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# Ecological Restoration Restored

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## ABSTRACT

Conceptual and methodological changes in ecology have the potential to alter significantly the way we view the world. A result of embracing a dynamic model ('the flux of nature', and 'disturbance regimes') has been to make ecological restoration projects a viable alternative, whereas under 'equilibrium ecology' (climax communities/nature-knows-best) restoration was considered destructive interference. The logic of sustainability strategies within the context of dynamic forces promises a greater compatibility with anthropogenic activity. Unhappily, environmental restoration turns out to be paradoxical under the current identification of wilderness with wildness where wildness is, at least, a necessary condition for the possession of natural value. The solution to the paradox is to separate wilderness from wildness both conceptually and ontologically by enlarging the domain of wildness to include certain human activities.

## KEYWORDS

Restoration, wildness, wilderness, Thoreau, Leopold

## INTRODUCTION

'...The keeping of bees, for instance, is a very slight interference. It is like directing the sunbeams. All nations, from the remotest antiquity, have thus fingered nature.' (Thoreau, *Reform Papers*, 22)

At a recent conference on 'The Natural City', Robert Kennedy Jr. stressed the importance of cultural continuity gained through experiences with wilderness, especially in urban areas.<sup>1</sup> Urban settings are excellent laboratories in which to study the myriad relations between nature and culture, because novel 'creative'

encounters are produced by the constant tension of an unsettled proximity on a scale unimaginable half-a-century ago. Mr. Kennedy underscored the conference theme by insisting that cultural continuity is unlikely (impossible?) without ongoing restoration projects. This paper offers a philosophical justification for environmental/ecological restoration against those critics who discourage such projects by claiming they create cultural artefacts. This is not to say the critics of restoration would not endorse selective restoration practices – under tight restrictions – only that they stigmatise them by classifying restorative activities as artefact construction within a narrow criterion of human use – that of amenity value.

The controversy over restoration is part of a much larger, more contentious issue regarding the parameters of *the* natural, and figures prominently in the preservation versus conservation debate. We will not directly address this broader concern, but it is worthwhile to contextualise the problem if only to understand the ramifications of an answer to the narrower issue: a change in the status of wilderness and wildness such as is proposed here effectively alters the boundaries of the natural. I claim that there is a real distinction between wilderness and wildness; wildness is the broader category: all instances of wilderness are instances of wildness whereas not all instances of wildness are instances of wilderness.<sup>2</sup>

With the increase in environmental degradation the controversy over restoration has grown more heated and urgent. One group of philosophers in particular has been critical of ecological restoration, claiming that the inevitable outcome of human intervention is an artefact, and as an artefact the restored system lacks (intrinsic) natural value. According to these critics, (non-human) natural value *is* the historical continuity of evolutionary/ecological processes and, once disturbed by human intervention, natural value is forever lost. For example, Holmes Rolston III views restoration projects as eliminating ‘...intrinsic *wild* values that are not human values’. Eric Katz, another outspoken detractor, claims that all restoration activities are prompted by a promiscuous anthropocentrism and represent another instance of a hubristic ‘technological fix ... the practice of ecological restoration can only represent a misguided faith in the hegemony and infallibility of the human power to control the natural world’ (Throop 2000: 84; for a response to Katz, see Andrew Light in Throop 2000: 95–111). The outcome is that restoration is impossible, if restoration is intended to restore intrinsic natural value.

I call these critics the ‘genesis theorists’ because they advocate the following three propositions: 1) only biological processes uninterrupted by human intervention possess natural value, 2) understanding these biological processes requires knowledge of their natural historical development and origin, 3) wilderness and wildness are synonymous – the inseparability thesis (Chapman 2004). The genesis theorists object to restoration because the restored environment no longer possesses natural value. It lacks two essential elements: the undisturbed

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natural processes that produced and sustain the environment, and an appreciation of the intrinsic value of nature (Pojman 2000: 301). Taken together the three propositions advocated by the genesis theorists generate a paradox for restoration.

My argument proceeds in three stages. After first briefly describing the paradox of restoration, I then develop the distinction between wilderness and wildness in the writings of Thoreau and Leopold. Finally, I conclude with some practical applications of the distinction.

### STAGE I: THE PARADOX OF RESTORATION OR RESTORING NATURAL VALUE

We have reached a paradoxical situation that we can save some of the wilderness experience only by introducing into the wild areas the order and discipline that is becoming increasingly objectionable in civilised life. (Dubos 1980: 138)

Rolston shows no indication that he recognises a distinction between wilderness (W1) and wildness (W2). Speaking of human conscience and obligation he remarks, 'And conscience also generates duty to respect wild nature at some times and places enough to leave it untrammelled' (Rolston 1994: 186). Equating wild nature with the untrammelled is the same as designating it wilderness. Further on in the same article he states 'civilisation is the antithesis of wilderness'. For Rolston there is no place for wildness outside of wilderness, wild nature is found only in the pristine precincts of nature (1991: 371). Katz understands the 'natural' as 'independent of a *certain type* of human activity ... The "natural", then is a term we use to designate objects and *processes* that exist as far as possible from human manipulation and control' (Throop 2000: 91, italics added). Although Katz, citing Andrew Brennan, attributes wildness to certain types of human action like natural childbirth, 'Childbirth is an especially striking example of the wildness within us...', he includes this activity '...because it is independent of a certain type of human activity, actions designed to control or to manipulate natural processes'. Undoubtedly, Katz might have listed many other human actions expressing wildness – sneezing, hair growth – all those bodily functions we have no conscious control over. But by placing them beyond human intentional action they are subject to the same criterion as wilderness, thus there is no real distinction between the two. Following Rolston and Katz, Donald Waller places natural value within the processes that sustain wildness, 'For an organism to be considered wild ... it must exist in an ecological context essentially similar to the one its ancestors evolved in' (Waller 1998: 547). Waller identifies wildness with the continuous evolutionary and ecological processes that provide a causal connection with the origin of the system, which is another way of describing wilderness. In other words, the criteria for wildness

and wilderness end up the same. Thus, restoration projects inevitably produce artificiality (Throop 2000: 71–3).<sup>3</sup>

A principle goal of restoration projects is the rehabilitation of ecological systems that have been disturbed by human intervention. It is argued that the real difference between disturbed and predisturbed states is that the former lack an essential component, natural value or wildness; prior to the disturbance the system was ‘more’ wild. As we saw above, Rolston et al. identify wildness with just those natural uninterrupted historical/biological processes. Since the only area where historical continuity remains intact is the wilderness, wilderness is equated with wildness. Yet if wildness is the missing ingredient – the lack of which produces artefacts – then how can restoration projects restore wildness? Throop, commenting on this problem states, ‘Restoration may recover lost value by returning some of the original wildness. For example, a Yellowstone with restored wolves may be wilder than it was without them. This justification confronts a serious paradox, however. “Wildness” is typically defined in terms of lack of human alteration. If so, how can additional human alteration of an ecosystem involved in restoration enhance wildness?’ (Throop 2000: 15). But, if it turns out that W1 is not synonymous with W2, then we avoid the apparent paradox behind the idea of restoring wildness.

## STAGE II: THE DISTINCTION BETWEEN WILDERNESS AND WILDNESS

We who are born into the world’s artificial system can never adequately know how little in our present state and circumstances is natural, and how much is merely the interpolation of the perverted mind and heart of man. (Nathaniel Hawthorne, *The New Adam and Eve*)

It will be argued that among the advantages of separating wilderness from wildness is the elimination of a troublesome dualism between nature and culture. The principle gain, then, of considering wilderness separate from wildness is the promise of settling human culture *within* nature without significantly diminishing the value of either; culture is a part of the natural, the two share the same natural factor and are ontologically equivalent in this regard. (This topic is discussed further in section III.)

Wilderness is the easier of the two to define. The definition of wilderness as it appears in the Wilderness Act of 1964 is fine for our purposes, ‘A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognised as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.’ The definition of wildness, on the other hand, presents a more challenging task. It is strategically simpler to provide examples of the things wildness might be, but is

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not. Wildness is not the unsettled chaos of a crowd transformed into a mob, or a fraternity party out of control; it is not radical unpredictability, or an essential attribute of the uncivilised; it is not a typical session of the US Congress; it is not a negative quality attached to excessive emotional response, and it is not, merely, a distancing from the ordinary or commonplace. These are samples of the kinds of things wildness is not! But we wish to know what wildness is. Thoreau, more than any other close observer of nature, comes closest to providing a positive definition of wildness and for that reason he will act as our initial guide into the precincts of wildness. (As we proceed it is important to keep in mind that wildness, like wilderness, is unintelligible within the context of the merely artefactual; it requires connection with nature and the presence of life [Aitken 2004: 79]).

Henry David Thoreau enriched American literature with the phrase, 'In Wildness is the preservation of the world' (Sattelmeyer 1908: 112). He did not say, neither is there any evidence to suggest he meant to say, that wildness and wilderness are synonymous; in fact the evidence is quite the contrary (see Walls 2000, Schneider 2000, Nelson 2000 and Bennett 2000). Unfortunately too many environmentalists, ecologists and philosophers continue to overlook this distinction. (I suspect that historical inertia is partly responsible for their oversight.)<sup>4</sup>

Thoreau experienced and laboured to express wildness as a positive quality inflected, in varying degrees, by all biological life (aberrations/mutations included). For this reason, Thoreau considered wildness a central factor in the creation and preservation of civilisation: 'Every wild apple shrub excites our expectations thus, somewhat as every child. It is, perhaps, a prince in disguise. What a lesson to man! ... Poets and philosophers and statesman thus spring up in the country pastures, and outlast the hosts of unoriginal men' (Sattelmeyer 1980: 195). Wildness is a catalyst for originality; encounters with it are inspirational and culturally enriching. Jane Bennett views Thoreau's wildness as a source for character and culture formation, 'The wildness of anything consists in its capacity to inspire extraordinary experience, startling metaphors, and unsettling thoughts' (Bennett 2000: 19). all of which are vital aspects for the development of imagination and, consequently, of character and culture formation. We encounter this type of development when Thoreau speculates on the 'new' American character.

In acknowledging the early Puritan 'errand into the wilderness' and its eventual transformation into manifest destiny, Thoreau includes wildness as a condition for the possibility of the 'new Adam': 'I believe that Adam in paradise was not so favourably situated on the whole as is the backwoodsman in America ... it yet remains to be seen how the western Adam, Adam in the wilderness, will turn out ...' (Writings/Journals, 3: 187). Thoreau identifies traits of the would-be new Adam and in this particular case it is an epistemological procedure for 'fronting' wildness (the source of the new Adam's uniqueness), '[it is] only

necessary to behold ... the least fact or phenomenon, however familiar, from a point a hair's breadth aside from our habitual path or route, to be overcome, enchanted by its beauty and significance' (quoted in Bennett 2000: 88). It is from this vantage point that the new Adam perceives the world and undertakes the creation of a new one.

At times it seems Thoreau is expressing a strand of nineteenth century sublimity with his notion of wildness. Confrontations ('frontings') with the wild reveal unbounded, limitless life with an incalculable potential for 'creative' complexity, mediated only by the limitations of imagination. Bennett elaborates on this strand of the sublime, '... the wild speaks to the idea that there always remains a surplus that escapes our categories and organisational practices, *even as it is generated by them*' (Bennett 2000: xxi, italics added). There is also an aspect of the uncanny in Thoreau's wildness that strengthens the connection with the sublime. Uncanny experiences are clusters of the familiar and the unknown, lurking in the shadows of an epiphany, pulling us from the comfort of our 'habitual path' (Bennett 2000: 110–13). The irony is that feelings of the uncanny are often produced by the very 'organisational practices' that can restrict access to the wild. The idea that 'organisational practices' (cultural institutions) can be a catalyst for wildness is Thoreau's formula for explaining the (intrinsic) relationship between culture and nature.<sup>5</sup>

Contact with wildness provides the inspiration for the conceptual structure out of which civilisational and cultural change occur. Culture infused with wildness reveals new and unforeseen possibilities, thus making the world larger, extending opportunities for new and ongoing 'extraordinary experiences', which, at the same time, allows for greater access to wildness. Translating encounters with wildness into cultural forms releases latent potentialities that make available materials for the evolution of culture. Thoreau acknowledges the importance of wildness for sustaining human constructions: 'The founders of every state which has risen to eminence have drawn their nourishment and vigour from a similar *wild* source' (Sattelmeyer 1980: 112–13, also see p. 177, italics added). This is an expression of the creative dynamic between civilisation and nature, and the only reliable way to express this is through sporadic experiences of wildness.<sup>6</sup> Thoreau reminds us of the potential for intimacy and of a reciprocal connection between human history and natural history – civilisations are founded on original ideas or attentive inflections on previous ideas (a type of redemptive remembering) and wildness is a source of these formative ideas. These 'unsettled thoughts' are the material for the creation of cultures; in revisiting this recursive connection we enact the on-going drama of civilisational change.<sup>7</sup> Thoreau's project was the valorisation of wildness. Others would follow, testing and elaborating Thoreau's distinction between wilderness and wildness, most notably Aldo Leopold.<sup>8</sup>

In the fall and winter of 1913–1914 Aldo Leopold was at his family home in Burlington, Iowa recuperating from a near fatal encounter with Bright's disease

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(nephritis). Physically weakened but mentally active, Leopold read extensively and added considerably to his common book of quotations. One of the many entries at this time is a quote from Thoreau's essay 'Walking', 'In Wildness is the preservation of the world' (Lorbiecki 1996: 53–63).<sup>9</sup> The spirit of this trenchant phrase resonates throughout Leopold's writings. In an early essay on wilderness he apologetically admits, 'Development and forest destruction went hand in hand; we therefore adopted the fallacy that they were synonymous. A stump was our symbol of progress. We have since learned, with some pain, that extensive forests are not only compatible with civilisation, *but absolutely essential to its highest development*' (Leopold 1991: 49; italics added). (The resemblance to Thoreau's reciprocal and dynamical structure of wildness is clearly evident here.) Claiming there is a necessary connection between cultural formation and 'extensive forests' (wilderness), Leopold is on his way toward separating wilderness from wildness.

Leopold's idea of land use was revolutionary in his time. The idea that wilderness can be understood as a valuable form of land *use* placed conservation within the larger project of preservation. This realignment shifts the focal point of value from a detached alien wilderness where humans have no critical connection with dynamic natural processes, to human engagement *in* the natural world. Leopold reminds us that *conservation is the preservation of natural processes* (inherent biological activities often associated with rejuvenation) thereby closing that gap between nature and culture – conservation is often related exclusively to human use value, while preservation is thought to be an act of duty or benevolence toward non-human nature. Speaking of land health, Leopold remarks, 'Health is the capacity of the land for self-renewal. *Conservation* is our effort to understand and *preserve* this capacity' (Leopold 221, italics added). It is important to notice that by preserving biological processes and switching value from conservation to preservation of natural capacities, Leopold rejects the genesis position that there is a historical breach.

The penultimate goal is the preservation of natural value, the ultimate goal the creation of a dynamic ongoing process of overlapping confrontations with wildness – the source of any sustainable civilisation. Leopold realised well that certain human interactions with the land are not only acceptable and desirable but also necessary, and restoration is one of these activities: '... we can conceive of a *wild* area which, if properly administered, could be travelled indefinitely and still be as good as ever' (Leopold 1991: 135, italics added). This is not so much an instance of restoration as it is of preservation through attentive management, but it demonstrates that restoration is a viable alternative when *proper administration* is absent. *Proper administration* would be the type that doesn't overwhelm nature, but continues to allow for expressions of wildness. Gill Aitken put it this way, 'But wildness is not compatible with any, or all, human artefact. There is a point where artefact eclipses nature and where wildness, as it were, runs out... Sizewell nuclear power plant in Suffolk may be one such



example' (Aitken 2004: 79). Aitken is reporting a tension in demarcation that is reinforced by the growing evidence that before the arrival of the Europeans, the Americas had been developed – in the Baconian sense – by numerous cultures and the Puritan encounter with wilderness (for example) was more likely a confrontation with domesticity, subtle, but nonetheless a product of Native American culture.<sup>10</sup>

In an early essay on wilderness, Leopold reminds us 'Wilderness was never a homogeneous raw material. It was very diverse, and the resulting *artefacts* are very diverse. These differences in the end-product are known as cultures. The rich diversity of the world's cultures reflects a corresponding diversity in the *wilds* that gave them birth' (Leopold 1970: 188, italics added). Leopold reaffirms this essential connection between nature and culture in an earlier version of 'The Land Ethic', 'Civilisation is not, as they often assume, the enslavement of a stable and constant earth. It is a state of *mutual and interdependent cooperation* between human animals, other animals, plants, and soils, which may be disrupted at any moment by the failure of any of them' (Leopold 1991: 183). Compare this to Thoreau's view of the beginnings of civilisation, 'Where the first inroad has been made, a few acres levelled, and a few houses erected, the forest looks wilder than ever. Left to herself, nature is always more or less civilised, and delights in a certain refinement' (Sattelmeyer 1980: 38–9); at this point, I believe, we are witnessing Leopold's embrace of wildness as distinct from wilderness. Nature's refining element is human wildness and human civilisations are a product of exchanges with nature's wildness.

In spirit Leopold was an erstwhile restorationist. For him land management is an activity that perpetuates wildness and from the interaction between management (utility) and wildness we create culture. Leopold describes wilderness as a source for value, '... wilderness is a resource, not only in the physical sense of the raw materials it contains, but also in the sense of a distinctive environment which may, if rightly used, yield certain social values' (Leopold 1991: 135). Although Leopold does not explicitly state that wilderness and wildness are separate (or separable), his depiction of wilderness above is too narrow to contain the social values required to create civilisations; wildness is more capacious and better fits his pliant anthropocentrism, thus the claim that Leopold distinguishes wilderness from wildness is a reasonable one.<sup>11</sup>

Like the Chinese scholar visiting Cambridge University on a tour given by Bertrand Russell who, after seeing the libraries, lecture halls, offices, residences, etc. shyly inquired, 'but where is the university?' the reader might respond in a similar manner, 'fine tour; we have seen many examples of wildness but "what is wildness?"' It is now time to attempt a workable definition of wildness, keeping in mind the formidable obstacles of such an undertaking. Addressing one of these obstacles – a primary one at that – Aitken states, '... the notion of wildness is not amenable to being precisely defined, because it is an *experiential* phenomenon' (Aitken 2004: 78). And Thoreau, at times, bemoaned the difficulty of adequately

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articulating experience of wildness, 'I do not know of any poetry to quote which adequately expresses this yearning for the Wild ... Mythology comes nearer to it than anything' (Sattlemeyer 1980: 120). Also, Jane Bennett concludes that wildness is not the kind of thing captured by definition; its synthetic quality leaves it terminally open-ended. She likens it to a 'shadow of humanity's brave but also relentless quest to domesticate life' (Bennett 2000: 35). This said, here is a list of fundamental characteristics of wildness useful, I believe, in coaxing a coherent albeit provisional definition for wildness.

Wildness has been portrayed as a positive quality possessed by all natural objects, as a catalyst for inspiration and creativity, as a source for character formation and virtue acquisition<sup>12</sup> and as a source for essential components for designing and sustaining civilisation. Wildness defies rigid analytic assessment; it is incapable of categorisation without remainder, suggesting unlimited potentiality. This surplus is implied in Max Oelschlaeger's claim that wildness is an antidote for our ossified cultural categories, 'Wildness represents the possibility of renewal, of vigorous action, of expansion, of chaos, of chaos out of which new order [cultural change]...' (Jensen 2002: 213). There is an irreducible element to wildness; whereas wilderness can be reduced acre-by-acre (see Pollan 2001: 185). Its convoluted connections are necessarily relational, reciprocal and recursive, suggesting intrinsic interdependency.<sup>13</sup> Finally, there is an element of the sublime in wildness, since, for example, encounters with it invoke uncanny feelings.<sup>14</sup> As a working definition – an attempt to incorporate the above characteristics – I offer the following: 'Wildness is a natural qualitative source for endlessly adaptive metaphors portraying dynamic, unlimited relationships between nature and culture.'

Perhaps a few instances from different and miscellaneous sources will help clarify what has been said thus far about wildness. As poets and prophets counsel: consider the wildflower.<sup>15</sup> Wildflowers are the *source* of all cultivated garden flowers. Every garden flower was taken originally from the wild. Wildflowers continue to play a critical role, 'Wildflowers are important for civilisation's future, because they constitute the only vast reservoir of genetic material not largely in our economically useful plants' (Eblen and Eblen 1994: 820–1). In the same tone Michael Pollan, considering the qualities of a near ideal world, remarks 'The next best world...is the one that preserves the quality of wildness itself, if only because it is upon wildness – of all things! – that domestication depends' (Pollan 2001: 57). William Cronon continues this panegyric to (Thoreauvian) wildness, '... when I think of the times I myself have come closest to experiencing what I might call the sacred in nature, I often find myself remembering wild places much closer to home ... for *wildness* (as opposed to wilderness) can be found anywhere: in the seemingly tame fields and woodlots of Massachusetts ... [when] wildness can stop being (just) out there and start being (also) in here ... we can get on with the unending task ... to live rightly in the world ...' (Cronon 1996: 88–90).

A final instance for consideration: commenting on his *Symphony No. 3 in D minor*, Gustav Mahler had this to say to a music critic, 'I find it quite strange that people talking about nature only make mention of flowers, birds, and fresh air. But nobody seems to know Pan, the god Dionysos. Nature is able to *show* all those phenomena, both pleasant and horrible, and I wanted to put these things in a kind of evolutionary development in my work' (*italics added*). Is Mahler's Pan, Thoreau's wildness? I believe a case can be made that Mahler shared a vision of nature not unlike both Thoreau and Leopold, giving expression to 'extraordinary' and 'unsettling' moments with his music.

Should doubts remain that there is a critical distinction between wilderness and wildness my response is: this is only a beginning, no doubt more serious work is needed to catalogue those characteristics of wildness that distinguish it from wilderness. For the present we can cautiously advance with our inquiry into wildness encouraged that there is at least one important difference and it is one of scope: wildness has a broader application than wilderness, one that accommodates *select* human impacts, and this distinction has significant consequences for the conservation/preservation/restoration debate.

### STAGE III: REPRIEVE FROM THE PARADOX OF RESTORATION

It [land] is, or should be aesthetic as well...[then] He will see the beauty, as well as the utility, of the whole, and know that the two cannot be separated (Leopold 1991: 337)

As Thoreau remarked, restoration is an instance of a 'certain refinement' ('like directing the sunbeams') and as Leopold would have it, by preserving and when necessary restoring natural processes rather than precise bio-historical structures from an earlier time (which is impossible), we avoid the charge of *recreation*, *replication* or *duplication* of natural value along with the outlandish claim to have improved on nature's mechanics; we are not engaged in the manufacture of artefacts as the genesis theorists claim. What was argued is that restoration projects do not eliminate natural value since natural value is inherent in wildness and wildness, unlike wilderness, accommodates restricted human impact.

By identifying natural value with wildness we begin to realise a necessary *membership* with the non-human world not unlike Leopold's biotic community. Wildness is a necessary component of civilisation building and in all likelihood by preserving and respecting it we are pledging to act appropriately toward the natural world. Recall preservation is a reciprocal association: nature provides the stuff, which is transformed into new cultural expressions of wildness, which in turn furthers our contact with wildness through attentive observation. As Rene Dubos observed, '...the wooing of the Earth will have a lastingly successful outcome only if we create conditions in which both humankind and the Earth

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retain the essence of their *wildness*' (Dubos 1980: 159, italics added). The 'successful outcome' Dubos refers to is made possible by dismantling the apparent division between nature and culture. Once this dualism is removed – by making a distinction between W1 and W2 – the foundation for a workable environmental ethic is more easily realised.

Wildness, as described here, reveals a weakness in the alleged gap between nature and culture. Thoreau's 'unsettled thoughts' arise under circumstances where a hyperconscious self confronts an 'otherness' that is, at the *same* time, an 'uncanny' likeness (affinity) – in the Freudian sense – suggesting that the grounds for a nature-culture divide are more deceptive than we otherwise realised. Both Thoreau and Leopold avoid a facile identity between nature and culture by accepting the limitations of science, Thoreau embracing a 'higher law' and Leopold accepting the unlimited complexity of the nature world that provides the material for his 'land pyramid', which boldly confronts the limitations of the science of his day (and ours).<sup>16</sup> Commenting on the familiar disorientation that accompanies encounters of wildness, Pollan, echoing Mahler, invokes a bacchanalian image of unity between nature and culture; '... marrying the wildest fruits of nature to the various desires of culture' (Pollan 2001: 56). And Wendell Berry offers a converse corollary to Thoreau's claim that wildness preserves civilisation, 'In human culture is the preservation of wildness' (Berry 1987). These insights present sufficient testimony for the credibility of a real distinction between W1 and W2, failing which we are left with either a full-blown ontological dualism or the claim that differences between nature and culture are one of degree only, but by degrees so far removed from the tug of the natural that we approach a post-evolutionary position (Rolston 1991: 370–1).

A recurring concern among environmentalists and policy makers alike, is the fear that once restoration becomes accepted as a viable practice we will be besieged by miners, agribusiness, land developers, etc. assuring us that once they have extracted (exploited) the resources provided by nature-as-resource there is no need to worry: it can be restored to its original state, nature-as-source, preserving the natural value of the system. Elliot provides a fitting case for consideration. A mining company would like to mine for 'rutile' on a healthy dune beach; the nearby residents are rightfully concerned. 'The company goes on to argue that any loss of value is merely temporary and that the full value will in fact be restored. In other words they are claiming that the destruction of what has value is compensated for by the later creation (recreation) of something of equal value' (Throop 2000: 71). I don't share these concerns about the inevitable abuse of restoration policy.

The outline of restoration presented here would, in all likelihood, prohibit activities that destroy or seriously diminish (even if only temporarily) those ecological processes responsible for showing wildness and, presumably, many of the invasive activities mentioned above fall into that category, especially those based on a belief in the necessity for economic growth. Restoration, in

our sense, is not for the sake of economic growth; it is justified for the development of economies of scale and cultural development.<sup>17</sup> (I hope it is obvious that economic growth is not equivalent to cultural development.) By separating wilderness from wildness a place is made for tutored human intervention that does not diminish or destroy natural value. We claim a relationship to nature where elemental interdependence is the operational principle along with all that it entails.

The conflict between preservation and restoration is not merely philosophical (in the academic sense) but has far reaching consequences for environmental policy. Should the distinction between wilderness and wildness hold, as I think it will, the contours of assessment change dramatically; human action now belongs in the context of the natural. Nature and culture overlap – connected by wildness – in a reciprocal dynamic where the latent potentialities of both are connected and realised. As cultures evolve new values emerge, values that allow greater access to wildness increasing its domain and influence. Nature and culture are connected intrinsically, thus natural value is continuous through anthropogenic change.

#### NOTES

A version of this paper with a slightly different title 'Environmental Restoration Restored' was presented at the Natural City Symposium, University of Toronto, 23–25 June 2004.

<sup>1</sup> 'The Natural City', a symposium sponsored by: The University of Toronto's Division of the Environment, Institute for Environmental Studies, and The World Society for Ekistics, University of Toronto, 23–25 June 2004.

<sup>2</sup> We can describe this difference using classical rhetorical categories: *synecdoche* – a figure of speech in which a part stands for the whole. In this case wilderness the part (species) stands for wildness the whole (genus) – also see *metonymy*. (I discuss this elsewhere, Chapman 2004: 64–7.)

<sup>3</sup> Robert Elliot recommends that, 'The environmentalist needs to appeal to some feature which cannot be replicated as a source of some part of a natural area's value ... (what) I have in mind will make valuation depend, in part, on the presence of properties which cannot survive the disruptive-restoration process' (Throop 2000: 72–3). It is my contention that wildness is the feature Elliot is looking for.

<sup>4</sup> The conflation of the two is so ingrained in the American psyche that Thoreau's poignant phrase 'In Wildness is the preservation of the world' became one of the most frequently misquoted and misinterpreted lines in American literature. (The misquote reads 'In Wilderness is the preservation of the world'.) Regrettably the trend continues. The author of a popular book about the Hudson River misquotes Thoreau when, in the beginning of the second chapter he writes, 'In Wilderness is the preservation of the world' (Mylod 1969: 22). Jack Turner recounts a recent visit to Point Reyes National Seashore where, on a plaque, Thoreau is misquoted in the above manner (Turner 1998: 617). And regrettably

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(this shows how deeply embedded this error is) in a recent introduction to *Walden* the author discussing Thoreau's vision of wildness quotes Thoreau in the following manner, "I love the wild no less than the good", and "in his essay on walking: In Wilderness is the preservation of the world" (Hoagland 1991: XV). There are too many examples of this confusion to list them all; this should suffice to establish the point.

<sup>5</sup> This 'formula' can be presented through the notion of a heteroverse. The sheer and unbounded diversity of nature revealed through encounters with the wild cannot be properly contained in the idea of a universe. Bennett casts for a more accommodating term to describe Thoreau's world and comes up with 'heteroverse'. 'Insofar as the *uni* in universe distracts from Thoreau's emphasis on the diversity of Nature, it is an unfortunate choice of term. *Heteroverse* might be a better word, suggesting both how heterogeneous elements intersect or influence one another and how this ensemble of intersections does not form a unified or self-sufficient whole. It may also, through the idea of *verse*, convey the sublime character of this dissonant combination' (Bennett 2000: 53).

<sup>6</sup> When Thoreau speaks of moral reform as an effort to throw off sleep, he remarks, 'The millions are awake enough for physical labour; but only one in a million is awake enough for effective intellectual exertion, only one in a hundred millions to a poetic or divine life. To be awake is to be alive. I have never yet met a man who was quite awake. How could I have looked him in the face?' (Thoreau 1854: 84-5). Annie Dillard's encounter with a live weasel evokes a similar response, 'The weasel was stunned ... I was stunned ... Our eyes locked, and someone threw away the key ... if you or I looked at each other that way, our skulls would split and drop off our shoulders ...' (Dillard 1982). I believe both Thoreau and Dillard are expressing the awesome quality of wildness.

<sup>7</sup> Incidentally, Rolston supports this position acknowledging the need for nature in the creation of cultures, 'Wild nature has a kind of integrity; it is creation itself and contact with it is re-creating...because we encounter our sources, beyond resources' (Rolston 1994: 15).

<sup>8</sup> Others have questioned the validity of the inseparability thesis; Rene Dubos (1980), William Cronon (1996), Robin Attfield (1994), Jane Bennett (2000), Mary Midgley (2001) are examples.

<sup>9</sup> Among the list of other notables Leopold read during his lengthy recovery are: Cicero, Epicurus, Voltaire, John Stuart Mill, John Muir, John Burroughs, Liberty Hyde Bailey and Lao-Tzu (Lorbiecki 1996: 62).

<sup>10</sup> Charles Mann, studying the demographics of the Americas before 1492 remarks, 'Like people everywhere, Indians survived by cleverly exploiting their environment. Europeans tended to manage land by breaking it into fragments for farmers and herders. Indians often worked on such a grand scale that the scope of their ambition can be hard to grasp. They created small plots, as Europeans did (about 1.5 million acres of terraces still exist in the Peruvian Andes), but they also reshaped entire landscapes to suit their purposes' (Mann 2002). We still call these sedulously carved landscapes wild; the Amazon is a case in point. Thousands of years of human activity pre-1492 shaped what today we call the Amazon jungle (see Mann 2002).

<sup>11</sup> Aesthetic value also plays an important role in Leopold's conservation system. Sharply critical of the common concept of land value as exclusively economic, Leopold remarks, 'It [land] is, or should be aesthetic as well'. Considered in this way beauty and utility are compatible, 'He will see the beauty, as well as the utility, of the whole, and know that the two cannot be separated' (Leopold 1991: 337). By joining utility and beauty

(axiological components) Leopold finds yet another way to express the separability thesis. Utility is often thought of as inimical to preservation, whereas beauty is often justification for preservation.

<sup>12</sup> In summing up the many aspects of wildness, Jane Bennett concludes that, 'Wildness is the condition for the possibility of the new Adam' (Bennett 2000: 114). This vision of the new Adam as the founder of a new western civilisation includes all the aspects of wildness delineated above.

<sup>13</sup> Aitken includes 'systems of relationship' as one of the necessary conditions for wildness. 'In order for wildness to be experienced, the living entities must be part of a system of relationships ... Systems of relationship are important for experiencing wildness because it is only when these are in operation that wild entities can reach their full potential' (Aitken 2004: 79).

<sup>14</sup> Sigmund Freud's definition of 'uncanny' fits well as an aspect of the sublime: '... that class of the terrifying which leads back to something long known to us, once very familiar' (Freud 1919: 370).

<sup>15</sup> I owe the suggestion to use the wildflower as an insight into wildness from an anonymous reviewer for *Environmental Values*.

<sup>16</sup> When applying for membership in the Association for the Advancement of Science in 1853, Thoreau declined to complete the application, 'I felt that it would be to make myself a laughing-stock of the scientific community to describe to them that branch of science which especially interests me, inasmuch as they do not believe in a science which deals with the *higher law*' (Sattelmeyer 1980: xxi–xxii, italics added). Daniel Botkin recognises and applauds Thoreau's non-traditional view of science, 'Thoreau... was able to make correct use of science while appreciating both the spiritual and physical qualities of nature' (Botkin 2001: 86). Likewise, Leopold understood the inherent limitations of the life-sciences, 'The ordinary citizen today assumes that science knows what makes the community clock tick; the scientist is equally sure that he does not' (Leopold 1970: 205).

<sup>17</sup> Pickett and Ostfeld share this view, 'For all its scientific intrigue and poetic beauty, the flux of nature is a dangerous metaphor. The metaphor and underlying ecological paradigm may suggest to the thoughtless or the greedy that since flux is a fundamental part of the natural world, any human-caused flux is justifiable. Such an inference is wrong because the flux in the natural world has severe limits ... problematic human changes or fluxes are those that are beyond the limits of physiology to tolerate, history to be prepared for, or evolution to react to. Two characteristics of a human-induced flux would suggest that it would be excessive: fast rate and large spatial extent.'

## REFERENCES

- Aitken, Gill. 2004. *A New Approach to Conservation: The Importance of the Individual through Wildlife Rehabilitation*. Aldershot: Ashgate Publishing Limited.
- Attfield, Robin. 2000. 'Rehabilitating Nature and Making Nature Habitable', in W. Throop (ed.), *Environmental Restoration: Ethics, Theory and Practice* (Amherst, NY: Humanity Books), pp. 113–26. Originally published in Robin Attfield and A. Belsey (eds) *Philosophy and the Natural Environment* (Cambridge University Press, 1994).

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- Berry, Wendell. 1987. *Home Economics*. San Francisco: North Point.
- Bennett, Jane. 2000. *Thoreau's Nature: Ethics, Politics, and the Wild* (Modernity and Modern Thought, vol. 7). Totowa, NJ: Rowman & Littlefield – AltaMira Press.
- Botkin, Daniel. 2001. *No Man's Garden: Thoreau and a New Vision for Civilization and Nature*. Washington DC: Island Press/Shearwater Book.
- Callicott, J. Baird. 1991. 'The Wilderness Idea Revisited: The Sustainable Development Alternative', *The Environmental Professional* **13**: 235–47.
- Callicott, J. Baird and Michael Nelson, eds. 1998 *The New Wilderness Debate*. Athens, GA: University of Georgia Press.
- Chapman, Robert. 2004. 'Crowded Solitude: Thoreau on Wildness', *Journal of Environmental Philosophy* **1**: 58–72.
- Cronon, William. 1996. 'The Trouble with Wilderness or Getting Back to the Wrong Nature', in William Cronon (ed.), *Uncommon Ground: Rethinking the Human Place in Nature*. New York: Norton.
- Dillard, Annie. 1982. 'Living Like Weasels', in *Teaching a Stone to Talk*. New York: Harper & Row.
- Dubos, Rene. 1980. *The Wooing of the Earth*. New York: Charles Scribner's Sons.
- Eblen, Ruth and William Eblen, eds. 1994. *The Encyclopedia of the Environment*. New York: Houghton Mifflin Co. in cooperation with the Rene Dubos Center for Human Environments.
- Elliot, Robert. 2000. 'Faking Nature', in W. Throop (ed.), *Environmental Restoration: Ethics, Theory and Practice* (Amherst, NY: Humanity Books), pp. 71–82. Originally published in *Inquiry* **25** (1982): 81–93.
- Freud, Sigmund. 1919. 'The Uncanny', in *Papers on Applied Psychoanalysis*, Vol. 4 of *Collected Papers*, trans. Joan Riviere (Toronto: Clarke, Irwin & Co., Ltd., 1956).
- Hoagland, Edward. 1991. *Walden, or Life in the Woods*. New York: Vintage Books.
- Jensen, Derrick. 2002. Interview with Max Oelshlaeger, in *Listening to the Land: Conversations about Nature, Culture, and Eros*. New York: Context Books.
- Katz, Eric. 2000. 'The Big Lie: Human Restoration of Nature', in W. Throop (ed.), *Environmental Restoration: Ethics, Theory and Practice* (Amherst, NY: Humanity Books), pp. 83–93.
- Leopold, Aldo. 1970. *A Sand County Almanac*. New York: Oxford University Press.
- Leopold, Aldo. 1991. *The River of the Mother of God and Other Essays by Aldo Leopold*, ed. Susan L. Flader and J. Baird Callicott. Madison: University of Wisconsin Press.
- Light, Andrew. 2000. 'Restoration or Domination? A Reply to Katz', in W. Throop (ed.), *Environmental Restoration: Ethics, Theory and Practice* (Amherst, NY: Humanity Books).
- Lorbiecki, MaryBeth. 1996. *Aldo Leopold: A Fierce Green Fire*. Oxford University Press.
- Mann, Charles C. 2002. '1491' *The Atlantic Monthly*, **289**(3).
- Midgley, Mary. 2001. 'The Problem of Living with Wildness', in Virginia A. Sharpe, Bryan Norton and Strachan Donnelley (eds), *Wolves and Human Communities: Biology, Politics, and Ethics* (Covelo, CA: Island Press).



- Mylod, John. 1969. *Biography of a River: The People and Legends of the Hudson Valley*. New York: Bonanza Books.
- Nelson, Barbara 'Barney'. 2000. 'Rustling Thoreau's Cattle: Wildness and Domesticity', in Richard J. Schneider (ed.), *Thoreau's Sense of Place* (University of Iowa Press), pp. 254–65.
- Pickett, S. and R. Ostfeld, 'The Shifting Paradigm in Ecology', in S. Pickett and R. Ostfeld (eds), *The Ecological Basis for Conservation: Heterogeneity, Ecosystems and Biodiversity* (New York: Chapman and Hall).
- Pojman, Louis P. 2000. *Global Environmental Ethics*. Mountain View, CA: Mayfield Publishing Company.
- Pollan, Michael. 2001. *The Botany of Desire: A Plant's-Eye View of the World*. New York: Random House.
- Rolston, Holmes III. 1994. *Conserving Natural Value*. New York: Columbia University Press.
- Rolston, Holmes III. 1991. 'The Wilderness Idea Reaffirmed', *The Environmental Professional* **13**, 370–7.
- Sattelmeyer, Robert, ed. 1980. *The Natural History Essays*. Peregrine Smith Books.
- Schneider, Richard J., ed. 2000. *Thoreau's Sense of Place*. University of Iowa Press.
- Thoreau, Henry David. [1849]. *A Week on the Concord and Merrimack River*. Harmondsworth: Penguin Books, 1998.
- Thoreau, Henry David. [1854]. *Walden*, introduction by Bill McKibben. Beacon Press, 2004.
- Thoreau, Henry David. 1980. *The Natural History Essays*. Peregrine Smith Books.
- Thoreau, Henry David. 1949. *The Journal of Henry David Thoreau*, Vols. 1–14, ed. Bradford Torrey and Francis H. Allen. Boston: Houghton Mifflin.
- Thoreau, Henry David. 1973. *The Writings of Henry David Thoreau: Reform Papers*, ed. Wendall Glick. Princeton University Press.
- Thoreau, Henry David. 1990. *The Writings of Henry David Thoreau: Journal*, vol. 3, ed. John C. Broderick. Princeton University Press.
- Throop, William, ed. 2000. *Environmental Restoration: Ethics, Theory and Practice*. Amherst, NY: Humanity Books.
- Turner, Jack. 1998. Cited in J. Baird Callicott and Michael Nelson (eds), *The New Wilderness Debate* (Athens, GA: University of Georgia Press).
- Waller, Donald M. 1998. 'Getting Back to the Right Nature: A Reply to Cronon's "The Trouble with Wilderness"', in J. Baird Callicott and Michael Nelson (eds), *The New Wilderness Debate* (Athens, GA: University of Georgia Press), pp. 540–67.
- Walls, Laura Dassow. 2000. 'Believing in Nature: Wilderness and Wildness in Thoreauvian Science', in Richard J. Schneider (ed.), *Thoreau's Sense of Place* (University of Iowa Press), pp. 15–27.
- Wilson, E.O. 1984. *Biophilia: The Human Bond with Other Species*. Cambridge, MA: Harvard University Press.