Contents

Chapter 1

Embracing Contradiction: Green Popular Culture

This opening chapter elaborates a framework for green media and popular culture under three headings: rationale; characteristics; niche. Parallel lines of 'ecology' and 'media ecology', which are not coincidental, form the basis of this study. For one of the central ways we shape our relationship to other animals, our place on Earth, and the social structures that arise from these understandings is through media and culture.

The second section identifies green media and popular culture's chief characteristic, most particularly in mainstream texts, as contradiction. By suggesting globalisation as the context for this, two further things are argued. First, that popular culture's contradictory nature is a central part of its usefulness; it provides a foreground and allows us to confront overriding contradictions framed by globalisation – most particularly, that we both romanticise and consume nature. Second, that in doing so popular culture can offer not just 'glimpses' of ecology (to borrow Andrew Hageman's phrase) but, in places, genuine and complex ecological representation. Subsequently, the closing section will propose that media and popular culture's niche is to translate ecological philosophies and principles into forms that engage the audience and make these ideas meaningful to their lives. In doing so, the final section will sketch out some of the key methods of communication and rhetoric by which popular culture makes this happen.

Green media and popular culture: a rationale

Ecology and media ecology

Green media and popular culture is governed by the complexities of ecology itself. For an ecocritic the fact that there exists, independent of green thought, a field of research called 'media ecology' is intriguing. Lance Strate, noting Neil Postman's reference to 'the study of media as environments', positions media ecology as a theory of interrelated networks of media and communication (2006: 17). Sean Cubitt argues that

> the principle attraction of ecology for a media scholar is that it is a systems-oriented mode of practice and analysis where, as in media, the communication between the elements of a system is even more important, and precedes, the elements themselves. (2005: 2)

This perception, that the link between media ecology and ecology is more than metaphorical (see Ross 1994: 172), existed from the beginning. Walter J. Ong, describing the emergence of the theory, consciously acknowledged in 1977 that media ecology invokes both a new 'ecological concern' and the Darwinian idea of 'open interaction between individuals and environment' (see Strate 2006: 15, 16–17). Similarly, for Brian L. Ott and Robert L. Mack, the purpose of media ecology

> is to study the interaction between people and their communications technology. More particularly, media ecology looks into the matter of how media of communication affect human perception, understanding, feeling, and value; and how our interaction with media facilitates or impedes our chances of survival. The word ecology suggests the study of environments: their structure, content, and impact on people in their daily lives. (2010: 62)

Over the last few years, critics have gradually responded to Andrew Ross' frequently cited statement that 'images of ecology' need to be considered in relation to the 'ecology of images' (1994: 171). Regarding this 'ecology of images' – i.e. production, text, audience etc. – the general consensus has been that textual analysis overly dominates green media and cultural studies (Maxwell and Miller 2012: 9) and, conversely, that audience research and media production have been under-emphasised. With regard to the latter, several critics agree that any assessment of the 'aesthetic possibilities for presenting an ecological agenda' (Brereton 2013: 228) ought to take into account the

'predisposition of the viewer' (Ingram 2013: 47), something which can only be properly measured through detailed ethnographical study (Brereton 2013: 228). Yet, aside from a handful of audience studies into prominent texts – *The Day After Tomorrow*, Al Gore's *An Inconvenient Truth*, the computer game *SimCity 4*, or Shanahan and McComas' work on television audiences – this hasn't been done. The difficulty, as Pat Brereton points out, is that comprehensive audience research would be a 'long-term project [that] requires commitment of resources and the assistance of a broad range of scholars over a sustained period' (2013: 228). Exceeding the scope of this particular project, the question of reception – of how, exactly, green media or popular cultural texts affect audiences, cultivate environmental awareness, or engender activism – remains largely untested (see also Bousé 2000: xiv; Ingram 2009: 83; and see Meister and Japp 2002: 2).

Producing ecology

More work has now, belatedly, been done around production. Notably, recent studies by Miller and Maxwell (2012), Bozak (2012), Kääpä (2013), and Starosielski (2015) have focused on the material ecologies of the technologies by which media or popular culture texts are produced. Such work has concentrated upon the resource impact of production, distribution and exhibition, in terms of energy use, pollution or waste, or the use and consumption of land or the negative environmental consequences of (say) film locations. Taking these in reverse, Sue Beeton has remarked that, within the film industry, 'There is no evidence of initial site selection being based on any long-term community impacts, positive or negative' (2005: 7) while Don Gayton has suggested that the substitution of one environment for another, in the selection of film locations – e.g. 'Canadian settings doubling for American ones' – encourages the treatment of place as 'a mere commodity, to be traded and substituted at will' (1998: 8). Correspondingly, Bozak has argued in *The Cinematic Footprint* that 'Embedded in every moving image is a complex set of environmental relations' (5).

The most comprehensive analysis, however, is Richard Maxwell and Toby Miller's *Greening the Media* (2012). They identify the foremost contributory factors in the negative environmental impact of media products: massive media consumption; a further acceleration in waste and pollution created by 'planned cycles' of obsolescence (e.g. in 2007 only 18% of all cell phones, televisions and computer products were recycled in the US); and toxic risk (most obviously to industry workers) from dismantled and discarded components such as hard drives,

cathode ray tubes, wiring, heavy metals etc. Their analysis also demonstrates the ongoing ecological consequences of supposedly low impact new media such as information and computing technology, consumer electronics, and digital or virtual media (see Chapter 6). Given such comprehensive analyses, I will not here be focusing, in the main, on the material ecologies of media production.

Maxwell and Miller's study was preceded, in some ways, by Jhan Hochman. His unforgettable opening to *Green Cultural Studies* (1998) is damning about the culture industries' exploitation of nature and natural resources. Cultural acts of writing, filming, and recording damage (Hochman contends) the natural world: 'Animal skin is made into vellum and parchment. Trees, standing or pulped, are carved and written upon – their cellulose flesh processed into celluloid'; while

> Mined metals and petroleum products – *raw* materials for which (eco) catastrophic wars are fought and people and nature less sensationally sacrificed on an ongoing basis – are turned into consumer goods, specifically, recording instruments such as computers, cameras, audio, and printing equipment. (1998: 1)

What this amounts to is that, 'In terms of nature, representation is a caustic enterprise' (1). Moreover, the consequences are multiplied, Hochman argues, because this 'human ob-literation' is matched by its 'representational' equivalent, resulting in a two-fold 'literation' (1):

> Even as nature is destroyed and served up as the material on which and with which culture uses to write itself, nature is also conceptually cooked in a cultural cauldron, an often toxic brew releasing scenic to horrific phantasms of represented nature. And this amalgam of cultural concepts about nature created out of nature's flesh breeds further cultural concoctions and protean chimeras [...] representation is unavoidably mis-representation, and taking, mis-taking. (1)

For Hochman, the material conditions of production translate into the form of representation. The examination of that relationship is central to green media and popular culture, something both Bozak and Maxwell and Miller acknowledge. Bozak, for instance, notes the close relationship between 'material resource' and 'image resource' (2012: 13). Maxwell and Miller advocate a 'macrosociological approach' that would encompass 'physical' production, distribution and consumption, political economy, text, regulation, subsidy, profit, as well as 'anthropological' questions such as access to cultural production, patterns of consumption and reception, and the generation of meaning (see 2012: 17–18). Accepting that no book can do all

these things, I will primarily examine the connections between production and representation. However, seeking to develop Ross' contention that 'The most useful critiques of media culture remain those that focus on the economic organization of information technologies' (1994: 175), I'll focus chiefly on the less commonly regarded extent to which the political economic (rather than material) dimensions of production impinge on the text. This, though, will be qualified in two ways, encompassing additional aspects of Maxwell and Miller's 'macrosociological approach': the possibility (in certain cases) of a more optimistic assessment of the relationship between production and text; and a modification and extension of the 'media ecologies' approach via a 'circuit of culture' model taken from cultural studies.

 Green media and cultural studies have considered the political economics (and associated ideological framings) of popular texts, primarily with regard to the more ideological media considered in Part I of this book. In news journalism, for example, there has been a great deal of research on the political, ideological and economic factors that 'frame' the production of news stories. For example, Derek Bousé points out, the economic and institutional agendas of 'a competitive, ratings-driven industry' (see 2000: xv, 1) means that in television nature programmes 'social and environmental issues' are marginalised because they 'could alienate some viewers, make it difficult to sell a film overseas, or, worst of all, prevent rerun sales by dating the film' (2000: xiv). While there's no shortage of textual analysis in this area, often that tends towards a form of critical ideological scrutiny, neglecting the type of close reading which, Brereton rightly argues, might 'unpack the richness and polysemic nature' (2005: 37) as well as the complex, contradictory relations in which texts are produced (see Gustafsson and Kääpä 2013: 6). Likewise, while green media and cultural studies have considered the relationship between political economy and text, it has tended to neglect the wider possibilities of both. For example, Hochman's connection between production and representation is valuable, but his associated paradigm of a dual 'literation'/'ob-literation' seems too one-sided. Here, then, I'll follow Ross' more balanced view. His linkage between 'images of ecology' and an 'ecology of images' is founded on the same relationship. Yet Ross suggests that any discussion of how 'image production and image consumption diminishes our capacity to sustain a healthy balance of life in the social world of our culture' ought to be balanced with a consideration of how far 'images of ecology' could 'be used to activate popular support for the repair of our local and global ecologies'

(1994: 175) (a 'repair' which might, in the circular nature of media ecologies, ultimately encompass better media production practices).

The circuit of culture

Any consideration of these possibilities should also encompass the wider circuits in which cultural production occurs. In one of the first 'green media' books, Alison Anderson suggests that 'news media needs to be situated within a complex web of culture, politics and society' (1997: 203). The 'circuit of culture' paradigm emphasises not only the meanings and values that we can draw from culture but also the practices that make it up (see du Gay et al. 1997: 3–4, 23). This model has conventionally been connected to de Certeau's conception of a politics of the 'everyday' and focused around consumption and the active audience. This has connected to ecological representation through audience theory, for instance, in work cited above on the reception of mainstream texts like *The Day After Tomorrow* or *An Inconvenient Truth*. Here, I will consider the implications of the fact that the circuit of culture model also encompasses the existence of, relatively speaking, more autonomous patterns of cultural production. Three particular elements within this can expand our sense of what green media and popular culture is and what it might achieve.

First, there is the potential of what Simon Cottle has called 'differentiated production ecology' (2004: 97) which, in this book, encompasses the extent to which new (digital or web-based) production modes and/or independent or localised media may have expanded media production and introduced more varied (e.g. ecological) perspectives. Second, is the more traditional role played by art, folk and countercultural texts. De Certeau seems slightly dismissive of what he sees as, analytically speaking, 'often privileged' countercultural groups (see 1988: xii). Yet given that many forms of popular culture can and do circulate widely, there is certainly scope for studying how the resources of an alternative popular culture might help nurture a popular environmentalism. Last, I will explore one of the key ways in which, perhaps, a grassroots environmentalist popular culture is nourishing the mainstream – namely, the complex cultural circuits by which these autonomous cultural products are, in some cases, forming interconnections with the media industries. Examples here will range across social networking, art film, independent music and 'tactical' computer games. If the discussion above signals the extent to which, in a cultural ecology, popular forms might well be engaging with, and engaging us with, ecological ideas, we can

only gain a clearer sense of what types of text might emerge by first establishing what we mean by ecology.

Environmental and ecological theory

In two books published 10 years apart David Ingram offers different definitions for green popular culture. *Green Screen* he describes as centred around films 'in which an environmentalist issue is raised explicitly and is central to the narrative' (2000: vii). In *The Jukebox in the Garden*, an ecocritical study of American popular music, this becomes 'more or less explicit representations of either ecology or the natural world' (2010: 18). In extending his focus to 'nature' generally, Ingram's competing definitions alert us to the fact that what is meant by 'green media and popular culture' is complicated not only by the complexity of 'media ecology' but also by that of 'green' theory. I have retained in my title, and throughout the book, the word 'green'. In the second (2011) edition of his book *Green Voices*, Terry Gifford regards various, competing terms – 'green poetry', 'ecological poetry' and 'ecopoetry' – as broadly synonymous but prefers 'green poetry' precisely because it presumes neither an understanding of scientific ecology nor any didactic, social purpose (2011: 8). Likewise, the nebulous quality of 'green' fits perfectly with the diversity, dialecticism and contradiction that characterises both ecology as a concept and 'media and culture'. Nevertheless, in terms of understanding just how a media or popular cultural ecology can illustrate and help determine the ecological conditions of our existence, we'll need greater precision and clarity.

Environmental and ecological texts

'Green' texts broadly fall into two categories, environmental or ecological. A great deal of debate, differentiating the two, has occurred in disciplines ranging from environmental science to political theory. The fundamental distinction, outlined by Michael Allaby, is between an emphasis on the immediate physical environment and a more systemic, paradigmatic way of thinking. When we talk about the *environmental*, we are referring either to scientifically informed studies of the actual physical habitats in which animals and humans live or, correspondingly, to changes wrought by humans on those environments and/or campaigns to protect or preserve particular areas (2000: 2). In terms of representation, environmental texts are, therefore, those that either depict or evoke, without (necessarily) any particular scientific

framework, a landscape or environment – e.g. the Hollywood film *A River Runs Through It* – or that document the threats (usually human) to those places. The scientific model, *ecology* regards all living beings, and the Earth, as systemically interconnected (Allaby 2000: 9). Species co-exist with each other, and are dependent on factors such as the atmosphere or water cycle. As an equivalent social or political model, ecology emphasises a reconstruction of society that recognises humanity's material dependence on and interconnectedness with 'nature'. It concerns itself, Allaby argues, not with 'piecemeal reform' but with a more systematic and 'radical restructuring of society and its economic base', premised on principles such as the sustainable use of energy and natural resources (2000: 9). An ecological representation might then be texts that suggest the systemic connections and interrelationships (webs or networks) that shape a given environment, or indeed the Earth as a whole. This could be anything from the 'circle of life' motif in Disney's *The Lion King* to the philosophical systems theory that (discussed below) informs the art films of Chris Welsby. In social terms, one could look at documentaries which trace and critique the patterns and ecological impact of our food and energy supply (*H2Oil*, *Gasland*, *Our Daily Bread*) or pragmatic computer games, such as *SimCity 4*, *EnerCities*, or the multiplayer *World Without Oil*, which allow the gamer to simulate running societies on an ecological basis.

In differentiating environmental from ecological, I am not making a qualitative distinction. Paula Willoquet-Maricondi has made a contrast (as we'll see in Chapter 2) between 'environmentalist' film, that uses environmentalism mainly for entertainment purposes, and an alternative, activist 'ecocinema' that can motivate and educate people. Yet she makes this distinction without ever really grounding these terms in the scientific, philosophical and socio-political meanings established through many years of 'green' theory. Certainly, given ecology's more profound systemic interconnectedness, an environmental perspective ought, at some point, to give way to the ecological. Nonetheless, 'environmental' texts – characterised by their greater sense of place, belonging, or home, and/or a more grounded awareness of the mutual interconnections of human and nonhuman – carry affective properties that might, in the context of the mainstream media industries, inform a global ecological awareness. These range from John Denver's music, for instance denoting West Virginia as 'almost heaven', to the anime director and co-founder of Studio Ghibli Hayao Miyazaki's rendering of land, water, trees, and plants from 'fragments of landscapes I had seen in Japan' (2009: 350, 352), into the enchanted woodland environment of *My Neighbour Totoro*. Yet such works can

also foster in any of us a sense of the ties that 'encompass the planet as a whole' (Heise 2008: 10). The ultimate aim of green popular culture would be to inculcate an ecological awareness and advocacy. However, as these examples imply, just as the environmental and ecological work together so, too, can mainstream and alternative cultures.

If the description above suggests ecology as a relatively coherent philosophy, this is not the case. Rather, because the complexity of ecology itself correlates to the complex media ecology described above, we can establish a paradigm – scientific, philosophical, and social – that will inform the understanding of ecology in this book. There has, in fact, been a fundamental shift in ecological science from relatively static models of biological interrelationship – notions of 'harmony', 'balance of nature' etc – to more dynamic paradigms which have come about with a shift in which biological relationship has been seen as structured by the circulation of energy (Hayward 1995: 27; Simmons 1993: 22–3). When he defined the concept of the ecosystem in 1935, the botanist Arthur Tansley posited that 'All relations amongst organisms can be described in terms of the purely material exchange of energy and of such chemical substances as water, phosphorus, nitrogen, and other nutrients' (cited Hayward 1995: 27). Now established as the dominant model in ecological science (see Phillips 2003: ch.2), this means a number of things: that scientific ecology regards nature as a network of species, interconnected in dynamic relations of energy exchange that are perpetually altering and evolving; that all creatures, including humans, are intractably embedded within ecosystems; that relations between organisms are fluid, contingent, and based upon a dialectic of competition and cooperation encapsulated in Daniel Botkin's concept of 'discordant harmonies' (see 1990); and, ultimately, that there is very little permanence or truth in nature beyond these principles. This translates into comparable philosophical and social paradigms.

Deep ecology, dark ecology, and posthumanism

Ecological philosophy encompasses a notion of deep ecology founded upon the intrinsic value of each and every entity as well as humanity's psychic or emotional attachment to the natural world (see Sessions 1995: 68; Tobias 1988: vii). However, the complex discordance of ecological science, particularly once exacerbated by our anxious perception of environmental crisis, suggests that a better model for reading green media and popular culture lies in posthumanism and, up to a point, a further development of that through what Timothy Morton calls 'dark ecology'.

Posthumanism decentres the human by placing us in relation to 'evolutionary, ecological, or technological coordinates' (Wolfe 2010: xvi). Louise Westling has identified two main 'tendencies' within posthumanism: the technological (or Cyborg), and the animal (or *animot*) (2006: 29). The first is basically the view that humans have increasingly become technological beings. Arguing, however, that this can all too easily be seen as a 'further elaboration of the Cartesian mechanistic definition of humans as transcendent minds manipulating a realm of [the] material' (29) Westling concludes that it 'does not seem to offer much to ecocriticism' (30). Conversely, *animot* posthumanism could, she suggests, help us develop a revitalised, material, ecological sense of the human. Westling divides this into two aspects: embodiment within a physical environment which can be seen as full of voices, language, and communication; and a corresponding influence from animal studies in which posthumanism emphasises, as Cary Wolfe argues, 'the embeddedness […] of the "human" in all that it is not', and that we are, in a 'profound sense constituted as human subjects within and atop a nonhuman otherness' (Wolfe 2003: 193). Posthuman philosophy retains, however, a sense of boundaries between human and nonhuman. It argues that while animals exist as a key component of humanity's ecological being, we must nevertheless respect the integrity and unique being of other species by acknowledging difference. As Hochman puts this, though we need 'to study […] how to become nature', we also need 'to pull back and grant these beings and entities unromanticized difference, an autonomy apart from humans, a kind of privacy' (1998: 16; and see Wolfe 2003: 192–3). Without that, 'nature' will 'disappear into culture'. And this would leave us either unable to recognise any realm outside of human definitions, a criticism made of films or computer games that (for example) depict clichéd environments, or, worse, allow 'culture' to 'authorize and naturalize itself as "nature"'. Anything – Disney theme parks, off-road driving, nuclear power – might, then, be legitimised as natural (see Hochman 1998: 14).

Posthumanism acknowledges nonhuman nature's integrity but also its mystery and unknowability. Such a perspective culminates, up to a point, with Morton's concept of 'dark ecology'. Morton argues that we co-exist, are en-meshed with, other forms of nature in a state of intimacy that is, nevertheless, mysterious and uncomfortable: 'the more we know about life forms, the more we recognize our connection with them […] the stranger they become' (2010a: 17). This 'strangeness' or estrangement has always been there but has been intensified by a perception of environmental crisis so that human culture, particularly

Western culture, is riven by a 'dark ecology' to which Morton attaches many feelings: hesitation; uncertainty; perceptions of the uncanny or eerie; feelings of melancholia, even depression; underlying fear or anxiety (2010a: 16–17). Morton goes on to suggest that humans need, therefore, to jettison feelings or philosophies that derive from dualistic ways of seeing 'nature' – regardless of whether these seek to dominate or idealise it – and develop new forms of relationship that concede and find ways of living with nature's strangeness and the anxiety that results (2007: 113). While reviewers have rightly pointed out that Morton is frustratingly obscure on how this might help us address an ecological crisis (see Soper 2011: 56–7), 'dark ecology' does, nevertheless, instil a sense of the urgency of the process of reflecting on our similarity and difference from nonhuman nature. This happens in popular cultural forms such as comedy, animation, computer games, or music. Ultimately, though, we also need to qualify the scepticism or pessimism of dark ecology. In that context, it's probably more useful to suggest that 'fusing and separating might be seen as alternating strategies both of which […] can be engaged' (Hochman 1998: 15). The darkness, as I argue in the chapters on music and computer games, must be balanced with some sense of the romance of living with and as earth. For romance is needed, in the deep ecological sense, to inspire ecological sentiment (see Parham 2013: 94–5).

Social ecology

We can conceptualise an equivalent, complex social ecology via Karl Marx's theory of social metabolism. Marx argued, in volume 3 of *Capital*, that a 'metabolic rift' had been created as a result of the reduction of rural labour and the populating of the cities. Shipped to the city (as food or fibre), the soil lost its nutrients and 'vitality', ending up as waste and pollution. This paradigm encapsulates, therefore, the overall networks of material 'interchange between organisms and their environment' (Foster, Clark and York 2010: 160). Yet its 'social' aspect encompasses that, for Marx, the most significant regulatory process, beyond nature itself, is the dynamic of social relations that 'metabolise' human and nonhuman natures into forms symptomatic of the society surrounding them. This has been described by Peter Dickens as 'the real or material connections between people and nature and the social relations involved in the modification of nature and of the body' (1992: 159). By emphasising the interdependence of earth, land, food, minerals, animals, humans, air, viruses, bodies, health, with society, politics, economics and culture the met-

abolic model encapsulates the impact of the current, predominantly capitalist world system on the environment, and how the environmental impacts it causes – pollution, despoliation or blight, various environmental risks and hazards – can rebound back on society. This often happens according to patterns of class or social or political power, as emphasised in recent postcolonial or environmental justice perspectives.

Here I have set out a three-fold paradigm in which ecology can be seen as: nature, as a network of species interconnected in dynamic relations of energy exchange that are forever altering and evolving; a related philosophical paradigm (posthumanism), which sees human/nonhuman as inseparable but, at the same time, alien entities; and an equivalent social ecology understood via the model of social metabolism. Certain fundamental principles do underlie the ecology of human existence. Brian Goodwin argues that, even in complexity, both 'deep pattern[s] of ordered relationships' and 'dynamical systems' simultaneously shape and emerge from the 'integrated behaviour' of different types of organism (see 1994: 98, xi–xii); Botkin himself concedes that humanity's consumption of natural resources ought to be governed by the constraints of sustainability (see Botkin and Keller 2005: 8). In that light, a valuable model remains Kate Soper's concept of an ecological 'critical realism' which balances, on the one hand, the understanding that 'there is no way of conceiving our relations to it [nature] other than through the mediation of ideas about ourselves' (1995: 13) with, on the other, a recognition that there is an 'extra-discursive reality of nature' beyond any 'cultural formation' (1995: 8).

Nevertheless, in every dimension over and above this fundamental fact, ecological relations are contingent. As I discuss in Chapter 4, Mike Hulme gives an example when he argues, in *Why We Disagree About Climate Change* (2009), that 'climate' is too complex a concept to be rationally assessed, 'solve[d]', or acted upon and that it is, therefore, primarily a matter of discourse – the value we place on natural environments and how we understand what sort of climate, or world, we want to have or are willing to tolerate. Climate change, Hulme argues, is 'a story about the meeting of Nature and Culture […] about how we are continually creating and re-creating both' (xxviii). All forms of culture, including popular forms, take a role in this. We can gain a clearer sense of how culture shapes our ecological existence via emergence theory, a concept deployed by the artist and filmmaker Chris Welsby in describing his own practice.

Emergence, media and culture

Welsby defines emergence as a belief that the self-organisation of living systems 'drives all biological life' (2011: 106). Emergence posits that organisms and species evolve within an environment that shapes them but that that environment is then re-shaped by each organism's own self-organisation and (re)emergence. As the environment evolves, each species or organism adapts; in the process, the environment itself is altered; to which each species re-adapts; and so on. Emergence has been interpreted as blurring all life forms so that, as Katherine Hayles has argued, 'Boundaries of all kinds have become permeable to the supposed other' (cited Clarke and Hansen 2009: 9). Yet, as critics within second-order cybernetics have argued, this is not the most accurate conclusion. Demurring, in effect, from Cubitt's argument that 'the communication between the elements of a system is even more important, and precedes, the elements themselves', Clarke and Hansen argue, specifically, that the human has always been 'a *for-itself* complexly imbricated with the environment' (2009: 7). Like all organisms, humans are, then, both open to the surrounding environment and closed from it (a parallel to the dialectical posthumanism suggested by Cary Wolfe). On the one hand, as a condition of our being, we leave ourselves open to biochemical metabolism, energy exchange. On the other, human life remains a discrete, self-organising system. As part of this, we evolve our own ways to make sense of and live in nature.

Welsby's subsequent description of his practice can be applied to green media and popular culture in general. In the context of this dual, dialectical emergence of organisms and environments, Welsby sees the human mind as part of the interlocking system of process and change that characterises life. 'Consciousness', he writes, 'is not separate from nature [. . .] but is instead an essential part of all biological processes' (see 2006: 26–9). Welsby gives this an ecological colouring through the systems theorists Maturana and Varela. He argues that the world, as we experience it, is the construct of cognitive processes which connect our own 'sensory map' of the world to the world itself (see 2011: 103; and see 2006: 27–8). This 'world we experience with our senses' is therefore one, as Maturana and Varela write, that we 'continually bring forth with others' (see 2011: 103). Yet, at the same time, mind, and the products of the mind – culture, technology, religion, politics etc – remain specific to humans. As Welsby says, the relationship between mind and nature 'is not an opposition between two poles. It is the constant modification of one system by another' (O'Pray and Raban 2003: 126). By such an understanding, we can regard the human mind,

and all its products (e.g. film) as both (closed) forms of self-reference, by which we understand the ecological conditions of our existence on Earth, and, potentially, parts of a process by which we might allow new conditions to emerge.

The potential drawback of this argument – certainly as it relates to the mainstream – is the assumption that media and popular culture is too implicated in the industrial, economic and consumerist practices that have created ecological problems to contribute to any emergence of better, and more ecological ways of living. Yet these predominantly technological forms are well placed to articulate and reimagine how we, technological beings, can co-exist on the Earth.

Technology

The question of technology captures both our dialectical interrelationship with the environment and other animals and the fact that every species develops its own modes for existing within and creating the conditions for its (re)emergence in the environment. Heidegger wrote that, for the Greeks, technology encapsulated a sense of wonder designed to reveal the presence of and truths about nature (1993 [1954]: 318–19), something that Welsby's films, or, for example, Miyazaki's, demonstrate. However, as humanity became disenchanted with nature – as a consequence of the successive influence of religion, science, commerce, and industry – technology became something by which we 'enframed' nature, Heidegger wrote, into something other than what it was, a 'standing reserve' (*Bestand*) for human benefit (see 1993 [1954]: 321–2; 331–3). From Heideggerian readings – or similar anti-Enlightenment perspectives – critics have suggested that the technological mediation of nature in cultural forms is what has alienated us from a proper ecological perspective on human existence (see Bate 2000: 253–6). We could apply such ideas, in a green media context, to accusations of 'false', superficial or simplistic representations (cf. computer games), of celebrations of technology's power over nature (e.g. in science fiction films), or in arguments that sublime and potentially utopian images of nature on (say) film merely celebrate the 'magic' of technology and special effects. Hochman rightly sees the danger, in arguing that 'everything, including culture and technology, is nature', of a 'veiled attempt to call upon nature to justify technology' (1998: 13). Yet Welsby's reflections point to a different understanding where technology, and its cultural forms, might help us assess, recalibrate, and articulate the conditions by which we exist in the environment. As Cubitt puts this, the boundaries between the

'three domains' of the human social world (*polis*), the 'green world' (*physis*), and *techne* – 'may not be so robust, nor the oppositions between them so entrenched, as must often seem the case' (2005: 4). Indeed, *techne* might 'mediate between the green world and the human' (2005: 4).

A green media or cultural studies can both assess that relationship and identify where and how *polis*, *techne* and *physis* co-exist. To give some examples, both Willoquet-Maricondi and Scott MacDonald have identified the Slovenian film and video maker Andrej Zdravič's beautiful, captivating *Riverglass: A River Ballet in Four Seasons* as an exemplary green text. Zdravič immerses his camera in a glass box in the River Soča. This does two things: on the one hand, the camera frames in complex and beautiful detail the life of the river; on the other, because, every so often, the lens emerges above the water line, this highlights that the human view of nature is invariably constructed through technology, that *all* human visions are constructions. Much the same practice is embodied in Welsby's films where light or wind operated cameras can enchant, express our alienation, or something in between. Correspondingly, other critics explore, for example, how the technological manipulations of animation can enable us to see and reimagine the dialectical interrelationship of animal, human, and the technological. Ursula Heise's essay 'The Android and the Animal' (2009) indicates, for instance, the ways in which animated films can highlight how each of these can be interconnected victims of political economy – for example, the corresponding degradation, in Disney-Pixar's *Wall•E*, between the eponymous robot and his friend Hal the cockroach left behind on a devastated Earth and the humans forced to live off-world in an obese and infantilised state. Conversely, Ghibli films such as *Princess Mononoke* or *Nausicaä of the Valley of the Wind* posit scenarios of future, utopian worlds where technological humans live, however dialectically, alongside animals and nature.

Technological media highlights and assesses the ecological impact of humanity's own technological being while also helping us to imagine necessary (green) adjustments in how we act out this technological nature. Consequently, green media and popular culture literally embodies the implications of both emergence theory and the relation between ecological images and human ecology – namely, what Greg Garrard has called a 'poetics of responsibility' (2012: 204). Instead of pointlessly appealing to some 'authentic' version of nature, in order to live our lives, cultural representation means assuming responsibility for how we conceive nature, for the principles and philosophies by

which we live with other life forms, for the environments we help shape. A green media and popular culture can help us understand how far humans do or do not lead ecological lives while its chief characteristics can function as a barometer for that.

Green media and popular culture: characteristics

Green media and popular culture's key characteristics emerge from its overriding context – globalisation. Hardt and Negri have helpfully conceptualised the ideological power of global capitalism, including the global media, through the concept of 'Empire'. They define 'Empire' as characterised by a lack of boundaries, as eternal, and as operating on all levels of the social world: on the one hand, 'Empire not only manages a territory and a population but also creates the very world it inhabits. It not only regulates human interactions but also seeks directly to rule over human nature' (2000: xiv–xv); on the other, it's here to stay. In that regard, globalisation's power is often framed through Francis Fukuyama's *The End of History*. Fukuyama speculates that the dominance of liberal democracy and a liberal (i.e. capitalist) economics amounts, in effect, to an 'end point in mankind's ideological evolution' (1992: xi, xii). On that basis, the idea of a green media or popular culture is problematic. Yet the 'End of History' is, as it happens, speculative and provisional. Developing a metaphor of a 'long wagon train strung out along the road' as it travels, Fukuyama ends the book by conceding that not all the 'wagons' have necessarily arrived at the same destination, nor can we know if they will (1992: 339). The 'end of history' is 'provisionally inconclusive', as the very last words of his book underline:

> Nor can we in the final analysis know, provided a majority of the wagons eventually reach the same town, whether their occupants, having looked around a bit at their new surroundings, will not find them inadequate and set their eyes on a new and more distant journey. (339)

We could define green media or cultural studies as an attempt to find out whether it might support any of these 'new and more distant' journeys towards ecological societies. For this, we need to consider globalisation and global media. We can do that by drawing on three perspectives for understanding a globally dominated popular media and culture. Discussed in what follows, these are: 'Empire'; Hardt and Negri's counterbalancing term, 'Multitude'; and 'Contradiction'.

Texts of empire

In *Environmental Communication and the Public Sphere*, Robert Cox argues that communication is fundamental to understanding, debating and addressing environmental concerns: 'the way we communicate with one another about the environment powerfully affects how we perceive both it and ourselves and, therefore, how we define our relationship with the natural world' (2013: 2). Hansen and Doyle reiterate the point: 'How environmental issues are communicated and given meaning helps shape public and political perceptions, and thus the kinds of responses or actions advocated' (2011: 6; see also Corbett 2006; Hansen 2011: 9). Central to this, many critics suggest, have been the popular mass media (see Carvalho and Burgess 2005: 1458; Hulme 2009: 218–19; Hansen and Doyle 2011: 6). However, the effectiveness and even-handedness of environmental communication is also undermined by a number of factors – the issues given precedence; power relations determining who gets to speak; the extent to which, for example, news gathering practices themselves create a message. These are all coloured by dominant social, political or ideological values.

Framing

The concept of framing encapsulates how 'Empire' seems to pervade media and cultural texts. Cox cites Pan and Kosicki's definition of 'media frames' as organising the different elements of a story into 'a coherent whole to suggest what is at issue' (2013: 152). He himself defines it as 'packaging' that 'influences readers' or viewers' sense-making and evokes certain perceptions and values' as opposed to others (2013: 16). Illustrated in Chapter 4, framing occurs as an interconnection of producers, culture and ideology. If we take each of these in turn, the discussion around production mainly centres on news frames. Invariably, these marginalise, negate or trivialise environmental issues, not least because production processes, illustrating the interconnectedness of media ecology, are themselves 'framed' ideologically through the anti-environmental priorities of global capitalism. Julia B. Corbett argues, for instance, that the framing of environmental news stories occurs because stories originate not from the independent input of journalists but, rather, from a reliance of news media on what she calls 'known sources' (2006: 238), powerful groups such as government, politicians or industry. Furthermore, news gathering practices, shaped by an economy of downscaling and cost-efficiency, similarly

work against the claims of environmentalist groups or representatives. As Anders Hansen has argued, economic pressures have prompted a shift from proactive to reactive journalism – from investigative practices to working from press releases – which has increased reliance on, and exposure for, well-resourced 'official' sources such as government representatives, the funded scientific community, or business-linked lobby groups including, as discussed in Chapter 4, the UK-based Automobile Association (see Hansen 2011: 11–12).

What exacerbates the framing of news stories by social and politically dominant groups is the fact, as several critics have argued, that an equivalent cultural framing underpins news reporting. This generates 'cultural givens' which 'facilitate and delimit the elaboration and coverage of issues' (Hansen 2010: 97). Hansen argues that cultural forms provide a 'reservoir' of narrative frames from which the operation of ideology through news stories takes its power. These 'cultural givens' are fashioned out of, and reiterated in, ideas, symbols or narratives generated by popular texts such as films or television programmes (see also Hulme 2009: 230).

At the same time, these cultural frames are, themselves, infected by the dominant ideology of global capitalism, something we'll see with television. While, as Hansen argues, ideology has been under-researched in environmental communication (2011: 10), its influence on cultural framing has been central to the cultural studies readings of, for example, Sturgeon and Willoquet-Maricondi. For the latter, visual frames – ranging from art to photography to film – have, throughout the history of Western culture and society, literally fixed ideology's place as the 'dominant reality-structuring device, determining and defining our very relationship to the world around us' (2010: 227). These ubiquitous frames have worked, she argues, to 'contain and fix' ideas such as the separation of 'nature' from the human, and human superiority:

> By 'holding' the world's living entities within its borders, the frame becomes the means and the medium through which we see and understand natural processes; the frame thus re-presents the world back to us as primarily a human artefact. (2010: 227)

Ideology infuses what are, already, barely perceptible cultural frames, and vice versa. By demonstrating this, frame analysis has been a powerful metaphor that highlights how far imperial global capitalism constrains genuine ecological communication.

Nevertheless, the metaphor of framing – which itself fixes things in place – is, I believe, too static. It doesn't do justice to the fluidity that

characterises human ecology, 'media ecology', or popular culture, all of which, as I will demonstrate throughout this book, habitually resist framing. Accordingly, after identifying that the chief characteristic of green media and popular culture is 'contradiction', I will then consider two ways in which a green popular culture surfaces from the productive tensions between 'Empire' and what Hardt and Negri call the 'Multitude': the complex interplay between global and local, or national, cultures; and that between global mass media and folk cultures, subcultures, or countercultures.

Contradiction

It soon becomes obvious that both the media/cultural industries and individual texts are contradictory in relation to ecological ideas. Alison Anderson points out that 'the media are not monolithic' but 'form a complexly differentiated system' (1997: 203). Consequently, one aspect of contradiction concerns the strategies by which green groups have intervened in the mainstream media industries. This emphasis is particularly prominent in communication studies and green journalism. Studies include Hansen's analysis of how Greenpeace has built knowledge of which news sources to target (national or local, television or print), how and when to manage information flows (e.g. when a story is most likely to be published or broadcast), and the most effective ways to present an argument. These range from the use of hard, statistical, easily comprehensible data to the staging of 'image events', visually spectacular protests and publicity stunts (1993: 161–75). Kevin Michael DeLuca (1999) has developed this last point further. He argues that image events circumvent ideologically framed television news discourse by playing to another media imperative: the need to entertain in order to generate audiences, advertising and profit.

Andrew Hageman's suggestion that the products of the film industry are characterised by 'contradiction' (or differentiation) captures best how there may be partial resistance to ideological framing in media or popular cultural texts. Hageman argues, on the one hand, that environmental messages in mainstream cinema are constituted by ('bathed' in) the ideology of capitalism. 'If we ignore this enframing, we seal our doom when we imagine that we have already achieved ecological consciousness and can disseminate it through film for social programming' (2013: 64–5). For example, we may feel inspired by the 'nature' screened in tourism and television nature programmes. Yet, as Catriona Sandilands argues, these idealisations also screen 'the exploitation of the natural world that is a central condition of capitalist production' by 'proclaiming the continued possibility of a nature

outside commodity relations' (2011: 36–7). On the other hand, because ideology never stands still, and is itself negotiable, Hageman argues that even films made by the film industry are riddled with contradictions where 'we may glimpse and […] imagine an ecology without capital' (2013: 65–6). These are significant because they parallel similar contradictions in how we live our lives.

In *Flight Maps: Adventures with Nature in Modern America*, Jennifer Price argues that people in the West are torn between two contradictory desires: to retain the aspiration of 'Nature as a Place Apart' and 'ecological sustainability'; and to maintain our 'rampant materialism' (1999: 242–3). So while, as Meister and Japp and Sturgeon argue, this contradiction bedevils 'environmentalist' media and popular culture, it is also the reason why it's worth studying. Brereton points out that, for critics such as John Fiske, popular culture is popular precisely because texts contain 'unresolved contradictions' which mirror those in the audience's own identities and social relations (Brereton 2005: 36); likewise, for Gina Marchetti, such texts 'somehow embody and work through those social contradictions which the culture needs to come to grips with' (1989: 187; Brereton 2005: 35). Because, that is, green media and popular culture embodies contradictions in society, it allows us to examine how the 'glimpses' of which Hageman speaks can both inhibit and enable ecological awareness.

These glimpses take various forms. They might literally be moments of ecological clarity in otherwise deeply compromised texts as when the respective aural and visual excesses of the vocal performance and video of 'Earth Song' arguably provide us with visions of both the ecological sublime and its dystopian equivalent. In such instances, as Adrian Ivakhiv argues about film, popular culture creates worlds other than but discernibly connected to our own everyday, 'real' world (2011: 187). Correspondingly, the ways in which the varying dimensions of a capitalist media, sometimes imbued with liberal values, facilitate environmental values, likewise illustrates this state of contradiction (Brereton 2005: 13). One can see this in the industry sanctioned Environmental Media Association initiatives to 'green' American television and Hollywood film plotlines and characters or in the for-profit website Ecorazzi running a feature on Natalie Portman's diet choices and the implications of going vegan. Or, we might consider how these differentiated dimensions of the media industry open up spaces for ecological representation. Examples might include Walt Disney's US distribution of Studio Ghibli's *My Neighbour Totoro* or Sony's publishing of the green computer game *Journey* on its PlayStation platform.

In perpetually offering glimpses of ecology, media and popular culture is a vital resource for the emergence, translation, nourishing, even realisation of ecological ideas. Indeed, my analysis will go further in suggesting that there are plenty of texts which offer not only glimpses but, as Price goes on to argue, encourage us to integrate the nonhuman world into our everyday existence (1999: 255). Ivakhiv seems to conclude that, because heterotopic glimpses in mainstream film are rare, they'll most likely come from an independent cinema 'catalysed' by 'social and cultural movements' (186). I'll therefore begin my discussion of the 'multitude' by considering alternative popular culture's role in generating prolonged and authentic opportunities for green themes to emerge.

Texts of the multitude

Beyond the texts produced by the media and cultural industries lie 'alternative' or 'activist' media. These form part of what Hardt and Negri call the 'multitude'. Defined as the 'creative subjectivities of globalization' (2000: 60), they argue that groups within the multitude can both act 'against Empire' (61) and be a creative force within it. Several critics, including Habermas himself, have noted that the commodification and top-down communication (2001: 105–6) of the mainstream media compromises the notion of a public sphere governed by principles of free, open, and rational debate (2001: 103). They, also, have taken hope in the existence of elements acting 'against Empire'. John D.H. Downing, for instance, has argued that an 'alternative' or 'counter' realm operating, as he neatly puts it, 'in the capillaries of society' (1988: 168) has increasingly supplemented or circumvented the single and ideologically-framed public sphere. Writing in 1988 about the anti-nuclear movement, Downing suggests that examples like this operate through complementary democratic, self-managed, nonhierarchical forms of media practice (168–9). Amongst these, he cites alternative media forms which, at the time, included radio and photocopiers but which might also, Downing presciently suggests, encompass 'other electronic media' (165). Subsequently, several green media critics have argued that, with print and broadcast media prohibitively expensive, cheaper forms of internet media – especially since the advent of Web 2.0 – might reactivate green media and cultural production (see Hulme 2009: 245; Hansen 2010: 58–68; Cox 2013: ch7). In Chapter 4, my discussion of the emergence of green websites highlights the 'existence and productivity' of, as Downing calls it, the 'production of alternative cultures from within the ranks

of the general public' (1988: 169). Ultimately, however, I'll reach the conclusion that, rather than establishing a sphere hermetically sealed from mainstream popular culture, this alternative/activist media forges valuable lines of connection to it.

Suggested by the work of George McKay and Leah Lievrouw, two interlinked ideas help us to understand the nature of this relationship whereby media and popular culture can influence the development of a wider ecological awareness. McKay has argued, first, that punk's practice of self-produced culture (fanzines, independent record labels, self-promoted gigs etc) filtered into the direct action techniques of a subsequent, broader, politicised 'DiY culture' that included environmental groups such as Reclaim the Streets and The Land is Ours (1998: 25). Second, he suggests in *Senseless Acts of Beauty: Cultures of Resistance Since the Sixties* that subcultures feed the 'counterculture' because the latter needs to define its own space – away from the mainstream – and does this through music, fashion, drug practices etc (1996: 6). We can apply both ideas to (environmental) media practice and activism through Lievrouw's analysis in *Alternative and Activist New Media.*

She suggests that internet media, 'DiY' by nature, offers a means of production back to countercultural (including environmental) groups. She also argues that the new media activism which emerges is underpinned by a fluency in popular culture and its modes of expression. While, then, new media activism has been critical for bolstering the identity, visibility and solidarity of countercultural groups, this popular cultural fluency also enables alternative ideas to filter towards the mainstream. To illustrate this, I'll be ending Chapter 4 by considering two alternative examples. One is the British website 'Undercurrents' where both mainstream popular culture and countercultural content shapes the site into a resource not just of alternative news and views on the environment but, increasingly, for building a green lifestyle. Conversely, Ecorazzi utilises (only in part-parody) a major mainstream popular cultural form, the mix of bitchiness and deference that characterises the celebrity gossip magazine. By deploying this form to monitor celebrities' adherence to green living, Ecorazzi, I'll suggest, draws on the modes of expression of radical green culture in order to bring something of its values to a mass audience.

There is a book to be written on independent or radical green popular culture. However, I'll be arguing that the value of green media and popular culture in cultivating ecological awareness rests not so much in the closure of independent or underground popular culture but in its openness to and interaction with mainstream media, cultural industries

and mass audiences. What I am primarily interested in exploring is Hardt and Negri's other angle on the multitude – the creative forces within Empire: where and to what purpose autonomous cultural production seeps into the mainstream, a necessity if one wants environmentalism to gain popular, mass appeal. Of course, because of this interaction of counterculture with the mainstream the multitude is always riddled with contradiction. Accordingly, it's worth exploring two main cultural ecosystems from which a green popular culture (albeit contradictory) emerges: the dialogue between national or localised 'folk cultures' and a global media culture; and the complex circuits by which activist media and popular culture finds its way into the mainstream.

Multitude: eco-cosmopolitan cultures

The contradictions of green popular culture stem partly from the global media being, itself, multifaceted. One of those facets is its relationship with local or national cultures, including those with a strong sense of place. Global media, Morley and Robins argue, is 'a space of flows, an electronic space, a decentred space' where, with the local placed into dialogue with the global, 'frontiers and boundaries have become permeable' so that 'economies and cultures are thrown into intense and immediate contact with […] each "Other" (an "Other" that is no longer simply "out there", but also within)' (1995: 115). While the local can remain overshadowed in this dialogue, it does mean that not just 'glimpses' but extended revelations of local cultures may emerge into the global limelight.

A convergence of what has been called 'glocalisation from below' (Morley 2006: 39) with Heise's 'eco-cosmopolitanism' can give this an ecological dimension. The first refers to the ways in which local media producers 'tamper', in the words of Ulf Hannerz, with global forms such as Hollywood cinema. This creates texts 'responsive to, and […] in part outgrowths of, local everyday life' (Hannerz 1991: 124; and see Morley 2006: 40). Because they remain founded upon a relation to global popular culture, these sometimes reach a global market, as with examples considered in this book: Irish popular music, Japanese anime, Australian film. Eco-cosmopolitanism begins, correspondingly, with the belief that ecology's global nature requires, in cultural terms, a global (ecological) 'imagined community'. Heise emphasises this partly in opposition to a more conventionalised (i.e. environmental) emphasis on staying, belonging, or returning to place. Nevertheless, her model is founded on the same interplay of global homogeneity and heterogeneous indigenous and national cultures as we find in

'glocalisation from below'. Here, cultural forms generated in specific places can find wider (regional or international) audiences. They can convert a place-based sense of human 'ties to territories and systems', 'advocacy on behalf of the nonhuman world', or a locally-forged awareness of 'socioenvironmental justice' into sensibilities that just might 'encompass the planet as a whole' (2008: 10).

She goes on to suggest that any study of eco-cosmopolitanism would involve an attempt 'to find effective aesthetic templates' (210). These Heise identifies as parallel to the shift (described above) towards a fluid, discordant ecology. Specifically, because eco-cosmopolitan art is premised on a network of relations and influences that flow backwards and forwards between local, regional or national cultures and global awareness, it breaks up the conventional, static, iconic images of global ecology – e.g. the NASA 'Earthrise' image – with techniques drawn, Heise argues, from 'collage or montage' (10). For that reason, she places quite a lot of emphasis on 'experimental' or 'innovative' cultural forms – literary novels, avantgarde music, installation art (10–11). Mainstream media and popular culture has plenty of examples of static global imagery e.g. the BBC programmes *The Blue Planet* or *Human Planet* (10–11). Yet from Heise's own interest in popular culture, seen in discussions in *Sense of Place and Sense of Planet* about Google Earth and green computer games (11, 62), and her other work, we can see that a popular, media eco-cosmopolitanism is possible.

In fact, one can easily find applicable examples of collage or montage in popular culture. In *Whisper of the Heart*, for instance, Miyazaki deploys John Denver's 'Take Me Home, Country Roads' as a touchstone for an environmental sense of belonging in place, transplanting West Virginia to Tokyo and urban environmental sentiment. Likewise, on *The Joshua Tree* (1987), U2 blend Irish folk, folk-rock, and Americana with the globally familiar conventions of stadium rock to concoct (as described in Chapter 6) an album which brings loosely social-ecological themes to an international audience. Yet though we can dwell on particular instances of collage, what I'm suggesting here is that the global ecology of popular culture is, itself, a collage or montage; and that out of this – amongst many, many other things – an equivalent global, eco-cosmopolitan ecology emerges.

Often occurring from what Morley calls, critiquing 'cultural imperialism' and Americanisation, the 'counter-flow' of national (or local) brands (2006: 35), global green popular culture is, as Cubitt insists, every bit as complex and influential as scientific papers, policy

initiatives, or indeed, as Heise puts it, 'factual information' (2008: 63). Indeed, the intertwining of localised cultural perspectives with globalised, imperial forms can create texts that embody the complexities of (say) the metabolic relations between animals, land, place, and global economic structures. Susan Ward and Rebecca Coyle have argued, for instance, that while many Australian films remain identifiably Australian, they are often globally funded, aimed at an international audience, with internationally recognisable genres and stars. Consequently, while such 'projects harness corporate practice, methodologies and technologies honed by commercial interests', informed by place they also teach 'ethical values and environmental activism'. So, Ward and Coyle conclude, it is possible for global media to 'engage with the issues of climate change, offering practical solutions and the sense of a global moral community collectively working towards an alternative future' (2014: 203).

Such arguments rebalance the depressing picture of an all-powerful media that is hostile to or marginalises ecological perspectives. Yet, as Kääpä and Gustafsson have implied, in relation to transnational perspectives, we shouldn't be overly optimistic (2014: 4). Transnationalism is a particularly useful model. Stressing not just the interconnections of content, but also of funding, production processes, and distribution, transnationalism captures what is, of course, the tension between global media forms and local, countercultural, eco-cosmopolitan alternatives. Indeed, it is that tension which engenders complex, contradictory ecological texts (Kääpä and Gustafsson 2014: 4–5). Illustrated throughout this book (e.g. in discussions of anime, popular music, computer games), green film demonstrates particularly well how the complexity of 'media ecology' parallels the complexities of 'ecology' itself. In Chapter 2, I offer Baz Luhrmann's *Australia* as an example of where, arguably, the mechanisms and priorities of the global film industry flatten the ecologically specific attributes of localised places. However, a contrasting example, *The Hunter*, illustrates Ward and Coyle's argument. The plot concerns a mercenary hired by a shadowy biotechnology company to track down, kill, and harvest the DNA of the last surviving thylacine (Tasmanian tiger). In doing so, the film utilises, on the one hand, the specifics of both a Tasmanian sense of place and Australian Gothic cinema – hostile, wild mysterious animals; dark, impenetrable jungle; similarly hostile locals; and an antipathy to environmentalists that derives from the desire to protect jobs in the logging industry. Nevertheless, *The Hunter* also offers a globally instructive model. This articulates the complexity of 'posthuman being', the state of dual affinity-estrangement from other creatures,

and the complex economics and often hidden social ecologies in which many of the global film audience will live.

Multitude: the complex circuits of popular eco-cultures

A second avenue for green popular culture's emergence is a corresponding interaction between countercultural forms and mass culture or the mainstream. Given that sometimes these draw directly from the place-based, ecological perspectives of 'folk' forms, this requires an understanding of (popular) cultural ecologies somewhat more complex than those with which I began this book.

Relevant to a polarisation between organic folk culture and what some environmentalist critics see as the commodified forms of contemporary popular culture, Raymond Rogers has argued that there has always been a 'residual history of modernity', where values loosely associated with the past stay behind to nourish social critique and alternative visions (1994: 21; 99–100). Laurence Coupe, likewise, suggests that myths such as the organic community 'endure so long as they perform helpful work', for instance by offering ecologically necessary visions of some 'other, deeper concept of life' and/or by resisting the logic of industrial capitalism (2000b: 15). Coupe has applied such perspectives to music, as when he discusses Van Morrison (see 2007). A more productive model, however, seems to me to be suggested in Rob Young's *Electric Eden: Unearthing Britain's Visionary Music*. A history of British folk music, Young does value the fact that folk embodies traditions of place, critiques of modernity, and a broadly ecological vision. Yet, he argues, in an analysis actually focused around folk-rock, the folk vision would have stagnated if it hadn't continually adapted, notably with electrification and folk-rock's emergence in the 1960s (see Young 2011: 5–10). Consequently, rather than celebrating what might have been a dying tradition, Young traces a line of transition in which folk's forms and sensibilities entered into dialogue with the rock counterculture and, from there, the pop-rock mainstream. The suggestion here – that an intertwining of folk and countercultural forms might translate alternative perspectives towards a mainstream audience – is very much a key basis for the emergence of green popular culture. My discussion of this will pivot, as implied, on the music chapter. Here, noting parallel processes in Iceland and Ireland to those Young describes, I'll argue that Björk's simultaneous immersion in Icelandic landscape and punk and new technology and U2's in both Irish and American folk are key examples that demonstrate one of the ways in which green themes can enter global pop culture.

Yet I'll also be showing that similar possibilities arise from other, equivalent conjunctions in media or popular culture. One example is when interaction between independent media producers, sometimes connected with grassroots movements such as environmentalism, and the global media industries helps popularise ecological ideas. In *Games of Empire: Global Capitalism and Video Games*, Dyer-Witheford and de Peuter suggest that, while deeply infected by networked capitalist power, computer games also harbour the possibility of sporadic 'upsurges' (see 2009: xxi). Examples include *tactical games*, 'designed by activists to disseminate radical social critique' and what they call *dissonant development* (the existence of critical content in mainstream games) (2009: 191). Tristan Donovan, in a history of video games, describes how, following domination by the major games companies and publishers in the 2000s, the independent game movement began again to flourish. This happened for two reasons: the advent of consoles (Xbox, PS3 etc), in which broadband connections facilitated easier online distribution (2010: 365), and because new autonomous games companies began to work with major media organisations. An example is thatgamecompany, who, Alenda Y. Chang has noted, have made a number of environmentally-themed games for PS3 (2011: 72).

Further possibilities for popularising green ideas emerge from the new media ecology of convergence. Convergence, in many ways, is supposed to optimise the potential of globalisation. It is the need for large media organisations to work across different platforms so as to sustain or generate increased profits that motivates the intersection or merging of previously separate, self-contained media or information systems (see Dwyer 2010: 2–3, 27). Nevertheless, these complex convergences of 'communication systems', and also 'cultural forms' (see Dwyer 2010: 27; Hesmondhalgh 2007: 262), do at times generate correspondingly complex 'images of ecology'. Convergence, for example, enabled Björk's *Biophilia* project where the awareness to be gained from the (dark) ecological dimensions of the music is supplemented by scientific education in apps released with the album.

In many ways, then, the alternative perspectives of folk cultures, subcultures, and the counterculture can modify the ideological and anti-ecological frames of a global capitalist media. Yet in correspondence with Kääpä and Gustafsson's caveats about transnationalism we must also remember that the media industries continually appropriate, assimilate, or negate such cultures. As Hardt and Negri put this, in the 'Empire' of global capitalism 'Every difference is an opportunity' (2000: 152). Examples include: the superficial treatment (thematically

at least) of social and environmental injustice in representations of the Amazonian rainforest and the 1992–5 war in Bosnia in Jackson's 'Earth Song' video; or *SimCity 4*'s limitation of sustainable development into capitalist narratives of technological and economic progress. A central analysis in this book will, then, be to investigate how the complex connectivities associated with global mass media diminish ecological messages as well as where genuinely ecological perspectives emerge. So, for all the positive examples, we'll also explore the ways in which global media erase the specificities of local cultures and places, as in *Australia*, or, for example, in the nature documentary series *Human Planet* which coerces various natural and social ecologies into a narrative of human dominance over the rest of the planet and justification for capitalist ideology. Likewise, green countercultural messages get flattened by mass culture. Examples here will include the film *The Day After Tomorrow* and the stereotypical portrayal of environmentalists in television comedy.

What this tells us is that today's media and cultural ecology is far too complex to allow us to explain green popular culture away either as 'greenwashing' or through a naïve utopianism. Rather, the fluid networks of connection described in this section leave us plenty of scope by which to perceive two things: that complex representations of ecology do emerge, even in global media; but also that green media and popular culture's value lies, ultimately, in highlighting how films, music, games etc articulate the contradictions, compromises and possibilities that inform environmentalism's efforts at raising awareness. I'll end with an examination of the aesthetic forms of green popular culture and by considering which approaches seem most effective in helping to promote a popular, global ecological awareness.

Green media and popular culture: a niche

One of green popular culture's key aspirations is to facilitate environmental communication, helping to make the public aware of issues, from the conservation of animals and wild nature to questions of environmental injustice or global climate change. Yet it is also involved in the establishment and advocacy of ecological beliefs. A 'green popular culture' could, for example, actively elicit sympathy for the preservation of endangered species (as with the BBC's nature programme *Springwatch*), engage in critiques of, say, the social and ecological consequences of consumer society (e.g. *Waste Land*) or, even, advocate

particular ideas, whether it's giving up cars or the sustainable society. At whatever level of engagement, transmitting ecological ideas in forms palatable to the audience is the particular niche, however, that green media and popular culture occupies. If, though, the interests of environmentalism as a popular movement means being able to 'swim with, not against, the current of changing social values', this must also mean adopting forms of rhetoric adaptable, flexible and open enough to engage with contemporary society.

Rhetoric

A fundamental model in terms of positioning green media and popular culture as rhetoric is Robert Cox's distinction between pragmatic modes – that educate, alert, mobilise, and persuade others – and constitutive modes where 'language and other forms of symbolic action' help shape values and our perceptions of both 'nature and environmental problems' (2013: 19). This book will offer plentiful examples of each of these. Pragmatic forms will include the educational aspects of Disney films or television nature documentaries; news journalism; forms of social media that mobilise global environmental protest; popular protest songs; and computer games that simulate ecological societies. Conversely, constitutive forms discussed in this book highlight the myriad ways in which media and popular culture can work, at an *affective* level, to engender or elicit an environmentalist sense of place, better relations with other species, social-ecological critique, or to imagine better, ecologically sustainable worlds.

My primary (but not exclusive) emphasis will be on the constitutive mode and how its affective properties can help cultivate awareness, (re)shape perceptions and, ultimately, values. There are two principal reasons for this. The first relates to the fact, as the philosopher and literary theorist Kenneth Burke once pointed out, that the 'wearisome' and 'unrelieved accumulation' of data that environmental activism often necessitates can inculcate a 'mighty boredom' (see 2000: 97). For a similar reason, Peter Timmerman argues, in his essay 'The Environmentalist as Dark Comedian', that environmentalism needs to cultivate what he calls a 'dancing ground of being', on which we might counter 'the seeming futility of many of our efforts' by singing, dancing, and laughing, by *celebrating* life and nature (1989: 27). Consequently, Burke suggests, satirising the excesses of the technological society would be preferable, and perhaps more profitable, than more pragmatic forms of activism. Secondly, while even activists can find environmental discourse unpalatable, by the same token popular

culture will never communicate environmental issues or formulate 'remedies' to the same level as scientific research, policy papers, philosophical writing, or political manifestos. Therefore its USP must surely be to support the necessary work of ecological science, philosophy, politics etc by translating these more pragmatic modes in ways that can engage people. This might occur in any number of ways:

- First, quite simply, the ability to inspire, re-enchant or invoke feelings towards nature that forego the need for direct persuasion (something audiences might resist).
- The capacity of affective forms to short-circuit the 'rational', but ideologically informed discourse, that frames everything from news stories to the linear narratives of Hollywood film. This can work, for example, by invoking shock or laughter (as DeLuca describes image events); or by stark images which go beyond words, such as the racks of meat which, in the documentary *Our Daily Bread*, graphically convey the realities of agribusiness; or by more figurative forms of representation designed, for example, to show otherwise imperceptible metabolic patterns. An example here would be the balletic movements of cranes and oil rigs which, in Emily Richardson's film *Petrolia*, convey the equally distorted realities governing the global oil industry.
- One could, alternatively, cite Bruno Latour's paradigm of translation, as a way that scientific ideas pass into society, to highlight how ecological principles could be conveyed through cultural narratives. According to Latour, individuals and agencies re-shape scientific concepts in accordance with their own beliefs or interests, the ideas becoming transformed as they pass into and through the social world (see 1987: 132–44). While this can mean popular genres distorting science, it also highlights the important role that narrative can play in translating complex questions of the political economics of energy supply or the social-ecological costs of our reliance on oil to a popular audience. This is discussed in Chapter 3 in an analysis of the Canadian-UK (eco)thriller *Burn Up*.
- We will also find plenty of examples of texts that are both constitutive and pragmatic. Welsby's films, alternately beautiful and dark, carry a clear but sophisticated sense of systems ecology; John Cooper Clarke's punk poetry, not least when set to music, offers 'toxic' and surreal soundscapes of the inner-city coupled with, in his poetry, discernible narratives of social injustice experienced in terms of environmental blight (see Parham 2015); more generally, the idea that a fusion of the pragmatic and constitutive offers

particularly rich examples of ecological representation appears both in Cubitt's description of the BBC's *The Blue Planet* as a programme that 'begins in delight and ends in wisdom' (2005: 50) and David Whitley's argument that certain Disney films 'allow audiences to think as well as feel' (2012: 16).

- Last, it will be argued, the aesthetic-rhetorical complexity of certain texts, sometimes encompassing just this conjunction of pragmatic/rationalist with affective/symbolic modes, can serve as a basis for the more complex representations of ecology in popular culture. The interplay between the dark posthuman standpoint of Werner Herzog's documentary *Grizzly Man* and the inspirational, if misguided romanticism of its subject, Timothy Treadwell, demonstrates this; as does a relentless exposé of environmental injustice in *Waste Land*, an exposé that sits alongside the film's vision of a sustainable, equitable society.

Ultimately, while conclusions about the effectiveness of any of these affective modes remain conditional, in lieu of audience theory, what will be evidenced is that green media and popular culture possesses the rhetorical and aesthetic range necessary to address varied audiences in varied circumstances. To indicate just how it might occupy its niche of translating ecological ideas into popular awareness, I'll end by identifying three common qualities.

Elasticity

One of the outcomes of a vigorous debate in *Environmental Communication: A Journal of Nature and Culture*, that was engendered by Steven Schwarze's defence of melodrama, has been an argument that the principle of *Kairos*, the Greek idea of the right and opportune moment, should inform critical judgement and rhetorical practice (see Schwarze 2006: 257; Bsumek 2008). Suggesting that no one form of rhetoric is necessarily superior to any other, what motivates this argument is the perception that environmental rhetoric must remain flexible and adaptable to circumstances and audiences.

As highlighted, one of the defining features of popular culture is the variety and flexibility of its constitutive modes. Within this book, I will identify numerous forms: visual spectacle; narrative; performance; soundscaping; humour and comedy; avant-garde aesthetics; the 'plasmatic' qualities by which animation effects transformation; sentimentalism; immersion; play. These, in turn, co-exist with the various niches that each of the popular cultural forms considered in this

book occupies in relation to cultivating ecological principles – whether a sense of place (film, music, anime); our relationship with other animals (television nature programmes, comedy); awareness of climate change (news reporting); capacity for social-environmental decision making (TV drama; computer games); or facilitating environmental activism (new internet media; music). Such flexibility means that each of these media forms can address different audiences, whether adults (news, television drama, documentary); young people (media activism, comedy, music); or children (animation, educative computer games). In other words, media and popular culture's variety leaves it exceptionally well placed to address the full range of green issues and audiences.

Yet for environmentalism to connect with wider society it must also keep adapting its modes into forms that will speak to contemporary audiences. Laurence Grossberg has suggested that for cultural studies to retain its critical intervention in the world, it has to work within 'the formations of the popular' rather than prescribe 'a set of texts' (1994: 18). Likewise, Brereton implies that any ecological analysis of media and popular culture will dissolve into stasis unless we consider texts which, as can be observed in their popularity, give audiences pleasure (2005: 36–8; and see Ingram 2013: 48–50; 58–9). While these are good precepts for a green media and cultural studies, much the same applies to environmentalism itself. How this translates into a methodology for green popular culture is considered in Chapter 5 through the notion of *elasticity*.

In his classic essay 'Laughter: An Essay on the Meaning of the Comic', Henri Bergson makes two key points: that humour has a disciplinary function – holding over 'deviant' groups the threat of ridicule, humiliation or ostracism; and that the most intrinsically comic trait is rigidity, 'automatism', 'inelasticity', in a person or social group. The perceived 'rigidity' of environmental groups has become a target for stereotyping and marginalisation, as illustrated by the mock interviews that Sacha Baron Cohen's comic character 'Ali G' performs with environmental activists. In the comedy chapter, however, I also consider contrary examples of how an elastic engagement with popular culture can put environmental perspectives into the popular domain. This looks, notably, at how Marcus Brigstocke subverts the aggressively satirical mode of a contemporary comedy conscripted by 'cool capitalism' to critique instead the 'rigidity' of people's resistance to climate science and our inability, or unwillingness, to alter our lifestyles. The suggestion here is that green rhetoric can draw communicative energy from popular culture and, to continue the metaphor,

stretch that culture into new shapes. We find comparable examples of elasticity in Ecorazzi, in Björk's deployment of drum 'n' bass to articulate the dark ecology of her Icelandic sense of place, and in Studio Ghibli's use/misuse of the narrative traditions of Western animation to construct complex, communicable, and transformative representations of ecological being.

Everyday ecology

Ultimately, the purpose behind these multi-dimensional, elastic modes of green popular culture is to connect ecological principles to a mainstream audience. Nevertheless, one of the key arguments to have emerged from green media and cultural studies is that green rhetoric often fails to persuade in this way. There are a number of reasons for this: environmentalist messages can induce boredom, didacticism, or preaching; modes such as apocalypticism, tragedy, the 'Jeremiad', merely alienate people, or engender pessimism, despair, impassivity, resignation, or feelings of powerlessness (see Crespo and Pereira 2014: 173; 175–6); exceptional 'hero' figures like Al Gore (*An Inconvenient Truth*) or the fictionalised Jack Hall in *The Day After Tomorrow* encourage us in the belief that we can rely on others; while newspaper coverage that frames environmental problems through iconic images of polar bears and Arctic collapse suggests that green issues are 'distant' issues, irrelevant to us and only able to be addressed at a global political level (Doyle 2011: 145–6). As Julie Doyle puts this, while pictures of polar bears in the Arctic 'certainly captured people's imagination, this image has also made it difficult for climate change to be understood as a human concern in the present, instead of a distant problem for the future' (2011: 153). The principle, then, is to avoid abstract, dead, or clichéd messages or imagery, and to find examples, as several green media theorists have argued, that can make ecology meaningful in the context of people's everyday lives (see, for example, Price: 199: Doyle 2011: 3; Galleymore 2013: 160). Discouragingly, however, even critics working within green media and popular culture often look elsewhere – Sturgeon to social action; Ivakhiv to independent film; Doyle, herself, to the art world (see 2011). Yet the likelihood remains that the majority of people will encounter environmentalism, if at all, through popular culture. And, as it happens, for all its contradictions and compromises, green popular culture does not corroborate these failures to imagine a popular environmentalism.

In another early work of green cultural studies, Alexander Wilson argued that tackling humanity's estrangement from our ecological

being, and the environmental risks that had arisen, required a 'new culture of nature' (which 'cannot come soon enough') (1992: 17). A template for such a thing, as Alenda Y. Chang indicates, can be found in Alexander Galloway's argument for a 'Social Realism in Gaming' (2004). Through Galloway, Chang (2009) suggests that computer games not only configure the underlying realism of society (e.g. the perilous, metabolic social ecologies engendered by global capitalism) but can also translate the awareness subsequently developed into, as Galloway writes, 'a meaningful relationship between the affective actions of gamers and the real social contexts in which [gamers] live'. By much the same principle, other affective modes of green media/popular culture can help encourage what we might call an 'everyday ecology'.

One example is Colin Beavon's excellent comic documentary, *No Impact Man*. At the start of the documentary, as he is about to appear live on a television chat show, Beavon expresses bafflement at how he'll explain how you or I might save the polar bears. He settles instead for the more 'intelligible' explanation that 'I'm trying to live a life in line with my values' (see DeLaure 2011: 454). The film, thereafter, performs a version of what a zero net environmental impact lifestyle (from no trash or toxins to zero carbon emissions) would require. Through the use of humour and commiseration – e.g. Beavon's often hapless attempts to live, for example, without toilet roll; or his wife, Michelle Conlin's, pained sacrifice of coffee – the film elicits empathy and, in turn, identification. Yet, having done so, it then offers both practical instruction in what would actually be required to alter our existing lifestyles and sensitively imparted ecological awareness. We discover, for example, both the environmental justice implications of waste disposal and, through Beavon's diagnosis, that only social and community action can ultimately engender an ecological lifestyle.

Conclusion

Besides my 'Afterword', it is anime that closes this book. This is fitting. Studio Ghibli, in particular, have consistently deployed the mutable, 'plasmatic' properties of animation to convey the complex dialecticism of posthuman or social ecology. We see this, for example, in *Princess Mononoke*, *Laputa: Castle in the Sky* or in the poignant and beautiful *Only Yesterday*. A complex ecological vision runs deep for Ghibli's co-founders, Isao Takahata and Miyazaki. Two significant and global green media practitioners, both are candid, in the first place,

about the imperfect and contradictory way in which all of us live, if at all, with ecological values. For Miyazaki, because of our basic human nature and because, in a historically specific sense, we have changed our environment so fundamentally, the process of greening ourselves must mean, in the first instance, being able to 'live with [our] contradictions', even 'embrace' them (2009: 163, 209). Both also suggest that we need to be modest in our ambitions. This means working, collectively and humbly, in our own local communities or professions, according to our skills, in trying to co-exist with nonhuman nature and make a difference. Talking of his voluntary work, but suggesting an analogy to his filmmaking, Miyazaki has said, 'I don't know what would happen if I planted grass and cleaned up the river. Will it lead to [a] future? No, it wouldn't. But if I don't do anything, nothing will happen' (cited Cortez 2005: 48). So both realise, ultimately, that maintaining a vision of the ecological society, on the discouraging terrain of global capitalist modernity, will require a leap of faith. As Takahata puts this, 'if one chooses to live, it is necessary to have hope' (see GhibliWorld 2006[?]).

Ghibli's founders epitomise and summarise what a green media and popular culture could be. Any ecological future may indeed be realised, to a large extent, through science, philosophical adjustment, political action and policies. Yet for these ideas to be translated into people's consciousness, and adopted as principles for living, will require stories, images, songs, jokes, and games.

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