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WRITING ABOUT NATURE:
AN ECOCRITICAL AND TECHNOBIOPHILIC PERSPECTIVE

Abstract

This article explores how the theoretical perspectives of ecocriticism and technobiophilia may give us interesting insights into various modes of writing nature from literary to digital and the lived experience. I discuss how we humans are part of nature and embedded in it even as-and perhaps because- we try to make deep and permanent changes to it that have lasting impacts upon the environment. In this paper I look at writing about nature and apply an ecocritical approach to it so as to compare yearnings with realities and also to look at some stages in between. I utilise autoethnographic methodology to relate a personal research narrative about multiple question such as: How is nature represented in creative writing? What is nature and how do humans respond to the built and non-built environment as a part of nature? How has nature writing acted to colonise a world with Eurowestern pastoral evocations? What is the power of nature in narratives? What is the position of humans as part of nature and how does technology influence this? How has human degradation of the environment occurred through human disregard and even fear of it and can we clarify this through the prism of ecocritical theory? Most importantly in what ways can humans understand their position as part of nature? Can we learn about nature from Indigenous and colonised peoples' narratives? In doing so I emphasise the importance of entering nature within the built and technological environment, and, most importantly, the ways that we can write about nature so as to emphasise our human positioning within it. My academic narrative emphasises that we must understand nature differently today due to our human interactions with it that have taken it into a dangerous situation. This personal reflective and subjective yet scholarly narrative about humans in and with the natural world enters into the debate about nature writing today. In this paper, I am utilising autoethnography which suggests that research should include a story and enter into the academic debate about how a scholarly performance is always singular and personal. I tell my story of how I view the need to look at nature writing from an ecocritical and biophilic prism, with emphasis on the positioning of the technical within nature via the theoretical prism of technobiophilia.

Key words: technobiophilia, biophobia, nature writing, autoethnography

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Introduction

Academic narratives always involve the presence of the scholar telling the story and each can be seen to involve emotion as well as reason or to produce a narrative that that “moves the belly as well as the head” (Bochner, 2000: 270). The central narrative of this paper occurs through an autoethnographic methodology in keeping with this revelation by ethnographers that they were always present in their data collection and study. It involves a personal yet scholarly response to the vital question of how nature is represented powerfully in written narratives.

This narrative looks at how today readers and writers live in a built environment that most often occurs within large urban areas and not on the land or in the traditional pastoral landscapes. In an era when technology dominates much of the world, a theoretical ecological perspective ‘technobiophilia’ also asks us if we can love both the technical - arising from and within the built environment - and the biological: the web of nature.

In a world dominated by technology and fast moving towards virtual reality (VR) can we still love and write about nature as understood traditionally? Today, there is both a fear of nature (biophobia) and a longing for it (biophilia) inscribed in much of the lived textuality of human urbanisation. As humans move their natural world more into the digital space, writing nature is under challenge. It can no longer be tightly defined by literary writing traditions such as: natural history information, personal responses to nature, and interpretations of nature that are philosophical and poetic. Technology has altered textuality and discourse and taken it from words on the page to many ways of expressing and interacting. Today ‘Ecocriticism’s diversity also extends to engaging with a variety of literary forms as well as, increasingly, film, TV, digital environments and music, and to an interest in representations of the urban’ (Mar land, 2013: 846). In this article I explore some implications of this towards an understanding of the largely urban experience of the self within the bios.

Ecocritical Theory

What is nature: do we humans create and then destroy what nature is? Do we love, hate or ignore the natural world seeking always to re-arrange it for our own purposes? We are certainly a part of it, and ecocritical theory addresses this: “the widest definition of ecocriticism is the study of the human and non-human, throughout human cultural history and entailing critical analysis of the term “human” itself” (Garrard, 2012: 5). For Greg Garrard this involves a sensitivity to ecological questions and challenges that he calls “ecological literacy” (Garrard, 2012: 5) that entails an understanding of how environmental rhetoric is structured to produce affect in readers and of how cultural influences produce meaning. Garrard discusses how humans are too often seen as toxic poisoning and as destroying pure nature. He alludes to a compelling negative image: “the toxic taint of humanity” (Garrard, 2012: 15). Yet despite such negativity even traditional poems such as *Autumn* by John Keats and *Spring* by Gerard Manley Hopkins evoke a love of the natural world whether composed again by humans or in its untainted state. This yearning for the natural pastoral world is evident in many literary poetic statements largely read within urban contexts. It leads me to the question ‘how has nature writing acted to colonise much of the world with British pastoral evocation?

The pastoral and biophilia

Commonly taught today in schools and universities around the world, these poems (and many similar ones alongside landscape texts) seem an innocent enough expression of a love of nature. However, a close reading of such nature writing shows that this involves a powerful if unspoken ideology of British global domination of literature and hence of pastoral and environmental images, ideas and interactions.

The British pastoral tradition of writing nature evokes a particular love of a particular form of nature. Such apparently innocent pastoral evocations of the English countryside are embedded in British education at home and abroad so that, as Terry Eagleton (1988) says, such literature is not innocently pastoral at all. Rather, it contains and spreads ideologies that he defines as “those modes of feeling, valuing, perceiving and believing which have some kind of relation to the maintenance and reproduction of social power” (Eagleton, 1988: 15). For the British at home it historically meant (and still means)

that general education and literacy was imbued with literary cultural references that held the British class structure together. In British colonies abroad it served (and still serves) an even more powerful ideal to exchange the social structures and beliefs, languages and ideas of the colonised for those of the coloniser, debasing the colonised and reifying the British colonisers. In projecting particular views of nature as beautiful, pastoral British writing reads differently when seen through an ecocritical prism.

How can nature writing be so influential in relating the environment through literature? We can find answers in reading the colonised such as Igbo writer Chinua Achebe (2009) who finds these influences instrumental in the rejection of Igbo ways by the colonists who influence educational content: “British penetration of West Africa...was not achieved only on the field of battle...but at home also, in churches, schools, newspapers, novels etc. by the denigration of Africa and its people” (Achebe, 2009: 62). Writing nature was implicated in a civilizing British imperative. As Achebe went to an Igbo school that repudiated all Igbo knowledge, he read “lots of English books there”. He saw himself as other than African because his country was derided and suffered as Conrad’s “black heart”: “the white man was good and reasonable and smart and courageous. The savages arrayed against him were sinister and stupid, never anything higher than cunning. I hated their guts” (Achebe, 2009: 118). So stories about Africa put him as an Igbo “in the wrong crowd, in the party of the man who has come to dispossess you” (Achebe, 2009: 118). Curiously, this can be applied to writing nature in literature, as Achebe studied all of the Romantic poets.

As this Euro-Western view of pastoral literature implicates nature writing in the Eurowestern colonisation of the world that began with geographic and cultural dominance and then also brought educational ideology as well as religion and commerce as powerful exploitative allies “...explanations and discourses are irreducibly fractured by the epistemic violence of monopoly imperialism...the correct configurations are usually taken to be found only in Europe...” (Spivak, 2000: 219-20). Such ideology underpins the literary pastoral writing about nature and is always there to be seen and even dealt with.

We can see the power of literature in evoking certain aspects of, and relationships with, the environment as at its heart and in its many guises and evocations, nature writing is about humans’ relationship with the land: with plants, animals, the sky, rivers and seas. For example, Australian Aborigines relate to the land in ways that the colonisers chose not to accept. Instead they called it “terra nullius”, a land without meaningful interactions of power and ownership inhabited by the many Indigenous Nations (see <https://aiatsis.gov.au/>). Terra nullius describes a land awaiting colonisation for a new Britannia in the great southland. It deems nature as something that must be re-arranged, yet much nature writing extols what is there to be discovered. This is particularly true of wilderness and even travel writing; it indicates a colonial construction of nature.

Writing nature - the literature of nature and the environment - does not exist in a cultural or ideological vacuum (Fox & Xu, 2017), nor is it of one style, genre or publication type. It has developed many different strands involving travel and wilderness writing as well as environmental and ecological writing. It takes up a great deal of space in bookshops as well as in other means of delivery for example online, in TV, film gaming and in immersive VR. Writing nature exists also as a form of characterization itself in most forms of texts. In all of these the prominence of nature around us in our consciousness is confirmed. As we humans are a part of nature, the non-built world around us continues to involve and excite our interest and meet our yearning to participate in it, most recently through VR. This provides us with what at first glance may seem anomalous: the relationship of technology with the natural world. Environmental activist David Suzuki (1997) reminds us of this dilemma:

If we are to balance and direct our remarkable technological muscle power, we need to regain some ancient virtues: the humility to acknowledge how much we have yet to learn, the respect that will allow us to protect and restore nature, and the love that can lift our eyes to distant horizons, far beyond the next election, paycheque or stock dividend. Above all we need to reclaim our faith in ourselves as creatures of the Earth, living in harmony with all other forms of life’. (Suzuki, 1997: 208)

At the same time, a further paradox arises about the so-called ‘advanced’ technological urban human view of nature. Many of us are becoming so urbanised and dominated by technology, particularly electronic communications, that there has arisen a form of ecophobia: a fear of the environment that

exists outside and beyond the urban and controlled built environment (Estok, 2009). Writing nature exists in its many traditional and contemporary forms, but the human fear of, and even contempt for, the uncontrolled biotic remains in both overt and subtle ways in our daily lives dominated by technology that seems to separate us from the world around us. Scholars today discuss if this paradox may be resolved through technobiophilia.

Technobiophilia

The most significant question we humans ask today is ‘what is the position of humans as part of nature and how does technology influence this? In this context perhaps the most striking feature of technobiophilia is that it places humanity within nature even today at the very same time that most of us are married to urban lifestyles heavily implicating new media technologies leading to virtual reality (VR) and artificial intelligence (AI). The relationship of humans with the natural world is argued as being within and part of it in technobiophilia. Inherent in this positioning is the question of how we make nature, change nature, (Thomas, 2013) and develop technology (such as VR) that both is formed by and reflects how we involve ourselves within and through extending the natural world. Humans are a part of nature and can value it for its own sake rather than seeing it as a resource able to be dominated and utilised by and for human well-being (Fox & Xu, 2017). Biophilia, then, recognises what humans do in the environment and also what they bring to it. The most recent major change in human behaviour has been the introduction of electronic communication technologies. Inserting these into the natural world that we are part of has given rise to technobiophilia: a love of both aspects of human behaviours and needs. In this way the biological is concerned with the social and the ecological and this can be seen through screen savers, games, photography and VR that employ visuals of nature and interactions with the natural world such as virtual tourism.

Understanding about how ‘the cyborg and the countryside interact’ led Sue Thomas (2013) to collect examples of the natural world that she found were often used on computers and then to ask ‘what they tell us about the intersection between human beings, cyberspace and the natural world’ (Thomas, (2013: x). Even so this suggests a difference between humans as part of the natural world and as somehow outside it: a kind of alienation. With technobiophilia as a guide we have an opportunity to show how these aspects of being human in both the electronic world of cyberspace and the geographic natural world are not separate from one another, and to show their commonality. Loving nature for its own sake then accords with loving how we interact in nature, not outside it. Put very simply, bringing a love of technology with us as our abilities change and grow, then, is a significant element of nature herself. Moreover, we place interactive and immersive experiences of nature within the experience of technology, particularly VR.

VR enables users to enter the natural world in another way from pastoral writing on the page or through painting, photography or even film. Three-dimensional interactive experiences offer ways to make a vast range of VR activities occur as if they are in real time and space. Yuri Boas (2013) describes VR as ‘the ultimate computational experience’. For him, such VR immersion will one day be indistinguishable from reality, although that is ‘still far away’. However, fully automatic immersive VR achieves for the user ‘the closest experience to reality’ through devices such as head mounted display units, input devices or Cave Automatic Virtual Environment (CAVE). These are becoming cheaper, more generally accessible and more significant elements enabling technophilia, for we interact with nature-and perhaps construct nature itself- through VR. So we see that the love of technology and that of the environment can be combined in technobiophilic attitudes, practices and productions.

Nature writing and Ecocriticism

The prism of ecocritical theory illuminates for us how the degradation of the environment has occurred through human disregard and even fear of it (biophobia). Today, between ecophobia and ecophilia, there is a sense of alarm in nature writing that is also shadowed by a feeling of ennui about ecologically troubled consciousness. Yet, in considering new nature writing (NNW), Huggan (2016) asks if the anti-pastoral has replaced the pastoral or if “new nature writing...generates much of its momentum from broadly ecological understandings of the mutual entanglement of the human and non-human and the profoundly cultural attitudes and assumptions embedded in the natural world” (Huggan,

2016: 156). Because of this, he argues, new nature writing (NNW) relates to environmental theory as it follows an ‘ecological turn’ whilst having residual leanings towards the pastoral and implicating the geographic wilderness with the internal primordial human one.

The power of NNW and the spread of technologies for writing nature have brought to scholarship the critical theoretical perspective of ecocriticism. Initially, this theoretical prism was applied to literary and nature writing that values eco-aesthetics but critiques the relationship of humans to the land with particular reference to environmental degradation (Adamson, 2001). Many scholars today see more traditional nature writing as, and even unrealistically, pastoral and thus providing untruthful visions of natural beauty or as promulgating wilderness thereby envisioning a pristine landscape that no longer exists. Indeed, environmentalists generally seem to be suffering from a fatigue that eliminates hope that human devastation of the natural world can ever be addressed, much less redressed. Jodi Adamson calls attention “...not to the “pristine” natural world celebrated by many American environmentalists but to the contested terrains...of environmental degradation” (Adamson, 2001: 1). In the current time of ecological crisis Ecocriticism can be correlated with environmental concerns that focus on the relationships of humans and the natural environment in its broadest terms. It can thus be shown that technology and the biotic need to be brought together if we are to see humans as IN nature and also if we are to act to repair the ravages of the natural world through technologies that may enable us to rebuild the natural world. At the same time, we see that the lived environment of most people is urban and that traditional nature can be non-present and even threatening. This presents a complex challenge for literature and the environment today. Writing nature is embedded within literary and cultural traditions even whilst it may claims to deconstruct them. Of course, deconstruction is not destruction: it is looking critically at the elements of ideology, culture, education, income and so on that influence the production of a text so as to better understand it. This is in keeping with the definition by Ian Parker and John Shotter (2015) who both address Derridean and Foucauldian definitions with the one that deconstruction acts “... not just unravel hidden assumptions to uncover repressed meanings, but to bring to the fore concerns altogether different from those implicated in the discourses concerned” (Parker and Shotter, 2015: 4). For writing nature this implicates multiple prisms: feminism, postcolonialism, biophilia and ecocriticism and technobiophilia to name a few.

Nature herself it seems is under an inexorable threat not only of a nuclear holocaust but also of climate change. Yet writing nature continues to be of great interest to a wide readership of text, film, games, tourism and VR. It provides a liminal space between the ecocritics, who draw attention to the seemingly irreversible and irrevocable spoiling of the natural landscape by human degradation and those who look at stewardship for future environmental protections (Cohen 2004:20). In this space there is hope and a certain yearning based upon the urge to embrace nature herself and also to apply redemptive technologies.

This is significant, as Frank Stewart (2012) states: ‘Nature writers have become increasingly important to us because they struggle, in memorable language, to resolve the deep issue of this in-betweenness, a resolution crucial to the physical and spiritual survival of our world’ (2012: xv). They bring to their readers, viewers and interactors narratives about ‘the wild, natural, biocentric’ (Cohen, 2004: 10). Such narratives have a growing market interest, but Ursula Heise, a leading ecocritic scholar, notes that ecocriticism has also more latterly gained the attention of academics who now propose to “encourage connections with a social movement aiming to reground human cultures in natural systems’ in order to ‘rescue a sense of the reality of environmental degradation from the obfuscation of political discourse” (Heise, 2006: 503-5). Ecocriticism has, she states, greatly diverse streams bearing several names whilst it makes a space for itself as theory and practice with a ‘triple allegiance to the scientific study of nature, the scholarly analysis of cultural representations, and the political struggle for more sustainable ways of inhabiting the natural world...’ (Heise, 2006: 506). In this discussion this means that ecocritical prisms cannot be easily summarized as they are diverging and the field itself is expanding: hence the relationship with technobiophilia.

Ecocriticism

In what ways can humans understand their position as part of nature? In confronting scientific Enlightenment, socio-political models of knowing and postmodernist critiques, Heise (2006; 2008; 2008b) argues that ecocriticism looks at the human subject in relationship to the natural environment.

Moreover, she notes that engagement with ecological and environmental issues in the western world is possible because of urban sophistication and scholarship that has criticised the domination of knowledge by normative scientific methodologies.

As our perception of the environment is culturally shaped, Heise looks at how ecocriticism acts as a theoretical approach to understanding how our textual productions can either emphasise or negate the interactions between the environment and the persons in it. She is concerned about the capacity to lessen the reality of ecological degradation in writing nature traditionally or taking into account scientific realities of degradation of the planet. She is troubled by the local and particular overlooking and disengaging from the global impacts of writing nature and not acting to clarify ecologically destructive practices.

As a new and broad term, it is noted that ecocriticism has many different interpretations. All, however, agree that ecocriticism is concerned with looking at the relationship of urbanised people with and as nature in this period of environmental crisis. Beginning as a study of nature writing and literary evocations of the environment, ecocriticism is evolving into a much broader prism for articulating environmental presence and concern. This involves moving from the celebration of nature in writing to open enquiry that brings critical evaluations to such textual celebrations.

In his discussion of ecocriticism, Michael Cohen discusses evaluating nature writing via literary critical approaches stating that ‘...critics do not simply choose ideas and best fit a pre-arranged interior cognitive décor. The purpose of subjecting texts and authors to critical evaluation is not simply to search for authority to buttress an argument or perspective’ (Cohen, 2004: 19). He goes on to discuss if nature can/should be read as a text. Of course nature exists outside human textual/cultural constructions: what we do when we discuss/interpret and understand representations of nature can be read and critiqued as textual representations. This gives us critical insights into how we as human beings in our own culture have built constructs and ideologies around and about nature (Fox & Xu, 2017).

This postmodernist method of seeing everything as a text that can be critically read against is evaluated by Serpil Opperman as ‘ecocentric postmodern theory’ that can act against “ecocriticism’s realist orientation” (2006: 104). His aim is to provide a theoretical “guiding strategy of interpretation” (2006: 105). As ecocriticism is a relatively new theoretical strategy in the academy, Opperman’s goal is an important one if an overarching theory is necessary. The basic question this brings forward is whether a concern with environmental issues, with particular emphasis on nature in literature based on a rejection of postmodernist literary criticism, is an adequate base for ecocriticism to add to scholarship. Opperman interprets theories as enabling the processes of making meaning; he sees theories as offering the ability to “develop critical perspectives of how our discourses construct our realities, how language affects meaning making, and how meanings get contested within particular discourses” (Opperman, 2006: 109). His discussion firmly places ecocriticism within current debates about meaning and representation in literary texts that emphasise the shifting basis of reality constructs. He shows that postmodernist criticisms ensure that a space is available for revealing (Estok, 2009) cultural constructions, axiologies, ontologies and epistemologies as holding together power within a socio-political context. In this way nature is not an abstract concept. Opperman argues against the tired criticism of postmodernism as mere relativism. Instead, he evokes it as positive as it subverts negative patterns of thinking and “...also works to validate the dynamic complexity and intrinsic value of nature’s ontological existence” (Opperman, 2006: 115). This leads him to what he sees as an eco-centred approach arising from postmodernist critical opportunities that act to identify and question “all hierarchical systems which basically privilege the concept of domination” (Opperman, 2006: 116). It is the postmodernist deconstruction of givens, including binary opposites, then, that opens up spaces for new and dynamic possibilities and relationships.

The essentially rhizomatic nature of postmodernist thinking and theories enables new and significant unexpected growth in critical thinking and discourse that brings dynamism to ecological textuality and discussions within the academy. Opperman sees this as providing “the ecocritic with necessary analytical tools to explore ideological forces behind the discursive constructions of nature” (Opperman, 2006: 118), leading to a dialogic interaction between text and context rather than a binary. Such an opposition is neatly expressed by novelist Thomas Hardy in his diary: “An object or mark raised by man on a scene is worth ten times any such formed by unconscious Nature. Hence clouds, mists, and mountains are unimportant beside the wear on a threshold, or the print of a hand”; and: “This

evening the west is like some vast foundry where new worlds are being cast” (Hardy 2007:119/120). Clearly such a hegemonic view of nature is inappropriate in today’s ecological crises.

Theoretical tools and prisms enabling ecologically informed readings today impact on all texts, not only the literary, but also, for example, on the lived, cultural, visual, filmic and multimedia immersive VR. Nonhuman nature is read and acted upon by humans, who are also a part, albeit a disruptive one, of the ecosystem. Opperman reassures us that ‘ecocriticism can offer a multiperspectival approach that probes into the problematic relationship of representation and the natural environment’ (2006: 124). In our times of ecological looming disaster, this is timely, in the same way that technobiophilia is timely as humans are so deeply engaged with technology even as we are part of biodiversity ourselves (Clark, 2010).

Global, local, colonial?

How can we learn about our place in nature from Indigenous peoples? Eurocentric views of global imperatives are formed within an on-going colonial bias not always readily identifiable within academic circles even when discussing postcolonialism. For example, Cara Cilano and Elizabeth DeLoughrey (2007) are concerned with bringing to ecocriticism the presence as well as the views of indigenous postcolonial peoples. They point out that there remains a tendency to conflate ‘universal’ with ‘European’ to create a ‘hierarchy of knowledge’ through scientific methodologies, and to ignore the work of ecofeminists. They state that again and still “the rise of the natural sciences is concurrent with European colonialism and the adoption and appropriation of indigenous knowledges of the environment” (Cilano and DeLoughrey, 2007: 74). The question remains as to how ecocritics can speak for non-human nature: of course, a central issue here is how can they not speak for non-human nature and how, in doing so, can they respect indigenous and other ways of interacting with nature within an academic knowledge domain. In discussing the conquered Caribbean, Cilano and DeLoughrey state that “we can see how claims of belonging to the land itself can reify the patriarchal lineage of colonial conquest; although one’s sense of attachment or affinity with a given place may feel “natural”, one’s very occupation of that physical landscape depends upon historical contingencies” (Cilano and DeLoughrey, 2007: 78). They discuss how the notion of an untouched Caribbean environment positions landscapes outside of history: “Thus a vital aspect of postcolonial ecocriticism refuses the nostalgia of pure landscape even while it grapples with the best ways of addressing the representation of the nonhuman environment” (Cilano and DeLoughrey, 79). For them, “the best ecocritical and postcolonial scholarship is interdisciplinary, transnational, and comparative” (Cilano and DeLoughrey, 79) and includes dialogue between nature and humans. Yet we humans are in and of nature.

Perhaps ecocriticism was slow to take off because environmental issues were at first consigned in postmodernism to ideological concerns by ecocritics who saw them as “designed to bolster the hegemony of particular social groups...” (Cilano and DeLoughrey, 2007: 384). However, the emphasis upon particular place and the local is seen by Cilano and DeLoughrey as providing a non-global discourse that is now undergoing change so as to develop detailed environmental ‘analyses of what it means to inhabit a globalized society through vastly increased mobility, contemporary media and communication technologies, or planet-wide labor and commodity exchanges’ (Cilano and DeLoughrey, 2007: 385). Thus the techno and the bio are brought together by an ecocritical prism focussed on humans in and of nature.

The pastoral wilderness represents a central ideological construct of eurowestern interactions with the environment that is closely linked to colonialism. As ecocriticism arises from eurowestern thinking, efforts need to be made so as “to broaden ecocritical research from its Anglo-American focus” (Cilano and DeLoughrey 2007: 387). This involves a broader definition of ecocriticism, and Camilo Gomides offers us the following: “the ecocritic would analyse how a work of art can pique the curiosity of an unsuspecting audience and, inadvertently or purposefully, persuade the audience to take action in favour of the environment” (2006: 16). Ecosystems are not constructed by humans (Robisch, 2009: 704), but representing them in the arts is a human construction based upon ideological and cultural metanarratives and influences, and humans with or without technology exist within them.

Naive or political: anthropomorphism & visual nature writing

In what ways can we write about nature so as to emphasise our human positioning within it? There is much discussion around ecocritical perspectives about the alienation of humans from nature through increased growth of technology as well as living in cities. The introduction of a sense of biophilia or love of nature is seen by many as one way to encourage humans to become embedded once again within the natural world. At the same time, as noted, the love of nature is also the love of the human within nature and thus the human development of technology is not outside nature.

Can we save the world through coming to love the biosphere? (Estok, 2009). Does nature writing/writing nature help by encouraging biophilia or does it act to make hopeful that which is beyond such hope? (Lyon, 1996). Such questions are highly politically charged as they confront modern capitalist practices and emphasise a need to consider environmental issues and impacts. They also confront our willingness or otherwise to be culturally embedded in a post-biophilic technological urban environment. Climate change, for example, remains something that many politicians and even governments are unwilling to accept. In discussing its political implications, Timothy Clark (2010) says that they are often ‘unscrupulous’ and that “Environmental problems implicate huge and relatively new questions of ethics, personal identity, knowledge, social justice, animal rights, the claims of future generations, the value of the nonhuman, and the limits of classical economics etc” (Clark, 2010: 131). He charges capitalism with making such intricate questions simple by seeing that they need only better management to improve and overcome them: a point he rejects completely.

Can human science save the world? There is a certain black humour in asking this question as once again it removes humans from envisioning their lives within a holistic ecological web and positions them somehow outside nature herself. Technobiophilia enables us to see this as a false dichotomy: for example, traditionally we have utilised animals in nature to tell human stories. Such anthropomorphic narratives as Aesop’s fables provide us with an early example of co-opting animals to enact human morality stories. These have been highly influential over centuries not only as story books, illustrations or films but also as comics and electronic as well as board games. They tell stories that enable humans to see what should be done as animals either fail to do the right thing or learn from their actions.

Other elements in nature have also been anthropomorphised. Films based on such books feature, for example, natural beings like trees acting in human-like ways, as the Ents do in *Lord of the Rings*. Anthropomorphic nature writing enables metaphoric imagery to enter into the storyline and enrich our understanding of nature herself. This is yet another paradox enacted by humans intent on conquering the natural world to the extent that an ecological and environmental disaster looms. This dominance of nature extends to interference in Australian Indigenous texts, as with the Gwion paintings in the Kimberley area in Australia. They are an ancient representation of inscriptions of nature by human hands and minds. Many of these are of people and remind us that we are an intrinsic aspect of nature ourselves, with nature writing involving humans not only as recipients but also as enactors. The Gwion paintings are written about in two contentious ways (Akerman, 2009; Aubert, 2012). One denies Indigenous authorship and the other supports it. Writing about these paintings began a contentious Bradshaw paintings debate between 1994 and 2006 as to whether these were Aboriginal or the work of some more sophisticated pre-Aboriginal peoples. Ian McNiven (2011) argues, in defence of Aboriginal art, that the denial of Indigenous authorship is a misrepresentation common to colonial and non-scholarly interpretations: “in all major settler colonial contexts, whether in Australia, Africa or the US, European colonisers often tried to deny local Indigenous agency in the creation of complex archaeological sites” (McNiven, 2011: 37). Certainly, Australian Indigenous art has only recently received the scholarship it calls for, and an ecocritical analysis framework would support deeper reading to enable us to develop insights into the colonised nature of many publications that have hitherto driven the denial of much that has been developed by the colonised.

Technology today provides us with many examples of technobiophilia: perhaps the most famous contemporary international nature writing is in BBC nature TV shows based on the remarkable body of work by Sir David Attenborough. These have kept nature writing before millions of viewers over many decades, and continue to do so:

Encompassing a range of texts from the anthropomorphic programs featuring Johnny Morris, to the didactic style of David Attenborough, and more recently the proliferation of computer-

generated extravaganzas, such as *Walking with Dinosaurs* (BBC1, 2000), the genre has managed to retain a foothold in an increasingly diverse television schedule. (Scott, 2003: 29)

Nature texts can be seen in clothing, gardening and travel as well as sea-change and tree - change. We place ourselves outside and yet within that domain as we yearn to express our love of sea, sky, trees, rivers and the land itself and of one another.

Exploitative or hopeful?

Writing nature has paradoxical influences: at its extremes, it can reassure us that everything in the environment is beautiful or it can terrify us about the ways in which global warming and human exploitation of the planet affect our future. Stephen Hawking warns that the Earth “might end up like Venus, at 250 degrees centigrade [482 degrees Fahrenheit] and raining sulfuric acid. (<https://www.livescience.com/59693-could-earth-turn-into-venus.html>). There are many other opportunities for environmental understanding between these 2 extremes, of course, and nature writing in its various forms and platforms alerts us to these.

The hugely impactful photograph of Earth as the blue planet has become the leitmotif of conservation and even redemption in looking after our planet. Photographic texts of the planet Venus represent the threat of what we may make of our planet if the Earth continues to heat up. They provide us with an impactful vision of what ecocriticism might bring to writing nature in whatever form or textual representation. They certainly take our interest from the local beyond the global to the interplanetary.

Can the planet survive humans; can humans survive on the planet?

Ecocriticism, then, provides a theoretical prism through which to discuss and evaluate the anxieties that have become of central concern about the place of humans within nature. Marland (2013) sees ecocriticism as an umbrella term with a wide remit and as having multiple perspectives and influences but as being focussed on ‘humanity’s destructive impact on the biosphere’ (Marland, 2013: 847). Writing nature today, then, is not confined to pastoral literary explorations (Huggan, 2016), and quite paradoxically is thriving even as the natural world is under pressure from one element in it: humans. Huggan (2016) asks: ‘can humans survive on the planet?’ (171), and this question encapsulates ecocritical interests. One way for humans to deal with this question in their various modes of discourse is a grim humour that is parodic and ironic; a humour that Ian Marshall (2013) says is derived from the use of zeugma or syllepsis. This resolves for him the conceptualisation of writing about that which is currently being destroyed. They make what he identifies as two serious points “about the implications of human activity on the natural world” (Marshall, 2013: 285): humans are polluters and whether urban or in the wild, or in-between, we are embedded in nature. Perhaps, as he more than implies, the only way we can write nature is to produce paradoxical texts “conflating our romantic expectations of nature, as those expectations have been raised by the nature writing tradition, with the modern day reality...” (Marshall, 2013: 285). Is there, then, little hope? Is writing nature today like writing on our collective tombstone? Are we suffering ecological boredom? Is nature writing inevitably embedded in a kind of pastoral nostalgia?

Certainly, many digital games display humanity in conflict with nature, and some also look at ecological redemption. In discussing the risk that games may distract gamers from the real world and its problems, or provide misleadingly simple narratives about conservation issues, Chris Sandbrook et al (2015):

conclude that there is great potential for conservation to take more advantage of digital games, provided that conservation games are developed in collaboration with game design specialists, have specific rather than general aims, target a specific and conservation-relevant audience, and (above all) are fun to play (Sandbrook, Adams and Monteferri: 118)

Heise (2008; 2008b) demands more than this in the thrust of her discussion of eco-cosmopolitanism: she asks us to build global understandings of ecological pressures to illuminate their the narratives they might take and make. Huggan (2016), however, sees this as undervaluing the importance of the local to our relationship with nature and hence with writing nature, calling for “a poetic evocation of the

mysteries of the local, of embodied knowledge of place, of dwelling in the biosemiotics richness of the familiar"... "it is possible to argue that all of Heise's examples of global processes can be evidenced through local case studies" (Huggan, 2016: 169). This dichotomy, false or not, means that ecocritical views are enriched by current discussions of writing nature that elicit connections to the critical ecological state of this planet. Indeed, the claims made for its fruitfulness include Marland's: "in its short history, ecocriticism has progressed from its initial relatively uncritical endorsement of non-fiction nature-writing to its current engagement with a wide range of cultural forms, theoretical sophistication and pluriform status" (Marland, 2013: 860). It may be that technology such as VR, with its immersive three dimensional choices, can introduce technobiophilia into our everyday lives as a new form of writing and living nature.

In making this scholarly narrative I have espoused my own position vis a vis my research and review of the literature.

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