Journal* 36.3 493–512.

Caldwell J T (2000) 'Modes of Production: The Televisual Apparatus' in Stam R and Miller T (eds) *Film and Theory: An Anthology* 125–144 Blackwell Oxford.

Campbell C (1987) The Romantic Ethic and the Spirit of Modern Consumerism Oxford Blackwell.

Conrich I (2006) 'A Land of Make Believe: Merchandising and Consumption of *The Lord of the Rings*' in Mathjs E and Pomerance M (eds) *From Hobbits to Hollywood:* Essays on Peter Jackson's Lord of the Rings 119–136 Rodopi New York.

Cosgrove D (1984) 'Sublime Nature: Landscape and Industrial Capitalism' in Cosgrove D Social Formation and Symbolic Landscape Croom Helm London.

Cosgrove D (2008) 'Wilderness, Habitable Earth and the Nation' in Cosgrove D Geography and Vision: Seeing, Imaging and Representing the World I. B. Taurus London.

Cubitt S (2006) 'The Fading of the Elves' in Mathjs E and Pomerance M *From Hobbits to Hollywood: Essays on Peter Jackson's Lord of the Rings* 65–80 Rodopi New York.

Cubitt S, Hassan R and Volkmer I (2010) 'Does Cloud Computing Have a Silver Lining' accepted for *Media, Culture and Society* 32.6.

Foss P (1981) 'Theatrum Nondum Cognitorum' in Botsman P, Burns, C and Hutchings, P (eds) *The Foreign Bodies Papers* Local Consumption Sydney.

Gosch E (2008) 'See the Film, Then Come Visit' The Australian 15th June.

Gunning T (1990) 'The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde' in Elsaesser T (ed) *Early Cinema: Space, Frame, Narrative* 56–62 Macmillan London.

Gurevitch L (2009) 'Problematic Dichotomies: Narrative and Spectacle in Advertising and Media Scholarship' *Popular Narrative Media* 2.2 143–158.

Gurevitch L (2010) 'The Cinemas of Transactions: The Exchangeable Currency of the Digital Attraction' *Television and New Media* 11.5 367–385.

Hoorn J (2007) *Australian Pastoral: The Making of a White Landscape* Freemantle Press Freemantle.

King M (2003) A Penguin History of New Zealand Penguin Auckland.

Mathjs E and Pomerance M (eds) (2006) From Hobbits to Hollywood: Essays on Peter Jackson's Lord of the Rings Rodopi New York.

Maxwell A (2000) Colonial Photography: Representations of the 'Native' and the Making of European Identities Leicester University Press London.

McClintock A (2005) 'Soft Soaping Empire: Commodity Racism and Imperial Advertising' in Robertson G et al *Travellers Tales: Narratives of Home and Displacement* 128–152 Routledge London.

Miller M C (1990) 'Advertising: End of Story' in *Seeing Through Movies* New York Pantheon Books.

Miller J H (2006) 'Virtual Automobility: Two Ways to Get a Life' in Bohm et al *Against Automobility* 193–207 Blackwell Oxford.

Okur M A (2007) 'Rethinking Empire After 9/11: Towards a New Ontological Image of World Order' in *Perceptions* Winter 2007 61–93.

Richards T (1993) The Imperial Archive: Knowledge and the Fantasy of Empire Verso London.

Ryan J (1997) 'Framing the View' in *Picturing Empire: Photography and the Visualisation of the British Empire* 45–72 Reaktion Books London.

Ryan J (1997) 'Photographing the Natives' in *Picturing Empire: Photography and the Visualisation of the British Empire* 141–181 Reaktion Books London.

Smith B (1960) *European Vision and the South Pacific*, 1768–1850 Oxford University Press London.

Thompson K (2007) *The Frodo Franchise: How* Lord of the Rings *Became a Hollywood Blockbuster And Put New Zealand OnThe Map* Penguin London.

Urry J (1995) Consuming Places Routledge London.

Urry J (2005) The Tourist Gaze Sage London.

Wyatt J (2003) *High Concept: Movies and Marketing in Hollywood* University of Texas Austin.

YouTube 'Come Walkabout New York' accessed 27/10/2010 available at <a href="http://www.youtube.com/watch?v=BcYYSIYLcwg&feature=related">http://www.youtube.com/watch?v=BcYYSIYLcwg&feature=related</a>.

YouTube 'Come Walkabout Shanghai' accessed 27/10/2010 available at <a href="http://www.youtube.com/watch?v=odFJyKZNjNk&feature=related">http://www.youtube.com/watch?v=odFJyKZNjNk&feature=related</a>.

## Climate Change in the Media: Climate Denial, lan Plimer, and the Staging of Public Debate

Angi Buettner

#### Introduction

This article deals with the public and media debates about climate change. It critiques the media framing and staging of these debates, particularly in relation to notions of journalistic objectivity and balance. The logic of the media in covering climate change, and in creating scientific credibility, is discussed on the example of what became known as the Monbiot vs Plimer debate. After George Monbiot (well-known for his environmental journalism and advocacy) criticised lan Plimer (Australian professor of Mining Geology and quasi-climate scientist) for a book he had published denying climate change, Plimer challenged Monbiot to a public debate on the science of climate change.

"Climate science and climate change denial is a strange area" (Doherty). The more the scientific consensus on anthropogenic climate change consolidates, and the more impacts of climate change become visible (indicating that urgent and drastic action is needed), the louder climate change denial becomes in the debate, "belief" in climate change dwindles, and a growing number of politicians decides to support environmental policies that do not address climate change. A global deal to tackle climate change in 2010 (at the climate summit in Mexico) is predicted to not eventuate ("Global Warming Deal Unlikely"). There are complex political, financial, and psychological reasons and explanations for this (see for example Dickinson; Hamilton "Social Psychology of Climate Change"; Marshall).

It is useful to consider how these political developments are reflected in the media coverage of climate change issues. In 2009 Ian Plimer, an Australian geologist,

<sup>1 2009</sup> and 2010 have seen numerous surveys and opinion polls on attitudes to climate change. See for example the survey "Fewer Americans See Solid Evidence of Global Warming" (2009) by the Pew Research Centre for the People & the Press. Polls that claim a drop in "belief" in climate change seem to receive more media coverage than reports that claim a support of climate change and climate change action. Within the same time frame, there are similar numbers (if not higher) of surveys with results suggesting public concern about climate change worldwide (see for example the report by the World Bank, "Public Attitudes Toward Climate Change: Findings from a Multi-Country Poll"), but this does not become evident from the media coverage. For a source on surveys on public opinion on the environment see WorldPublicOpinion.org.

made a strong impact on public debate over climate change with the publication of his book *Heaven and Earth: Global Warming, the Missing Science*. 2009 was a crucial year for international environmental governance; December saw the UN Climate Summit in Copenhagen with the goal being to agree on a new global climate treaty to replace the Kyoto Protocol from 1997. In his book, and in his many subsequent media appearances, Plimer declared that "global warming is all a myth", and that the whole of international climate science, politics, and media has united to perform a great climate change con trick. The book sold out almost immediately, stayed on the bestseller lists for months, was taken up by politicians,<sup>2</sup> and received extensive and prolonged international media attention.

Similarly, the book received numerous reviews by scientists, particularly in Australia, showing the scientific errors and lack of quality of the argument (see for example Ashley; Enting); the author's strong links to the mining industry and polluter cash in Australia also were revealed (Burton). But the book has continued to be picked up enthusiastically by climate change deniers, and by politicians in support of non-action on climate change. Plimer and his book received considerable airing time in the media; some critical, but much of it supportive. The publication of *Heaven and Earth* put Plimer firmly into the climate change debate. Why did so many media outlets consider Plimer's views to be worthy of public attention? This article uses lan Plimer's uptake in the media in order to discuss some of the logics of the media that come to carry in the climate change debate and influence its quality.

lan Plimer has considerable cultural capital: as an award-winning scientist, his voice warrants hearing, and he and others in the climate change denial camp use this cultural capital strategically to put their message out into the public sphere through skilful use of the media. However, I will argue that the media aren't merely unwitting victims of cunning deniers who are good at PR and strategic media use, but that the very logic of the media produces rhetoric-driven public debate about climate change. This allows vested interests to control the amplification of voices and to hijack the

<sup>2</sup> The book is endorsed, for example, by the 2009 President of the European Union, Vaclav Klaus, a known climate change denier. Or to give just one other example, here is the Australian opposition leader Tony Abbot's uptake of Ian Plimer:

I think that in response to the IPCC alarmist - ah in inverted commas - view, there've been quite a lot of other reputable scientific voices. Now not everyone agrees with Ian Plimer's position but he is a highly credible scientist and he has written what seems like a very well argued book refuting most of the claims of the climate catastrophists. (Ferguson)

debate. It also hinders the comprehensive, informative, and incisive media coverage needed in covering climate change and the complexities of its politics and science.

Despite his arguments being thoroughly and convincingly dismantled in the public sphere (see for example Karoly 2009; Manne 2009; Monbiot "Spectator Recycles Climate Rubbish"), Plimer has won the attention of the public mostly by turning himself into a media celebrity, and by strategic lobbying, argument framing, and media use. He fosters an image of the maverick who upholds free debate and fights the silencing of dissent and the censoring of climate change sceptics. He does this loudly and aggressively (see particularly pp. 9–29 and 435–493). At the same time, Plimer works hard on establishing his credibility and expertise. The Australian edition of his book opens with a whole page of "About the author", not merely providing a list but a whole narrative of Plimer's accolades. These include the Eureka Prize: for the promotion of science and science broadcasting (1995), and for *A Short History of Planet Earth* (2002).<sup>3</sup>

With this claim to credibility and authority, Plimer declares that climate change is a green religion, a communist conspiracy, not based on science, and that there is no scientific consensus. Plimer throws doubts on the science of climate change, mostly by misrepresenting the operation of the IPCC ("It is unrelated to science" p. 20). He discredits environmentalism as a whole, as well as attacking individual advocates. His pet hate is Al Gore, and he uses Gore as a stand-in for the whole of environmentalism and climate science:

Gore founded his own 'green' corporation, Generation Investment Management. He is a board member of a renewable energy company. In many legal jurisdictions, if Gore made speeches about climate change and did not declare his interests, he would be committing a criminal offence. The whole gravy train gained momentum with the establishment of a single-issue group (IPCC), propaganda via Al Gore's fictional Hollywood blockbuster movie An Inconvenient Truth and Mann's infamous 'hockey stick', various partisan economic reports (e.g. Stern, Garnaut) for populist political leaders and an uncritical media looking for horror stories. (442)

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<sup>3</sup> The Eureka Prizes are for excellence in the fields of scientific research and innovation, science leadership, school science and science journalism and communication. They are funded by partnerships between the Australian Museum and sponsors and supporters ("Australian Museum Eureka Prizes").

This is just one example of Plimer's aggressive style and all-out attack. Not declaring one's interests when making speeches about climate change is an offence Plimer is guilty of himself (see later in the article). Later in the book he discredits Nicholas Stern's (2007) report on the economics of climate change:

The first page of Stern's science has basic errors of fact, exaggeration, misquotation, opinion, science created ex nihilo and fulfilment of preordained dogma. (478)

Plimer does not even attempt to provide any evidence for these claims. He is comfortable simply stating what he considers to be the facts.

His rhetorical coup, however, is to make a simple story out of climate change, an extremely complex issue. "There is no problem with global warming" (25), it's that simple. Plimer substantiates this claim by saying that:

We humans normally seek a warmer climate for our holidays. Maybe warming is good for us? (468)

He further banalises the issues by having a joke about how climate scientists "fear warmth" (461). More importantly, however, Plimer turns climate change into part of planet Earth's geological history. He in effect naturalises, or, rather, re-naturalises what is anthropogenic climate change into a natural phenomenon, so that we don't have to worry about the environmental impacts of our industries and actions. According to Plimer, the climate change of the past century was not driven by human action, but by planetary and galactic factors, as has always been the case during the history of our planet. There has been no warming since 1998, and CO2 emissions don't matter (see for example 109). Plimer's evaluation of decades of international climate science is: "If we humans, in a fit of ego, think we can change these normal planetary processes, then we need stronger medication" (11). One of the scientists who reviewed Plimer's book summarises the quality of its content and argumentation:

The arguments that Plimer advances in the 503 pages and 2311 footnotes in Heaven and Earth [sic] are nonsense. The book is largely a collection of contrarian ideas and conspiracy theories that are rife in the blogosphere. The writing is rambling and repetitive; the arguments flawed and illogical. [...] It is not 'merely' atmospheric scientists that would have to be wrong for Plimer to be right. It would require a rewriting

of biology, geology, physics, oceanography, astronomy and statistics. (Ashley)

None of Plimer's claims are new; they are familiar messages by climate change deniers. In a book on the role of science in public life, the authors point out not just the organised lobbying campaign against climate change by industries and people connected to them, but also the media savviness of climate change deniers: they are good because they have to be, and they do a full-out attack by all means available, because they know that they need to lobby and that it is about who wins the attention of the public, the media and the politicians (Mooney and Kirshenbaum 11).

Plimer loudly proclaims his credibility, but is quiet when it comes to his credentials: his real professional expertise (a geologist, not a climate scientist), and his industry and political affiliations. Plimer is closely linked to political groups working actively to stop or at least delay action on climate change. He is listed as an associate of the Institute of Public Affairs, a Melbourne-based conservative think tank (Institute of Public Affairs); an allied expert for the Natural Resources Stewardship Project in 2007, a Canadian advocacy group that opposes the Kyoto Protocol (DeSmog Blog);<sup>4</sup> and he is a member of the academic advisory council for Nigel Lawson's global warming skeptic group (Global Warming Policy Foundation).

Plimer has made a living out of the mining industry. He still is Professor of Mining Geology at the University of Adelaide, as well as currently director of three mining companies, and making a considerable income out of these directorships (Burton). Plimer also claims that his mining connections don't affect his views on climate change, and has argued that the introduction of a cap-and trade system in Australia would impact on the mining industry and "probably destroy it totally" ("lan Plimer Joins Lateline Business"). This extensive link to fossil fuel networks is not generally disclosed by the media outlets that cover Plimer's opinions.

Plimer has turned into a celebrity climate change sceptic; a rebel and a maverick, who speaks for "the average punter out there" (456). The oft-repeated statement about Plimer in the media is that he is "one of the few scientists" who disagree with anthropogenic climate change (see for example "lan Plimer Joins Lateline Business"). This characterisation of Plimer and his role in the debate, fits smoothly into the logic of the media. Plimer suits the media, and the media suit Plimer. How does this work in detail?

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<sup>4</sup> During the writing period of this article, the website of the Natural Resources Stewardship Project was not active.

#### The logic of the media and constructing the story of climate change

The mainstream media are part of the wider field of cultural production, and the production practices within the media industries are ruled by certain logics. Among the logics of global media are storytelling, networking, noise, and the spectacle. The media uptake of Plimer is a product of the conditions of media production within environmental news reporting. There is a lot of work on the many constraints of news production—posed by factors of journalistic production such as news media norms, formats, and professional practices (in turn determined by commercial pressures)—and how they influence the coverage of environmental issues (for example Anderson *Media, Culture, and Environment* and "Environmental Activism"; Boyce and Lewis; Wilson).

The daily deadlines of journalism, for example, make the coverage of scientific data over time difficult. This influences the practice of source-media relationships. Time, space, and scientific literacy pressures often lead to one-source stories, and the over-reliance on one source, usually an "expert". When it comes to who the groups and individuals are who are seen as credible and legitimate environmental news sources, the media are vulnerable to picking agents that have developed a strategy on how to gain access to the media as potential sources. The selection of sources is ideological and hierarchical, and groups with vested interests develop media strategies around that.

Media principles such as balance, which still define good practice within news production, lead to formulae of presenting two opposing points in dramatic form. This inhibits coverage of scientific complexity and skews the balance; what is in reality a tiny minority begins to look like a valid counter balance (Boykoff and Boykoff). In the case of reporting climate change, many scientists criticise the media for perpetuating indecision by including both scientific and non-scientific claims as if they were of equal validity (see for example Veron). Bjorn Lomborg (another celebrity denier, of *The Skeptical Environmentalist* fame) and Ian Plimer are just two examples of the media making use of mavericks and outsider voices, and staging a struggle between scientists where there is consensus.

lan Plimer and his particular version of climate change denial has all the makings of a good story. He makes climate change a simple story. He is David fighting the Goliath that is the IPCC. There is a huge conspiracy by elite scientists against the average person. And, ultimately, there is nothing to worry about. This simplifying set of narrative sells better than climate change considered as a dangerous risk, and requiring massive changes in our energy systems and lifestyles. Simplifying the story in this way also is a powerful strategy, used skilfully by Plimer: climate sceptic arguments are attractive, because they offer an escape route from the fact that things will have to change.

Recurring story structures (such as conflict) are a main logic in the media, and Plimer provides media fodder by drawing extensively on popular culture in *Heaven and Earth*. Conspiracy theories and echoes of Dan Brown and Michael Crichton (whose *State of Fear* similarly turns global warming into a hoax by environmental groups to protect their business, and similarly gives this story a veneer of research by bolstering it with thousands of footnotes) feature extensively in the book. With this kind of storytelling, Plimer provides his version of what Ulrich Beck has described as the staging of environmental risk (2009). Simplified stories touch "cultural nerve fibres", provide and utilise "cultural symbols" (Beck 98) and, therefore, are powerful forces within public debate and for audiences.

Another reason Plimer appeals to the media is because of the logic of the spectacle. In his media appearances and publications, Ian Plimer is sure and aggressive. With his authoritative, polemic, and polarising style, he has turned himself into a spectacle within the climate change debate. Among the main logic of the spectacle is the accumulation of spectacles (Debord). In a sense, the quality of what Plimer does and says in his media appearances and book doesn't matter, as long as he and his messages continue to be represented. Being given media space in itself already gives a certain degree of credibility, particularly for people with no specific knowledge on a particular issue. When individuals are cited with an affiliation to a well-known institution and a title, as in the case of "lan Plimer, Professor of Mining Geology at Adelaide University", there is automatic credibility. This is particularly the case when audiences are not familiar with the people involved, and when there is not usually time to look deeper into their backgrounds.

The best example of just how much the Plimer incident works within the logic of the spectacle is the Monbiot vs Plimer debate. After Plimer's claim that climate change is a hoax was recycled enthusiastically in the British magazine the *Spectator* in July 2009, George Monbiot, well-known for his environmental commentary for the *Guardian* newspaper, severely criticised both author and book for many mistakes that had already been pointed out in numerous book reviews by scientists (see for example Ashley; Lambeck). Plimer then challenged Monbiot to a public debate,

hosted by the *Spectator*, Monbiot agreed on the condition that Plimer first answers a few questions about the sources for his claims, which Plimer replied to by accusing Monbiot of scientific illiteracy. The whole incident resulted in a considerable amount of media attention (interviews, blog entries, etc.) for both Monbiot and Plimer. Eventually, Plimer pulled out and the *Spectator* cancelled the debate. Finally, the Australian Broadcasting Corporation's program *Lateline* hosted a debate between Plimer and Monbiot on 15 December 2009.

This all is an example of how the media construct debate: as a staged debate, a fight between two opposing people and opinions, a duel in which its surrounding spectacle and the fact that it is happening counts for more than the content or the quality of the debate. The Plimer vs Monbiot interaction perpetuates the logic of the spectacle.

The debate took place live on ABC's *Lateline*, presented by Tony Jones. It began with a discussion of Copenhagen and the hacked emails of the Climatic Research Unit at the University of East Anglia. Over the course of the program, almost 25 minutes, the debate turned into a squabble rather than a debate. Plimer accused Monbiot repeatedly of bad manners, and Monbiot insisted that "Plimer just will not answer the questions". Since Plimer and Monbiot finally met for this debate after a long and public communication over the points of contention, this debate potentially offered a lot of opportunity for serious discussion, especially since there was almost half an hour of air time available. However, the time was mostly wasted.

There was nothing new in the debate to qualify the situation or supplement the media exchange that had already happened. Both Plimer and Monbiot repeated their messages: Plimer that people try to silence him and that climate change is about that "governments just cannot resist the opportunity to tax us more"; Monbiot kept on insisting that Plimer answer his original questions about the sources for his claims in *Heaven and Earth*. Monbiot's repeated "Answer the question, Professor Plimer" made him look tedious. Monbiot used the debate to reiterate the point that Plimer evades questions. But anybody who followed the exchange between Plimer and Monbiot already knew that, and didn't need to have that point repeated for 30 minutes. Plimer meanwhile used the debate as a PR opportunity and kept waving a copy of his book into the camera. He also successfully diverted the debate to a discussion of the East Anglia emails and the errors found in the fourth IPCC report in November 2009, rather than a discussion of himself and the quality of his claims. This pushed both Monbiot and Jones into having to defend the science community and spend time on explaining how these incidents do not mean what Plimer claims

they mean. Both Plimer and Monbiot performed the stances they had already taken, and for the viewer there was in the end no new piece of information in the affair that would help to make a decision on who to trust and what to believe.

There would have been, for example, the opportunity to clear the question of the credibility of experts used by the media. Plimer repeatedly made the strong accusation that both Tony Jones and George Monbiot are journalists with no scientific credentials and expertise. Plimer focused on the crucial point of legitimacy, raising the question of who legitimates certain participants and discourses in the debate. This is crucial for the processes that create the credibility of participants in climate change debates. The media play a considerable role in this, and one would have thought that Jones and Monbiot, both experienced and respected journalists, would have jumped at this opportunity. But neither journalist managed to turn this into an opportunity to press Plimer on his credentials. Neither pointed out Plimer did not have any expertise or scientific credentials in the fields he is speaking out on, and purporting to be an expert in. Plimer claimed, for example, that "Climate science lacks scientific discipline" (15), and offered his *Heaven and Earth* as scientific work:

An understanding of climate requires an amalgamation of astronomy, solar physics, geology, geochronology, geochemistry, sedimentology, tectonics, palaeontology, palaeoecology, glaciology, climatology, meteorology, oceanography, ecology, archaeology and history. This is what is attempted in this book. (15)

Plimer does not have scientific training in all of these fields. Monbiot said in the debate that the role of the journalist is to keep pressing people to answer the questions they do not want to answer. But neither he nor Jones managed to ask pressing questions of Plimer that would clear for the audience who Plimer is, and how to evaluate his role in the debate.

Instead, the debate remained stuck in the formulae of conflict and duel; there is accusation and counter-accusation, petty nitpicking rather than quality arguments being made, and two people becoming increasingly agitated and angry. There were two people on two opposing sides, on stage together for their duel. At the end, it is not clear who is left standing, and who was right or wrong. It just stopped because the program ran out of time. The message of this staged debate (the episode was titled "Monbiot, Plimer cross swords") was that there are people with opposing views. This polarises the debate and helps to reinforce confusion and uncertainty.

The following day the *Guardian* published a write-up of this debate by Monbiot: "So at last we've had our fight", Monbiot begins ("Showdown With Plimer"). Monbiot claims that he won the "battle" and "showdown" with Plimer. The fact that a high-quality journalist such as George Monbiot was dragged into this logic demonstrates just how limited the media are by their own logics and conditions of production. The debate between Monbiot and Plimer showed that the reason why there is such a disproportionate level of confusing and confused climate change coverage, erring on the side of climate change denial in the face of a scientific consensus, cannot merely be attributed to the abuse of the media's responsibility as fourth estate; it also has to be explained by the logic of the mainstream media itself. The logics and conditions of production currently ruling the media produce the kind of coverage that perpetuates indecision and uncertainty, misrepresents facts, as well as under-informs on the political and historical and scientific contexts. This currently determines the quality of the public debate on climate change.

The Plimer vs Monbiot incident poses questions as to the responsibility of the media, and of the social function of journalism and news as one of the prevalent forms of mass media that communicate regarding the environment. If providing the sites and tools for a high quality debate on climate change is part of the media's role, giving a prominent voice to climate change denial as part of its construction of debate—or, rather, staging of debate—is problematic. It is particularly problematic if this kind of media coverage feeds off, rather than reports on, climate change denial, and fails to provide the historical and ideological contexts of that debate.

#### The political dynamic of the climate change debate

Since 2009, the media have been full of reports on the rise of climate change scepticism supposedly as a backlash following the 2009 UN Summit in Copenhagen, as well as the East Anglia emails in November 2009 and the criticism of the IPCC over the use of information that had not been rigorously checked.

With the circulation of this fashionable version of the climate change story, the media fail to convey that this rise in climate change denial has a history. Already in 1996, Paul Ehrlich (author of the seminal *The Population Bomb*) described efforts made to "minimise the seriousness of environmental problems" and to "fuel a backlash against 'green' policies" (Ehrlich and Ehrlich 1). Ehrlich points to the role of the media in this backlash (he called it "brownlash"):

With strong and appealing messages, they [a diverse group of individuals and organizations with differing motives and backgrounds] have successfully sowed seeds of doubt among journalists, policy makers, and the public at large about the reality and importance of such phenomena as overpopulation, global climate change, ozone depletion, and losses of biodiversity. (Ehrlich and Ehrlich 1)

The media spectacles over deniers such as Lomborg and Plimer remind us that there is a strong anti-green current. Contemporary manifestations of eco-bashing continue this tradition from at least the 1990s onwards, in which environmentalism has been constructed as a political threat, and environmentalists as the new socialists. The Rio Earth Summit in 1992 can be seen as a "watershed for international environmentalism, but also as the beginning of the conservative backlash against climate science" (Hamilton "Nature will deal with sceptics"; see also Lindahl Elliot 226).

The historical background of today's climate change debate is characterised by battles between warnings from climate scientists, and attempts by fossil-fuel companies to protect their commercial interests (Hamilton *Scorcher* 16). Conservative forces are fighting the social and cultural transformation required to deal with climate change, defending the political and economic status quo, and holding on to such ideologies as the power of technology and science, progress, or mastery over nature. Climate change denial is part of this green backlash: an orchestrated campaign financed largely by coal and oil industries, with a long and successful history. After several decades of consolidating evidence for anthropogenic climate change there still is political inaction (Baxter; Hoggan and Littlemore; Oreskes and Conway).

What is the role of the media in all of this? The media campaigns of climate change deniers have been highly successful (Hoggan and Littlemore). In the first half of this essay I have argued that this is partly because the logic of the media offers many opportunities for the strategies of climate change deniers. The two media logics whose workings are part and parcel of the history and success of climate change denial are the logic of noise and the logic of networks.

The relations between Ian Plimer and the media exemplify this. In his earlier battle with creation science, Plimer ended up in court because of his aggression in the campaign, and fellow scientists distanced themselves from Plimer (Lippard). What has been fascinating to observe in the case of Ian Plimer is how quickly

commentators leapt on Plimer and his *Heaven and Earth*, and whole-heartedly repeated its assertions. Commentators amplify voices, and as such amplifiers they play an important and potentially powerful role in public debate. In this context it needs to be noted that the people seizing on Plimer and his book were mostly media commentators who are connected to industry money and the climate denial camp. In Australia, the media figures who have reinforced lan Plimer's climate denial message were mostly the conservative Murdoch and Fairfax columnists. Their initial coverage of the book's publication provided free publicity and was promotion rather than news coverage (on the media coverage of Plimer and his book in Australia see McKewon).

Andrew Bolt (radio commentator and newspaper columnist), Christopher Pearson (*The Australian* columnist), and Miranda Devine (*Sydney Morning Herald* columnist) to name a few, all celebrated Plimer's book. Miranda Devine, for example, called the book a "comprehensive scientific refutation of the beliefs underpinning the idea of human-caused climate change". And here is Christopher Pearson's judgment of the importance of the book:

I expect that when the history of global warming as a mass delusion comes to be written, Australia's leading geologist will be recognised as a member of the international sceptical pantheon. As far as the progress of what passes for national debate is concerned, in all likelihood 2009 will be seen as the turning point and divided into the pre and post-Plimer eras.

Bolt, Pearson, and Devine are well-known right-wing commentators in Australia. In his book on climate change politics in Australia, Guy Pearse discusses the role and close connections of the media conservatives within the political scene of greenhouse policy (Pearse, particularly pp. 159–162; 247–250). Chris Mitchell, for example, editor of the *Australian* (where most of the media support for Plimer came from), seems to be immune to Rupert Murdoch's conversion to climate change. He has also won the 2008 APPEA JN Pierce Award (from the Australian Petroleum Production & Exploration Association) for Media Excellence for coverage of climate change policy. The Australian Petroleum Production & Exploration Association Ltd (APPEA) is the peak national body representing the oil and gas industry. The statement of the purpose of this award only thinly disguises APPEA's well executed PR strategy:

The J N Pierce award recognises excellence in journalism with respect to the upstream petroleum industry. [...] The selection criteria include

excellence of writing style, accuracy of research, ethics, newsworthiness, flair and creativity, and public benefit. (JN Pierce Award for Media Excellence)

In Australia, this group of media figures is one of the voices telling the public that climate change is a green religion that lacks a scientific basis, and its amplification of the climate scepticism message has been a cycle of reinforcement:

Because most are employed to write in a manner that invites debate, a black-and-white depiction is far better than a balanced account. Having decided which side of the greenhouse debate they are on, they are in the perfect position to deliver the messages of denial and delay. (Pearse 160)

Many of these media sceptics are regular speakers at conferences and fundraising events for organisations funded by the big polluters. Andrew Bolt, Christopher Pearson, Alan Jones, Miranda Devine, and Michael Duffy, for example, have all given speeches at the Institute for Public Affairs (IPA), the Centre for Independent Studies (CIS), and the Lavoisier Group (Pearse 211); all think tanks that are vociferous on climate change policy. There is a deliberate membership overlap, but the links between these media figures, groups, and interests are not mentioned. The same is the case for the small group of "experts" this group of conservative commentators relies on as sources, both locally and internationally. Among them are lan Plimer, Fred Singer, and Bjorn Lomborg; and, "virtually every source cited involves only a few degrees of separation from polluter cash" (Pearse 250).

Numerous reviewers have made the point that Plimer's book is not a work of science but, as Kurt Lambeck, president of the Australian Academy of Science, has put it, "an opinion by an author who happens to be a scientist" (Lambeck). This point, however, often is lost in the media covering Plimer's opinions. The logic of noise needs much more attention in our analysis of the media, particularly given the increasing trend in the media to give voice to commentary and political opinion.

In this context, looking at the quality of the climate change debate, as it is largely facilitated and mediated by the media, can teach us a lot about the media. There is criticism of news media generally that they are failing their social role and responsibility (as fourth estate, for example). But in the case of climate change, there is a particular case being made of the failure of the media. In the context of the political dynamic currently at work in the climate change debate—political inaction in

the face of urgency; denial in the face of evidence—the question whether news reporting of climate change might be part of the reason for the green backlash has to be considered.

Do the mediations of the debate in the media provoke confusion about climate change, about what is fact and fiction, and hence delay the search for (technological) solutions, policy development, and social and political action? Social researchers repeatedly make the point that confusion causes disengagement from politics and the political process. This seems to be about to happen in the climate change debate. Climate change is going to be the defining problem of humanity. It has the potential to endanger, if not erase, human civilization. As such it is a textbook example of the need for knowledge and information in order to know how to act politically. The media—and particularly the news media—have been traditionally seen as central to the right to know in order to participate.

The media provide one of the most prevalent interfaces between scientists, policy makers, and members of the general public. Therefore, we need media that can help us ask the obvious questions: are the climate change deniers qualified; are they doing research in the climate change field; are they accepting money from the fossil fuel industry (Hoggan and Littlemore 4)? The media need to take more seriously the processes of authorising they perform for the public. Taking a closer look at the "credibility" of the "experts" relied on by the climate change denial campaign and amplified by the media reveals that most, like Plimer, have tangential qualifications and links to polluters and polluter-funded front groups. A closer look, minus the noise of the media, also reveals that they actually are a small number of people.

We also need to think through the logics of the media in the context of making sense of science and its role in society. The public understanding of science is limited. There is an increasing "politicisation of scientific research" (Hamilton *Scorcher* 13). This is why popular science books by scientists, such as by Plimer, matter. Rather than fostering confusion about science, or perpetuating the myth that the everyday person cannot understand science, the media could help to increase science literacy. A recognition of the limitations in media expertise (the news media, for example, have to give an account of other fields of expertise, such as climate science, but can only really give an account of itself as a field), and the different logics at work (science seeks consensus; media seeks conflict), would also help to think through and re-think the role of the media in public debate over climate change.

And, finally, we need media that participate in discussions about the relationship between debate and social change. What kind of information, communication, and images can we use to shape perception and opinion and inspire action? In the context of environmental issues, such as climate change, Ulrich Beck has described the core of the relationship between media and politics: we have to rely on the symbolic politics of the media. The symbols that translate for us the many environmental risks are being produced in the battle over the meaning of these risks. The key question therefore is:

Who discovers (or invents), and how, symbols that disclose the structural character of the problems while at the same time fostering the ability to act? (Beck 98)

Caught up in the political dynamics of the debate, the media miss the purpose and the politics of the climate change debate: that the function of the debate is to prevent climate change (Beck). Part of the responsibility of the news media is to introduce new knowledge to the public. A book on the social construction of climate change asks the crucial question:

How is new knowledge introduced to the public? What roles do scientists, the media, leaders at all levels, interest groups and NGOs play in constructing knowledge for the public? (Pettenger 244)

This is part of the social role and responsibility of the media, alongside its logic of spectacle for entertainment and business purposes.

Why worry about the current quality of the climate change debate? Because undermining and misinterpreting environmental data prolongs an already difficult search for solutions (Ehrlich and Ehrlich). As is said so often now, to change our attitudes and to act in the face of climate change needs nothing short of a revolution (Lindahl Elliot 233). Plimer and his recycling of climate change denial messages and the re-recycling through the media represents conservative resistance to the transformations necessary in the face of global climate change; it merely is clinging onto the ideologies of mastery over nature and (economic) progress. Faced with the task of dealing with change, defending conservative values with no new vision will not create a public debate that can be of public benefit. A media consultant recently suggested that in the era of ecological challenges, we might need a "public-benefit journalism" (Cass), a journalism that benefits the public in the long run, not only particular groups with vested and short term interests.

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#### **Reference List**

"About APPEA." APPEA, n.d. Web. 18 April 2010.

Anderson, Alison. *Media, Culture, and the Environment*. New Brunswick: Rutgers UP, 1997. Print.

---. "Environmental Activism and News Media." *News, Public Relations and Power.* Ed. Simon Cottle. London: Sage, 2003. 117–132. Print.

Ashley, Michael. "No Science in Plimer's Primer." *The Australian* 9 May 2009. Web. 15 April 2010.

"Australian Museum Eureka Prizes." Australian Museum, n.d. Web. 19 April 2010.

Baxter, Cindy. Dealing in Doubt: The Climate Denial Industry and Climate Science: A Brief History of Attacks on Climate Science, Climate Scientists and the IPCC. Amsterdam: Greenpeace International, 2010. Report.

Beck, Ulrich. World at Risk. Cambridge: Polity, 2009. Print.

Boyce, Tammy, and Justin Lewis, eds. *Climate Change and the Media*. New York: Peter Lang, 2009. Print.

Boykoff, Maxwell T., and Jules M. Boykoff. "Balance as Bias: Global Warming and the US Prestige Press." *Global Environmental Change* 14 (2004): 125–136. Print.

Burton, Bob. "Ian Plimer's Mining Connections." *PRWatch.org.* Center for Media and Democracy. 12 Nov. 2009. Web. 18 April 2010.

Cass, Dan. "On the Slow Death of PoliticalTV: Time for Ecocene TV." *Crikey* 2 Sep. 2009. Web. 2 Sep. 2009.

Chrichton, Michael. State of Fear. New York: Avon Books, 2004. Print.

Debord, Guy. The Society of the Spectacle. New York: Zone Books, 1994. Print.

DeSmog Blog. Ian Plimer—Plimer and the NRSP. Web. 17 April 2010.

Devine, Miranda. "Planet Doomsayers Need a Cold Shower." *Sydney Morning Herald* 18 April 2009. Web. 17 April 2010.

Dickinson, Janis L. "The People Paradox: Self-esteem Striving, Immortality Ideologies, and Human Response to Climate Change." *Ecology and Society* 14.1 (2009): n. pag.Web. 9 Nov. 2009.

Dodd, Adam. "Plimer's Heaven and Earth: A Conservative Coup?." *Crikey* 20 April 2009. Web. 25 Aug. 2009.

Doherty, Peter. "Climate Change and Cultural Change: The Challenge for the Future." Melbourne *Festival of Ideas: Climate Change—Cultural Change*. Melbourne University. 15–20 June 2009. Keynote address.

Ehrlich, Paul. The Population Bomb. New York: Ballantine Books, 1971. Print.

Ehrlich, Paul, and Anne Ehrlich. *Betrayal of Science and Reason: How Anti-Environmental Rhetoric Threatens Our Future.* Washington, DC: Island Press, 1996. Print.

Enting, Ian G. "Ian Plimer's 'Heaven and Earth'—Checking the Claims." *ARC Centre for Excellence for Mathematics and Statistics of Complex Systems.* The University of Melbourne. Version 2.1 25 Jan. 2010. Web. 15 April 2010.

Ferguson, Sarah. "Malcom and the Malcontents." *Four Corners*. 9 Nov. 2009. Web. 19 April 2009.

"Global Warming Deal Unlikely This Year." Guardian Weekly 5 Feb. 2010: 6. Print.

Global Warming Policy Foundation. *Academic Advisory Council*. Web. 17 April 2010. Hamilton, Clive. "The Social Psychology of Climate Change." *National Academies Forum: Climate and Culture in Australia*. 27 Sep. 2002. Conference paper.

---. Scorcher: The Dirty Politics of Climate Change. Melbourne: Black Inc. Agenda, 2007. Print.

---. "Nature Will Deal With Sceptics." Crikey 11 May 2009. Web. 25 Aug. 2009.

Hoggan, James, and Richard Littlemore. *Climate Cover-Up: The Crusade to Deny Global Warming.* Vancouver: Greystone Books, 2009. Print.

"lan Plimer Joins Lateline Business." *Lateline Business*. ABC News. 11 Nov. 2008. Web. 10 April 2010.

Institute of Public Affairs. People and Associates—Ian Plimer. Web. 17 April 2010.

"JN Pierce Award for Media Excellence." APPEA, n.d. Web. 18 April 2010.

Karoly, David. "Heaven + Earth – Review." *Science Show*. ABC Radio National 13 June 2009. Transcript. Web. 4 September 2009.

Lambeck, Kurt. "Comments on *Heaven and Earth: Global Warming: The Missing Science.*" Ockham's Razor. ABC Radio National. 7 June 2009. Web. 4 Sept. 2009.

Lindahl Elliot, Nils. *Mediating Nature*. London: Routledge, 2006. Print.

Lippard, Jim. "How Not To Argue With Creationists." *Creation/Evolution* 11. 2 (1991): 9–21. Print.

Lateline. About. ABC. Web. 18 April 2010.

Lomborg, Bjorn. *The Skeptical Environmentalist: Measuring the Real State of the World.* Cambridge: Cambridge UP, 2001. Print.

Manne, Robert. "Cheerleading for Zealotry Not in the Public Interest." *The Australian* 25 April 2009. Web. 17 April 2010.

Marshall, George. "Denial and the Psychology of Climate Apathy." *The Ecologist* Nov. 2001: n. pag. Print.

McKewon, Elaine. "Resurrecting the War-by-Media on Climate Science: Ian Plimer's *Heaven + Earth"*. *JEA Conference* "Journalism Education in the Digital Age", Perth, Australia, 30 Nov. – 2 Dec. 2009. Web. 24 June 2010. Conference Presentation.

Monbiot, George. "Showdown With Plimer." Monbiot.com. Web. 15 April 2010.

---. "Spectator Recycles Climate Rubbish." *Guardian.co.uk.* George Monbiot's Blog. 9 July 2009. Web. 20 Aug. 2009.

Mooney, Chris and Kirshenbaum, Sheril. *Unscientific America: How Scientific Illiteracy Threatens Our Future*. New York: Basic Books, 2009. Print.

Oreskes, Naomi, and Erik Conway. *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*. Bloomsbury, 2010. Print.

Pearse, Guy. High and Dry: John Howard, Climate Change and the Selling of Australia's Future. Camberwell, Victoria: Viking, 2007. Print.

Pearson, Christopher. "Sceptic Spells Doom for Alarmists." *The Australian* 18 April 2009. Web. 17 April 2010.

Pettenger, Mary, ed. *The Social Construction of Climate Change: Power, Knowledge, Norms, Discourses.* Aldershot: Ashgate, 2007. Print.

Pew Research Center for the People and the Press. "Fewer Americans See Solid Evidence of Global Warming." *Survey Reports*. Pew Research Center. 22 Oct. 2009. Web. 17 April 2010.

Plimer, Ian. *Heaven and Earth: Global Warming, the Missing Science*. Ballan, VIC: Connor Court, 2009. Print.

"Plimer, Monbiot Cross Swords Over Climate Change." *Lateline*. Australian Broadcasting Corporation. 15 Dec. 2009. Television.

Stern, Nicholas. *The Economics of Climate Change: The Stern Review*. Cambridge: Cambridge UP, 2007. Print.

Veron, J.E.N. A Reef in Time: The Great Barrier Reef from Beginning to End. Cambridge, Mass.: Harvard UP, 2008. Print.

Wilson, Kris M. "Communicating Climate Change Through the Media: Predictions, Politics and Perceptions of Risk. *Environmental Risks and the Media*. Eds. Stuart Allan et al. New York: Routledge, 2000. 201–217. Print.

World Bank. "Public Attitudes Toward Climate Change: Findings from a Multi-Country Poll." *World Development Report 2010: Development and Climate Change*. 3 Dec. 2009. Web. 18 April 2010.

WorldPublicOpinion.org. *Environment: International Public Opinion on the Environment.* Program on International Policy Attitudes. University of Maryland. Web. 18 April 2010.