Introduction. Intersecting Ecology and Film

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In *The Ecological Thought*, Timothy Morton opens up reflection to an allencompassing ecological dimension; the ecological thought is, in fact, contemporary thought proper, thought beyond narrow thematics, perspectives and disciplines:

The ecological thought is a virus that infects all other areas of thinking. (Yet viruses, and virulence, are shunned in environmental ideology.)... ecology isn't just about global warming, recycling, and solar power—and also not just to do with everyday relationships between humans and nonhumans. It has to do with love, loss, despair, and compassion. It has to do with depression and psychosis. It has to do with capitalism and with what might exist after capitalism. It has to do with amazement, open-mindedness, and wonder. It has to do with doubt, confusion, and skepticism. It has to do with concepts of space and time. It has to do with delight, beauty, ugliness, disgust, irony, and pain. It has to do with consciousness and awareness. It has to do with ideology and critique. It has to do with reading and writing. It has to do with race, class, and gender. It has to do with sexuality. It has to do with ideas of self and the weird paradoxes of subjectivity. It has to do with society. It has to do with coexistence. (Morton 2010: 2)

Screening Nature: Cinema Beyond the Human brings together contributions in the area of film that welcome the kind of viral and virulent contact between film and ecology—in Morton's sense—as part of a broader shift in the ways we speak and think about cinema, its theorization, production and reception. What does the ecological thought bring, or do, to film and to the discipline of film studies?

Morton's point is not to explode the various disciplines into one thoughtful blob, but to work from within disciplines, deepening their scope and reach, tuning into their ecological resonance. Though the task is ultimately a vast one—it entails reconfiguring all branches of knowledge—it can be pursued in a more modest fashion, too, within a specific area of enquiry. We take *Screening Nature* to be one such pursuit within the area of film studies: exposing the field to ecological thinking not as an exclusive sub-stream or strand, but absorbing every aspect of the study and

understanding of film. In the following pages, we wish to lay out some of the key aspects of an ecological thinking of cinema and their implications for both film studies, and film theory.

Whether and how cinema registers, records, or reveals the material reality of its objects, the place of moving images, photographic or digital, in the audio-visual representation of the world, the relationship between film and what the philosopher Tom Regan called 'subjects-of-a-life' (sentient human or nonhuman animals¹), as well as the relationship between film and plant life and inanimate matter—all are ecological matters in the widest and most profound sense of the word. This link between film and the physical world has been a central theme in the study of film and film theory, most notably in the classical theories of cinematic realism of Siegfried Kracauer and André Bazin. Each in his way, Kracauer and Bazin argued for the affinity between film's photographic ontology and the reality it captures. ²

Bazin situated cinema at the juncture of filmmaker, camera, and the world. The complex relationship between these three points is, for Bazin, revelatory and affirms—empirically and morally—the reality of the world and the realism of the medium. As will become clear throughout the volume, Bazinian realism is a key framework which several of the contributors work with, or push against. Not all the authors of the essays collected here subscribe to Bazin's realist premise. Contributors differ in their understanding of the relationship between the medium and the physical world, and, in particular in the case of digital filmmaking, the link with nature requires new kinds of articulations. Indeed, the proliferation of digital media has exacerbated, not lessened, the need to question film's link to the world. Bazin is a benchmark of sorts for thinking about cinema's *commitment* to the world. Seen in this way, as a collective offering of multiple perspectives on the relation between film and

its diverse environments, we hope *Screening Nature* extends the debate on cinematic realism. What everyone seems to agree on, however, is that realism in whatever version attends to those nonhuman elements in which film is bound up, and contributes to seeing, understanding and speaking about cinema beyond the human.

Film theory and film studies have only recently rediscovered what is surely most visible about film: its entanglement in the world it shoots, edits and projects. As a representational art, film 'screens' nonhuman nature as both revelation and concealment. The ambivalence of the screen and of the act of screening, whether as projecting and exhibiting or as filtering and veiling, comes to define film's relationship to its own materiality: its locations, onscreen lives, mise-en-scène, narrative structures, spectators, exhibition spaces, its carbon footprint and chemical building blocks, from celluloid to silicon. All of these are part of cinema's diverse ecologies.

The glaringly obvious fact of film as a consumer and emitter of fossil fuels has been vastly overlooked in film studies and theory alike. Nadia Bozak's ground-breaking study *The Cinematic Footprint: Lights, Camera, Natural Resources* promises to transform our understanding of film by exploring cinema's energetic entanglements. Bozak's excavation of cinema's 'resource politics' (1), its participation in 'hydrocarbon culture' (9), is a corrective, shifting attention from critiques of political economy to those of the energy economy of film (Bozak 2012: 9). Here is the second crucial indexical link to the world that has nothing to do with cinema's photographic specificity. If for classical realists like Kracauer and Bazin, the world imprints itself on the filmstrip in the biochemical encounter between light and emulsion, film in its various technologies (analogue, digital, live action, or animated) also imprints itself on the world. The same is true for nonhuman animals, whose by-

products are part of the photographic and media apparatus (from the oil used to power film production, transmission and consumption, to the collagen-containing gelatin of the filmstrip emulsion, the stearic acid in the plastic parts of computers, or the human labour in front of and behind the camera): animal life is quite literally the stuff of images.

This two-way imprinting process makes film an ecological 'fact on the ground' (beneath the ground, in the seas, and in the air). A revised ontology of the cinematic image is thus one that acknowledges the 'resource-derived, energy-driven essence of moving images' (Bozak 2012: 11). This ontology begs the question of whether film of whatever extraction can be part of an environmentally sustainable economy. So mutually dependent are cinema and natural resources that Bozak (2012: 2) asks 'how might an end of oil affect not only the functioning of society and culture at large, and on a global level, but also, as a consequence, the way moving images are produced and received?' In the digital age, images have become a cheap and pervasive resource in their own right, consumed (at a yet un-quantified or qualified environmental cost) by a growing global, increasingly digitally-networked populace, as well as used to educate, advocate, and agitate for personal, social and political changes in relation to the pressing issues of climate change and global warming. Instead of classical notions of indexicality, then, we are dealing with materiality, which both photographic and digital images share; and this materiality is, in turn, indexical in that it 'refers' moving images to the world that resourced them. This hinge or hook that connects the image to the world has yet to become an integral part of the study of film. As Bozak (2012: 8) explains,

Now, at this moment, the theory, history, and practice of making films can assume an explicit awareness of environment, that images, however intangible or immaterial they might heretofore appear to be, come bearing a physical and

biophysical makeup, and leave behind a residue—a cinematic "footprint," as it were.

A considerable number of the volume's contributions (Armatage, Chang, Ingram, Mayer, Narraway, Packwood-Freeman and Tulloch, Panse, and Pick) engage Bozak's view that 'as environmental politics saturates the imaginations and populations become more self-aware (if not self-regulating) in their ecological behavior, cinema can be seen as an ecological practice' (8).

As *Screening Nature* is not specifically devoted to the 'cinematic footprint' of moving images,³ it is all the more important to establish this aspect of the intersecting of ecology and film as an indispensible environmental premise. Bozak's study begins with the image of the seal hunt in Robert Flaherty's *Nanook of the North* (1922). The seal's blubber provides the caloric energy the Inuks need to survive in the Arctic, and it also fuels Flaherty's film production. The analogy of 'a filmmaker and a hunter's parallel search for energy' (Bozak 2012: 189) is encapsulated in the film still as a 'resource image' (2). In this volume, our relation to animals turns in a different direction, away from animals as raw material and towards the paradigms of animal ethics and animal rights. We see these as integral aspects of the intersecting of ecology and film.

In these expanded, and contested, eco-cinematic terrains, speaking specifically about filming nature or of the genres of nature and animal films makes little sense. For each and every film, whatever else it may be, is first and foremost a record of a relationship to the material world, and the forging of a 'cinematic habitat.' We are not talking solely about the cinematic inscription of the world, but of filmic environments and microenvironments, and of film as an environmental relationship.

Accordingly, this collection does not focus only on nature and animal films, though it includes those too. We take as a point of departure films that foreground ecology in the wider sense of the word. The essays in this book are primarily interested in how something that figures as 'nature' becomes entangled and enmeshed in everything else. Many of the concerns Morton mentions are found here: ideology, race, class, gender, and sexuality, interspecies relations, questions of justice, politics, and aesthetics. Rather than closing in on nature as a separate or reified cinematic entity, we think of nature as an opening onto a myriad of concerns that have to do with everyday life, history, the political, and the formal. Seeing nature as present where it traditionally is not, embedded in the most 'human' places and spaces—and vice versa, recognising our attempted domination of nature at every turn—is not to make the specific concerns about ecological emergency dissipate or disappear. A sense of urgency motivates the essays in this book, and we take the 'ecological imperative' as the backdrop to the study.

We are not directly concerned here with tracing the conceptual slippage of terms like 'nature,' 'the environment,' or 'the natural world.' The series of readings in *Screening Nature*, as well as the collection's title, already imply such an erosion of certainties. We hope the collection offers a well-rounded demonstration of cinematic ecology in action. These demonstrations are, of course, far from exhaustive—they offer a sample, and a varied one at that, of the ecological thought in film texts and critical practices. The volume's interests span the outputs of particular historical moments and regimes, such as the Soviet Union, contemporary Thailand and Bosnia, formal experiments that disrupt conventions of the human foreground and the nonhuman background, the commercial vicissitudes of wildlife filmmaking, media

activism for animal liberation and on the issue of climate change, and the convergence of film form, ecological and religious practice.

If there is an arc to *Screening Nature*, it is the idea that cinema (like other arts) is ecologically oriented and zoomorphic: it expresses the interconnectedness of human and other life forms, our implication in and filtering through material networks that enable and bind us. Film practice, history and theory need to address the zoomorphism of the cinematic medium, not in order to undo the human in a bid for naïve 'renaturalisation,' but because human exceptionalism makes for poor cinema, for a less interesting, and certainly less relevant art. Ecocinema, at its best, we would argue, interrogates the chafing of the human against (and along with) everything else.

The Nature of Film Studies

The contributions to this collection are part of an effort to inscribe ecology and nature back into film studies, back to where nature has always been, in the hope of encouraging to 'normalise,' even institutionalise, a more ecocentric attention to cinema—attention to the interdependence of the natural world and humans within it as integral parts of the study and practice of film. For this purpose, green and activist films are not privileged categories. Rather, we are interested in how political, ethical and formal discourses come to bear on cinema's relation to nonhuman nature and nonhuman beings. We are also keen to show how aesthetic concerns are inseparable from the material and formal possibilities inherent in nature, which film responds to or invokes. Finally, as discussed above, film *as* environmental practice signals beyond the textual and symbolic properties of nature towards the web of material and social interactions that underpin the production and dissemination of film. It is not,

therefore, simply a matter of claiming that nature is central to film but of showing how film and nature commingle in culturally situated and context-specific ways.

As much of film studies carries on anthropocentrically in ways that single out 'humanity' and obscure the convoluted relations between humans and what Donna Haraway (2008) calls our nonhuman 'messmates,' a growing body of work in the field is acknowledging the mutual exchanges between human and nonhuman animals and their environments. Gregg Mitman's Reel Nature: America's Romance with Wildlife on Film (1999), Derek Bousé's Wildlife Films (2000), David Ingram's Green Screen: Environmentalism and Hollywood Cinema (2004), Sean Cubitt's EcoMedia (2005), Cynthia Chris' Watching Wildlife (2006), Robin L. Murray and Joseph K. Heumann Ecology and Popular Film (2009), Scott MacDonald's Adventures of Perception (2009), Paula Willoquet-Maricondi's Framing the World (2010), Graeme Harper and Jonathan Rayner's Cinema and Landscape (2010), and Stephen Rust, Salma Mohani, and Cubitt's Ecocinema: Theory and Practice (2012) link the natural environment to the moving image, while Akira Mizuta Lippit's *Electric Animal* (2000), Jonathan Burt's Animals in Film (2004), Raymond Bellour's Le Corps du cinéma (2009), Anat Pick's Creaturely Poetics (2011), and Laura McMahon and Michael Lawrence's Animal Life and the Moving Image (2013) rethink film via the 'question of the animal.'4

This partial list is ostensibly divided between texts that consider nonhuman nature, and scholarship undertaking an 'animal studies' approach (as well as animal studies' intersectional, politically and ethically engaged sister area of 'critical animal studies'). Within and without film studies there is often little rapport between the fields of (critical) animal studies and environmentalism and/or ecocriticism. Our aim here is to query and blur these distinctions by bringing together an assemblage of film

studies, critical animal studies, and ecocritical considerations. Collectively, these approaches could be termed 'posthuman' in the sense of looking beyond, queering or contesting cinematic forms that simply corroborate human exceptionalism, both in terms of what the films address and in terms of the ways they address it. This is what we mean by our subtitle 'cinema beyond the human.'

The theoretical implications of a non- or posthuman cinema to the field of film studies are profound and challenge the conventionally humanist and anthropocentric parameters of the discipline. The collection's underlying argument is, then, that by ignoring the place of the nonhuman within cinematic imagery and narrative, film studies commits itself to an unduly narrow visual economy that overwrites and reduces the communicative potential of the cinematic image. Even at its most political, film studies has tended to underplay the intertwining of historical, social and ideological concerns with the environments in which they arise and which they constitute. By treating nonhuman environments as mere backdrop or mise-en-scène at worst as available and expendable raw material—our thinking about cinema divides up the frame between the human and the nonhuman in ways that overlook their essential interdependence and reinforces the culture/nature dualism. It ascribes to nature *and* humans alike a 'naturalness' they do not possess. 6 Screening Nature strives to continue the work of revising some of the most deeply entrenched anthropocentric and, in Tom Tyler's term, 'anthroponormative' hermeneutics of film studies and apply them, across the board, to all of the medium's carbon-based components, from humans to animals to the film screen itself.

Several principles guided us in selecting the essays for the book. We wanted to discuss a range of films that do not readily fit into a single genre, style or mode of production. While many of the films do foreground nonhuman animals and the

environment, the authors' response to them is not limited to ecological tropes. Addressing the nonhuman is inseparable from addressing the films' broader range of concerns, from sexuality, to science, religion, social justice, aesthetics, ideology, and ethics. The theoretical breadth of Screening Nature is thus considerable and draws on film history and theory, philosophy, cultural studies, animal studies, ecocriticism, queer theory, and religious studies. The collection is also internationally intersectional. Nash (2008: 2) defines 'intersectionality' as 'the notion that subjectivity is constituted by mutually reinforcing vectors of race, gender, class, and sexuality,' while for Twine (2010: 398) the intersectional approach is one 'that attempts to outline interdependencies between social categories of power.' An intersectional view considers critical and identity categories, as well as the idea of categorization itself, as complex and multivalent. Prevalent in the areas of feminism and sociology since the 1990s, intersectionality has become 'a primary framework for thinking about multiple identities and the interconnectedness of various systems of oppression' (Mehrotra 2012: 417). Our own use of the term does not simply intersect ecology and film, but insists on the need to think through cinematic ecology with race, gender, class, and species identities. That the natural world is neither the stage for nor an add-on to other critical preoccupations is, perhaps, the collection's main contention. If we provide a concrete sense of the interconnectedness, complexity, and promise of the ecological thought within film, then we will have succeeded in achieving our goal.

There are a number of specific objectives we wish to fulfil: firstly, we aim to call on film studies to take up nonhuman nature and nonhuman animals as proper cinematic subjects that necessarily impact on our traditional ideas about narrative, character, spectatorship, and cinematic ethics; secondly, we wish to challenge

pervasive clichés about nature's 'indifference,' since many of the films under discussion ascribe to nature an agency, materially, symbolically, or animistically.

Jane Bennett's work on 'vibrant matter' provides a useful framework for viewing the material environment as an undervalued 'actant' with which human beings and cultures intersect and interact.

Similarly, we might consider N. Katherine Hayles' constrained constructivism which, while acknowledging that our comprehension of nature is determined by our physical, cultural and intellectual make-up, asserts that the natural world places limits on how we read it. Our third objective in *Screening Nature* is to challenge the idea that the nonhuman is ahistorical or immutable, a claim frequently made about nature, and which the interconnected approach aims to refute.

In filmic terms, the distinction between human and nonhuman nature can be configured as the tension between the predominance of narrative and landscape (Lefebvre 2006). As we have suggested here, reading films with an ecological eye partly means learning to see beyond the confines of narrative and story, whose 'natural' tendency, as it were, is to suppress the nonhuman elements by relegating them to the role of setting, background, or prop. At the same time, it means no longer viewing landscape—itself already a laden human construction—as passive or mute. An ecocentric, zoomorphic perspective on film, deployed in many of the present essays, can potentially reshape film studies and reorient the field in a more ecological direction.

Root and Branch Interdisciplinarity: Film, Ecocriticism, and Animal Studies

This is the first time, to our knowledge, that a volume on film comprises essays on
both nature and the environment, and on nonhuman animals. By placing such chapters
side by side, we are fostering a much-needed conversation about nature and the

nonhuman, not only among film scholars, but also, in a number of essays, between practitioners of the not-always-happily-partnered disciplines of ecocriticism and (critical) animal studies. *Screening Nature*'s mixture of contributions on the natural environment, animals, or both, reflects the various intersectional concerns about race, class, sexuality, and politics. The mix is intentional, and while it is not intended to be harmonious, the collection is also a kind of community of ideas that we believe should inform a comprehensive look at ecology, posthumanism, animal liberation, and film. *Screening Nature* thus engages with the interpenetration of different structures of domination, including those amongst humans, but is underpinned by philosophical concerns surrounding species-based domination: the marginalisation, exploitation, and oppression of the nonhuman by the human. ¹⁰ Therefore, although a number of the scholars contributing to *Screening Nature* come neither from the field of (critical) animal studies nor from that of ecocriticism, it is these two approaches that, in conception and inspiration, inform the collection.

Ecocritical and animal-centred approaches, however, have not always seen eye-to-eye. Environmental criticism does not, generally speaking, focus on obligations to particular animals. In comparison, critical animal studies will often insist on a commitment to veganism and on ending, rather than ameliorating or 'managing' the conditions of, human use of animals. For environmentalists, concerns over species, populations and ecosystems often trump ethical obligations towards individual animals. Animal liberation and rights discourses regard the relation to particular nonhuman persons as primary. Increasingly, however, there is a need, theoretical as well as practical, to find ways of connecting the fields. Matthew Calarco (2009; 2012) works towards what he calls an ethics of 'universal consideration' that accommodates both approaches: 'rather than being in opposition to each other, animal

ethics and environmental ethics would be seen as two distinct but complementary forms of ethical inquiry and practice that seek to challenge the limits of anthropocentrism' (Calarco 2009: 83). *Screening Nature* aims for a non-anthropocentric critique in which 'animal ethics becomes but one way among others of thinking through ethics, with specific attention given to the manner in which various animals might have a claim on us and what consequences follow from responding to such claims. That other kinds of beings, systems, or relational structures might have a claim on us is not ruled out but rather is allowed in principle under an ethics of universal consideration' (Calarco 2009: 83).

By placing side by side essays that focus on the environment and essays that focus on nonhuman animals, we are fostering a broader debate that confronts the differences and commonalities between the two approaches, whose methods, underlying principles and conclusions sometime chime and sometime conflict. When writing about the moving image, whether one focuses on the environment or on nonhuman animals, we share a common belief in the significance of the nonhuman world to the work of film studies. Such posthuman commitments are important, we think, at a time when environmentalism and animal rights alike are becoming more mainstream yet, paradoxically, ecologically damaging practices and animal welfare standards (as well as the ethical standards for animals in entertainment, including film and television) are arguably at a serious low.¹¹

Chapter Outlines

The notion of an environmentally engaged cinema moves beyond what a film shows and tells us about nature towards the web of material and social involvements that underpin its production and dissemination. Film's environmental acknowledgement, as the fifteen essays in this collection show, is manifold and does not, as we have already indicated, adhere to a particular genre or style. The volume's four parts—ecopoetics, zoë-tropes, eco-politics, and eco-praxis—highlight different kinds of environmental acknowledgement. The collection's mix of theoretical pieces, ecophilosophy, critical theory, and close readings, conveys the diversity of work in the field of posthumanist film studies.

Part I, 'Eco-poetics,' explores the links between filmic form and the environment. The section begins with Anat Pick's essay 'Three Worlds,' on the ontologies of cinematic worldhood. Using Heidegger's concept of worldhood (*Weltlichkeit*) and Bazin's idea of 'the world in its own image,' the chapter explores how different films that feature nature and animals invoke different understandings of the relationship between human beings and the world: the BBC's natural history series' imperial-planetary eye that oscillates between an 'acquisitive' and an 'evocative' mode; Werner Herzog's *Grizzly Man* that romantically pits 'man' against 'nature'; and the activist documentary *Earthlings*, whose holistic view of a shared life on earth strives towards a multispecies conception of worldhood.

A different view of the bond between image and world is pursued in Silke Panse's essay on experimental filmmaker James Benning. 'Images are not separated from what is depicted in them; they are part of the world,' Panse writes. In this, and the companion interview with Benning (Chapter 3), Panse explores 'eco-aesthetic' cinema that opens out from the image onto the world that contains it. Read against the dominant understanding of Benning as a structural filmmaker, Panse retrieves the singularity and materiality that Benning's films conjure. Panse's critique of Bazin's realism through the idiom of eco-aesthetics insists on the consistency and continuity between the framed, profilmic event, and the world beyond (behind) the camera:

'[t]he filmmaker or artist, the work and the "context" or the "environment," Panse insists, 'all belong to the same plane of immanence,' and so '[f]ilm and video needs to leave pure aesthetics.'

Part II, 'Zoë-tropes: Envisioning the Nonhuman,' examines the different configurations of the nonhuman in film. The double invocation, of the cinematic apparatus in the reference to the zoetrope, and the allusion to 'mere' animal life via the Greek concept of zoë (naked life, in opposition to the moral and political life, or 'bios' of man), turns to the ironies and complexities of depicting animal life on screen. James Leo Cahill's opening chapter tackles the visually startling aquatic filmworlds of Jean Painlevé and Geneviève Hamon via the ambiguities of the concept of anthropomorphism. 'The cinema,' Cahill writes, 'may be an anthropomorphic machine, but this does not necessarily make it an anthropocentric machine.' The possibilities inherent in the anthropomorphic that emphasise the plastic, transformative, morphing and morphising qualities of cinema make it a fascinating, frequently misunderstood, trope. The shaping and reshaping that takes place in film, 'the plasticity of beings and things revealed by the cinematograph,' discloses the fissures at the heart of the anthropomorphic as internally haunted, uncanny, or, in Cahill's use of Freud's uncanny and Lacan's 'homme-sick'—the internal difference, longing, and malaise/mal-ease that determine human and nonhuman identity: 'the ambivalence of cinematic anthropomorphism, like homme-sickness and the *Unheimliche*, prevents it from becoming too stable, static, or fixed.'

The accommodation of uncanny elements in the realm of the natural and the everyday is the subject of May Adadol Ingawanij's piece on 'animistic realism' in Apichatpong Weerasethakul. Apichatpong's aesthetics is closely tied to the jungle in its mythic, semiotic, folkloric, and biological diversity as an ecosystem comprising

human and nonhuman entities. Using Adrian Martin's notion of *dispositif*, Ingawanij explores Apichatpong's 'intermedial' cinema as 'a "catalogue" of references, citations and allusions—an ensemble that presents within itself a diverse array of preexisting media, texts, myths, stories, rituals, and other communicative practices.' This 'logic of assemblage,' traverses past and present, material and immaterial, human and nonhuman, performing the various elements equally and realistically. The supernatural in Apichatpong's cinema is therefore neither fantastic nor haunting, but historically situated, embedded in the context of Thai colonial and postcolonial politics in the northeastern region of Isaan, where many of Apichatpong's films are placed.

In their study of the 'activist gaze,' Carrie Packwood-Freeman and Scott Tulloch tackle the place of film in the biopolitics of nonhuman life. Examining the rhetoric and witnessing strategies of prominent animal liberation documentaries, *The Cove* (2009), *Dealing Dogs* (2006), *Fowl Play* (2009), *The Witness* (2004), *Peaceable Kingdom* (2004), *Behind the Mask* (2006), and *Earthlings* (2005), the authors claim that these films operate through a 'reverse panopticon,' surveilling and exposing the concealed cruel practices of politically and economically influential animal industries, and striving to subvert, even overturn, power relations between industry, its nonhuman victims, the viewing public, and animal activists. As '[b]arriers to seeing are not just material... [but] also conceptual,' the 'seeing' that these activist films make possible disrupts the 'hegemony of humanism.' The films push against human/nonhuman dualisms to 'promote animal rights ideology, and function as posthumanist cinema.'

Part II closes with a piece on the history of Antarctic animal imagery.

Elizabeth Leane and Steve Nicol's study ponders the unique place of 'the

contradictions and incongruities that frequently characterise human relationships with animals' in early Antarctic exploration films. The gap between onscreen animal attractions—including dogs, ponies, and native species like the Emperor penguin—and their (offscreen) killing and consumption by the expedition complicates our understanding of human-animal relations and its portrayal in film. The 'central narrative link between wildlife and the human drama—the reduction of the former to food to enable the latter—was not one that the expeditions were keen to showcase visually.' Two main examples of early Antarctic films, 90° South (1933) and South (1919), establish many of the conventions of the wildlife film to come, including a composite narrative, characterisation and storytelling, anthropomorphic identification, the appeal to recognisable gender roles, and an enduring fondness for penguins (see March of the Penguins, and Happy Feet).

Sophie Mayer's essay 'Dirty Pictures,' which opens Part III on the eco-politics of film, is a deft illustration of the collection's intersectional bias. Mayer moves across registers, using the migratory agency of water to explore desiring exchanges between bodies—personal, geographic, and political—through the idea of miasmic contagion. In the films of Apichatpong Weerasethakul, Lucrecia Martel, Tsai Ming-Liang, and Sarah Turner, Mayer claims, water dampens conventions of Euro-Western narrativity and hetero-normativity, not merely by seeping through boundaries but by the very fact of water's pollutedness. Sexual and neoliberal politics are explored via the symbolism and osmosis of water as a queer and queering medium, the subject of exchanges between personal and national bodies.

Elana Gomel chooses to write about a lesser-known genre of Soviet cinema: science fiction. Soviet SF has recently enjoyed a small revival (in 2011 the British Film Institute ran a retrospective of the genre), not only because of the new

availability of Soviet SF titles but also because SF is a significant testing ground for the ideological permutations of what Gomel calls 'Soviet civilization,' a platform for communicating many of the Soviet Union's political hopes and dreams in the making and unmaking of the Communist utopia. ¹² Gomel challenges accepted wisdoms about Soviet cinema, in particular reductionist dismissals of its Socialist Realist style, and opens up the Stalinist and post-Stalinist period to formal and political revaluation. The relationship to nature emerges as an index of Soviet utopianism, its aspirations, failures and achievements.

If the USA is in more ways than one a mirror image of the USSR, Claire Molloy's chapter on *Avatar* examines America's ideological investment in nature. As with its Soviet counterpart, American SF reflects the self-fashioning of the American empire. Hollywood constructs nature as both fragile and retaliatory. Molloy focuses on the relationship between gender and narratives of domination that underlie *Avatar*'s treatment of nature and nonhuman animals. While much has been written about *Avatar*'s colonial and racial discourses with regard to 'indigenous' bodies, less has been said about the intersecting of colonising and gendering discourses, and the domination of animals. By examining 'how fantasies of colonisation sustain, and even promote as environmentally sensitive, the subjugation of animals through the intersections of gender and race,' Molloy brings out some of the ideological and philosophical tensions between environmental and animal ethics.

In the last chapter of this section, Steven Eastwood and Geoffrey Alan Rhodes reflect on the making of their co-directed film *Buried Land* (2010). Eastwood and Rhodes question what it means to 'document' the story of the 'Bosnian pyramids,' a cluster of pyramid-shaped hills near the town of Visoko. The making of these 'ancient' pyramids, a combination of local mythmaking, archaeological heresy, and

entrepreneurship in postwar Bosnia, becomes the subject of the documentary, self-referentially entangled in questions of representation and truth. The blurred boundaries between natural and manufactured topographies parallel debates on the alleged transparency of documentary truth. The story of *Buried Land*, therefore, comes to mirror the story of the Visoko pyramids, the production of film and the production of landscape, both of which are processes that unsettle the notions of 'naturalness'—the present and unstaged reality—of documentary film.

Part IV, 'Eco-praxis,' turns to filmmaking itself as a form of environmental practice. *Screening Nature* comes full circle with Guinevere Narraway's discussion of 'ecopoiesis' in the work of experimental filmmaker Rose Lowder. Lowder's work is informed by an ecological ethic involving a production practice that has a low impact on the environment. Moreover, her method is consciously and politically embodied and emplaced. She films in local and familiar places and accepts the accidental technical, natural and social events that occur during and after filmmaking, responding to the exigencies of her tools and the environment by incorporating them in her work. Yet Lowder's filmmaking is nevertheless deeply formal and structured. This reflects a concern with waste, both literal (the squandering of film stock) and metaphorical (the effusion of images). It is through her highly structured yet pleasurable and receptive texts that Lowder undermines the culture/nature dualism in her work, disrupting our conventional ways of seeing nature and opening up the possibility of a relationship of mutuality with the nonhuman.

A different escaping of dualisms is explored in Chia-ju Chang's essay on spectatorship as a form of Zen Buddhist practice. Through the viewing practices they encourage, films do not only express but may also embody a 'spiritual-ecological' awareness that draws on the nondualisms of Zen. While aspects of Buddhism, like

ahimsa (nonviolence) have been widely recognised for their 'green' and animal rights potential, the 'soteriological aspect of Buddhism has not been fully articulated with regard to its ecological relevance.' Focusing on Bae Yong-kyun's 1989 Why Has Bodhidharma Left for the East, Chang reads the film's invocation and incorporation of $k\bar{o}an$ practice (the method of Zen training that proceeds via a series of questions or narratives designed to deliver the student beyond his or her dualistic attachments) not as a retreat from or critique of the supposed ills of contemporary life but as a way of showing 'how filmmaking practice and film art can be a form of religious experience.' Approaching Bodhidharma as a ' $k\bar{o}an$ film,' Chang argues that it invites a mode of viewing that rehearses meditation and $k\bar{o}an$ practice, and shows how film itself can function as 'an agent of transformation of ecological consciousness.'

A different mode of eco-praxis is critiqued in David Ingram's piece on An Inconvenient Truth, a veritable classic of environmental documentary. Ingram is concerned with how ecologically oriented films communicate their message to bring about change. He examines the film's argumentative strategies vis-à-vis its scientific credentials. The demands of scientific nuance and specialisation on the one hand, and the need for 'epistemological closure' in the public sphere on the other, produce the 'narrative of scientific consensus and epistemological certainty over the theory of anthropogenic global warming' central to An Inconvenient Truth. Gore's 'rhetoric of scientific certainty,' Ingram shows, is not only fodder for climate change sceptics but has come under critique from the political Left. Beyond the specific issues raised by An Inconvenient Truth, then, Ingram considers the 'validity of Enlightenment notions of rationality and science' and sheds light on the difficulties in harnessing scientific evidence for the purpose of social persuasion.

We close with a chapter on film's exhibition context. Kay Armatage provides a comprehensive critical overview of different festival outlets for a (broadly defined) ecocinema, and looks at some of the problems generated by the rise and rise of environmental film festivals. Her close look at Planet in Focus offers a case in point for the growth and mainstreaming of ecologically themed film events, central to ecological outreach and activism yet part of the growing commercial awareness around the production and dissemination of nature films. Planet in Focus, Armatage shows, has expanded from a niche to a wider public event, and though expansion brings with it its own complications, it signals the welcome maturation of the environmental movement. Armatage's piece paves the way for further considerations of the potentialities, pitfalls and obligations of public—artistic, commercial and activist—engagement at the intersection of ecology and film.

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¹ See Tom Regan (1983), *The Case for Animal Rights*. Berkeley: University of California Press, 2004.

² See, primarily, Siegfried Kracauer's 1960 study *Theory of Film: The Redemption of Physical Reality*, Princeton: Princeton University Press, 1997, and André Bazin's

(2005) 'The Ontology of the Photographic Image,' in *What is Cinema?* Volume 1 [1967], Hugh Gray, trans. Berkeley: University of California Press, pp. 9-16.

³ Narraway's chapter touches on the environmental impact of filmmaking through her discussion of Rose Lowder's work. Lowder's films represent an environmental activism both in terms of Lowder's efforts to produce low impact texts and through the potential of her films to change the viewer's engagement with the more-than-human—the human and the nonhuman world.

⁴ The list is partial and does not include contributions to ecocriticism that pioneered the linking of ecology and literature, such as Lawrence Buell's *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture* (1996). Moving image work followed suit, and the present collection aims to push further the environmental paradigm shift in the study of film.

Although different scholars prefer different labels (or none at all), and while there is much crossover between the two fields, the distinction between animal studies (AS) and critical animal studies (CAS) is largely political. AS explores various aesthetic, philosophical, and interdisciplinary questions pertaining to animal representation, human-animal relations and the human/nonhuman boundary. CAS espouses a commitment to animal liberation, veganism, and emphasises activist links with other social justice movements. Much work in CAS is thus intersectional, working on the continuities of oppression of human and nonhuman animals, and drawing feminism, anti-capitalism, LGBTQ, race, and ethnic minority rights. See the Institute for Critical Animal Studies website, http://www.criticalanimalstudies.org/about/, and the *Journal*

for Critical Animal Studies (JCAS), http://www.criticalanimalstudies.org/students-for-cas/journal-for-critical-animal-studies/. This expanding field of enquiry is not a binary domain. Alongside, or overlapping with, AS and CAS, is the area of human-animal studies (HAS), associated with the Animals and Society Institute (ASI), http://www.animalsandsociety.org/pages/human-animal-studies.

⁶ On such processes of 'naturalisation,' see Noël Sturgeon's (2009) *Environmentalism in Popular Culture: Gender, Race, Sexuality, and the Politics of the Natural* (Tucson: University of Arizona Press). Sturgeon explores the ideological mobilisation of nature in American popular culture, in particular 'the naturalization of violence and conquest and of white, suburban, nuclear family' (Sturgeon 2009: 149) by employing what she calls a 'global feminist environmental justice analysis' (6).

⁷ See Tom Tyler (2013), 'New Tricks,' *Angelaki* (forthcoming).

⁸ Werner Herzog has been one of the main proponents of this nonsense. On Herzog's notion of nature's indifference, see Brad Prager's 'Landscape of the Mind: The Indifferent Earth in Werner Herzog's Films,' in *Cinema and Landscape*, pp. 89-102.

⁹ See Jane Bennett (2010), *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press.

¹⁰ See also, Erika Cudworth's (2005), *Developing Ecofeminist Theory: The*Complexity of Difference (Basingstoke/ New York: Palgrave Macmillan), in which

Cudworth argues for the viability of ecofeminist methodology to understand wideranging, and interrelated, forms of social domination.

¹¹ See for example, Claire Molloy's forthcoming 'Animal Cruelty and Reality Television: A Critical Review.' in Brewster, Mary and Reyes, Cassandra, eds. (2013)
Animal Cruelty: A Multidisciplinary Approach to Understanding. North Carolina:
Carolina Academic Press.

¹² The series 'Kosmos: A Soviet Space Odyssey' ran from July to August 2011 at London's BFI Southbank. See also 'Red Skies: Soviet Science Fiction,' http://www.bfi.org.uk/sightandsound/feature/49760, and Jonathan Romney's 'Berlinale 2011: Strange energies from the east,' http://www.bfi.org.uk/sightandsound/newsandviews/festivals/berlin-2011.php. Accessed 20 May 2012.