

## Kate Soper, Working Paper for Workshop 1

***This is a Working Paper. Before quoting, please obtain written permission from the author.***

*In this paper I shall outline three areas of debate about norms and values of particular relevance to environmental concerns and their communication, hopefully indicating in the process where philosophy can help to clarify, and maybe resolve, differences of approach. The first concerns ideas about Nature and their contribution to environmental thought and policy; the second has to do with posthumanist critiques in environmental studies; and the third with the ethical and/political framing of aesthetic responses to landscape/environment.*

### **I Nature: how useful a concept to environmentalism?**

It is difficult not to be struck today by the divergence of responses to the environmental impact of human industry and science. On the one hand, there is huge excitement about what is promised by advances in genetics and bio-engineering for the elimination of disease and/or the enhancement of human health/well-being. But there is also unprecedented unease about these new found powers to control and even create 'nature', and anxiety verging on panic about the ways in which environmental 'nature' is, or seems to be, spinning out of control because of anthropogenic climate change and its unpredictable character and consequences. Among the economists and planners, the optimism of the Eco-Modernisation camp, who insist that we can uncouple economic growth from environmental degradation, is matched by the scorn and pessimism of the No Growth camp, who are equally adamant that technical fixes cannot save the planet.<sup>1</sup>

There are comparable tensions about how we should talk about and relate to 'nature' in this context. Some of these were addressed in my *What is Nature?* which staged a critical confrontation between discourses endorsing 'nature' as an independent domain in need of protection and conservation, and the more 'nature-sceptical' set of discourses highlighting the cultural 'construction' of ideas of 'nature' and the misleading ideologies they reinforce (Soper, 1995). Since that time, some constructivists have gone on to argue that the concept of 'nature' is so unhelpful to thinking about environmental issues, that it should be excised altogether. Stephen Vogel, for example, has pointed out that if, as endorsers like Bill McKibben claim,<sup>2</sup> nature has come to an end, then defending it makes no more sense than defending the Holy Roman Empire... Moreover, Vogel claims, 'not only...might nature the thing have ended: the *concept* of "nature" might be such an ambiguous and problematic one, so prone to misunderstanding and so riddled with pitfalls,

---

<sup>1</sup> For some discussion of these issues, and a bibliography, see the recent pamphlet on the reasons for a Steady State economy at: [HTTP://STEADYSTATE.ORG/ENOUGH-IS-ENOUGH/](http://steadystate.org/enough-is-enough/), Cf. Goodland, R. and Daly, H. (1992)

<sup>2</sup> This is a thrust of Bill McKibben's argument about the 'end' of nature (MacKibben, 1990).

that its usefulness for a coherent environmental philosophy might be small indeed.' (Vogel, 2006). A comparable, though less coherently argued, case for doing ecology without 'Nature' has been made by Tim Morton (2007; 2010).

In contrast to these moves, however, we are also now seeing a kind of return to 'nature' in its older normative role: confronted with the prospects of planetary exhaustion or fears of the impact of technical advance on the ethics of human community, people are looking again to 'nature' to provide some kind of policing of human activity. And whereas the main challenge in recent years in the academy has been to the sexual or social 'violence' being done in the name of a norm of 'nature' (cf. Dollimore, 1991: 114-115; Soper, 1995: 119-148, esp. 145, note 2), today the concern is less to expose false forms of naturalisation than to discover whether 'nature' might still provide an ontological basis or ultimate court of appeal for condemning as 'unnatural' a range of existing practices both in everyday production and consumption and in science and genetics (Kaebnick, ed. forthcoming; Streiffer, 2003). To take but one example: underlying or complexly caught up in the more practical concerns about GM,<sup>3</sup> - and arguably strongly influencing the reception and interpretation placed on the data offered by scientists - has been an intuitive sense of the counter-naturality of the whole process: a questioning whether such developments are not a step too far in the manipulation of nature - and the notion of 'Frankenstein science' is here indicative.<sup>4</sup>

Although one can sympathise with the feelings behind it, this 'normative return' is clearly theoretically problematic. For on what grounds are we determining the 'naturalness' or otherwise of these new developments and how exactly, if at all, do they differ from earlier human constructions of, or interactions with, nature? In any case, why should the 'unnaturalness' of certain practices be any more grounds for opposing them than it is in the case, say, of art? GM and other advanced bio-technologies are plainly unnatural according to one of the commonest definitions of the natural (one often invoked by some ecological writers) - as that which humans have had no hand in creating. But then so, too, are most of our other practices, including many that have been generally welcomed as uncontroversially beneficial. So even if we were to agree to some criteria that allowed us to specify that certain applications of bio-technology are 'unnatural' (and, as indicated, this seems pretty unlikely) it is by no means clear that anything very much hangs thereby.

---

<sup>3</sup> Concerns, for example, about the success, utility and safety of GM: whether things would work out in the way claimed by the pro-GM scientists, whether GM production was expedient or necessary to achieve the ends proposed, and, perhaps, above all, whether it could be guaranteed to be safe in both human and ecological terms.

<sup>4</sup> Cf. The evidence cited by Kaebnick: 'Even among the wider public, surveys have reliably shown that a significant portion of the public finds them morally troubling (Hallman 2004, Marris 2002). In a poll conducted by the Pew Initiative on Food Biotechnology, two-thirds of respondents said they were "uncomfortable" about animal cloning even though less than half thought the products were unsafe (Pew Initiative on Food and Biotechnology 2005). A market research firm hired by a company that clones livestock reported that over a third of those it polled said they would not buy such products even when first told that the FDA was likely to declare them safe (Sosin and Richards 2005). Three-quarters of respondents to a poll paid for by the International Food Information Council said that they had an unfavorable impression of animal cloning (International Food Information Council 2005)' in 'Putting Concerns about Nature in Context: The Case of Agricultural Biotechnology' forthcoming in *Perspectives in Biology and Medicine*

On the other hand, against the type of 'constructivist' dismissal of 'nature' argued for by Vogel and Morton, I remain convinced of the need to draw a distinction between a 'realist' or theoretical concept of nature and other more phenomenological or normative concepts (Benton, 1989, 1992; Soper, 1995, pp. 149-176; 1996). Nature in this 'realist' sense refers us to structures and processes that are independent of human activity (in the sense that they are not humanly created), and whose forces and causal powers are the condition of, and constraint upon, any human practice, however ambitious. This is the nature without which there could be no bio-engineering, the nature by virtue of which there is a planet Mars artificially to 'terraform' in the first place. It is the 'nature' to whose laws we are always subject, even as we harness them to human purposes, and whose processes we can neither escape nor destroy.

Such a concept, I argued in *What is Nature?*, is indispensable to the coherence both of ecological discourses about the 'changing face of nature' conceived as a surface environment, and to any discourse about the genetically engineered or cultural 'construction' of human beings or their bodies. If those insisting that 'there is no nature' are denying its reality and specific determinations in this understanding, they are committed to an incoherent idealism. Moreover, even though the appeal to nature in some looser, more normative sense is theoretically vexed, it is difficult it is to keep it out of the picture altogether. Even those wanting to dismiss all reference to 'nature' often end up by invoking it implicitly. Vogel speaks of the 'correct' belief that the effects of human activity over the last two centuries have been 'baleful' and 'destructive' and refers to 'looming environmental disaster' (2006: 5; cf. 1996). Yet the reference in this vocabulary to biological imperatives for survival and minimal flourishing sits uneasily with his rejection of any appeal to nature. Tim Morton, one might add, also fails to explore the implications of his own normative discourse in that respect.

It remains true, however, that 'nature' can never provide an unchallengeable guide on how humans should live. In the case of the environment, realist nature will exercise an influence on what we do, or can even try to do, but it is we who have to decide what it is ethical to attempt within those limits. Likewise, as biological organisms, we have certain requirements or instinctual responses that we cannot resist (to breathe, take in food and drink, excrete, etc.), but beyond those, the area of reduced or under determination is very vast. Even in the case of such a 'basic' need as that for food, the individual can decide to resist it – and does so in cases of anorexia or voluntary fasting.

This emphasis on our biological 'under-determination' is at odds with the discourse of those greens who think environmental politics has more to do with correcting ideas about the nature of 'nature' than about revising ideas about 'progress', 'prosperity' and human flourishing. I have always argued, in fact that the current ecological situation is better illuminated not by reference to the intrinsic qualities of non-human nature nor by recalling us to our fundamental kinship with other living creatures, but by consideration of the fraught nature of our – distinctively human – condition as beings who, unlike other creatures, are driven by the urge to engage in a more than reproductive existence - to fulfil ourselves through dynamic and innovative forms of cultural transcendence and individualising self-expression. The key ecological

problem is whether we can find ways of living rich, complex, creative, non-repetitive lives without social injustice and without too much environmental damage. This is not about how better to 'respect' or 'get back to nature' (in the sense of reverting to tradition and a simpler way of life), but how to advance to a form of future that is both assertively human *and* ecologically benign. The focus, in short, should fall less on the adoption of the 'right' attitudes or ways of valuing nature, and more on the conditions of human fulfillment and how these can be secured in an ecologically sustainable mode. But clearly such an approach is rooted in commitments to human 'exceptionalism' of a kind challenged by recent 'posthumanist' ecologies, and I now turn to some reflections on the coherence of their challenge.

## **II Posthumanism: coherent frame for thinking about humans and others?**

Questions of a general kind about where to draw the lines of division between humans, animals and machines have a long history. But they are being posed today in a novel form in the sense that the current concern is less with finding and fixing the criteria for drawing clear demarcations between human, animal and machine, and more with winning acceptance to the idea that these borders are more blurred than we previously thought. Very often, moreover, claims to this effect come with a suggestion that these hybrid forms and fusions are a positive development: that it is ecologically progressive and/or humanly emancipatory to break down these conceptual barriers and commit ourselves to less rigid, fuzzier modes of thinking.<sup>5</sup>

As suggested above, genetic advances have prompted some of this with their anxieties about where to draw the divide between the artificially contrived and the naturally given. So, too, have advances in IT, and there are so-called 'connectionists' and advocates of 'Emergent Artificial Intelligence' who emphasise the unpredictable, non-rule governed and non-determined qualities of the most sophisticated computers, and view these as 'psychological machines'<sup>6</sup>

The politics of animal liberation is a further area where we are being encouraged to reconsider earlier conceptual clarities, in this case in respect of the human/animal divide. This 'ecological naturalism' represents a spectrum of positions within which there are important philosophical divisions, but what is common to all those sharing its anti-dualist perspective is a refusal to treat

---

<sup>5</sup> In their influential work on the condition of global 'empire' and the latterday proletarian agents of its eventual transformation, Michael Hardt and Antonio Negri enthuse, for example, over what they term the 'anthropological exodus' of these revolutionary 'new barbarians' and their unprecedented 'corporeal transformations'. The primary condition of these developments they tell us will be, 'The recognition that human nature is in no way separate from nature as whole, that there are no fixed and necessary boundaries between the human and the animal, the human and the machine, the male and the female, and so forth; it is the recognition that nature itself is an artificial terrain open to ever new mutations, mixtures and hybridizations', *Empire*, Harvard University Press, Cambridge Mass. & London, 2000, pp. 215-6.

<sup>6</sup> Sherry Turkle, 'Romantic Reactions', in James J. Sheehan and Morton Sosna, eds., *The Boundaries of Humanity: Humans, Animals, Machines*, University of California Press, Berkeley & Oxford, 1991, p. 226.

the differences between humans and other animals as anything but matters of degree within an essential ontological continuity, and the assumption that the more we come to recognise this and hence the fluidity of the conceptual divide between the human and the animals – the more eco-friendly our policies are likely to be, or, at any rate, the less tolerant we shall become of the maltreatment of animals. (Singer, 1976; 1989; Regan, 1988; Regan and Singer, 1989; Benton, 1993).

In the cyborg thinking of Donna Haraway and her followers (Haraway, 1991; 1997; 2008; Grey 1995; Peperell, 1995; Hardt and Negri, 2000: 215f; Wolfe, 2010), we have been invited to blur or collapse *both* the organic-inorganic *and* the human-animal opposition in favour of an ontology that cheerfully accepts the 'leakiness' of these boundaries, and revels in the emancipatory potential of cyber-technology to destabilize and revise existing constituencies and identities.<sup>7</sup>

Support of a more general philosophical kind for this type of 'post-humanist' ontological destabilisation and revision has also come from the anti-foundationalist shift in philosophy, most influentially in the argument of Deleuze, Foucault and Derrida. One might particularly note here Derrida's last writings on animals, and his presentation of our intuitive demarcations between human and non-human 'others' are a form of unwarranted conceptual policing.<sup>8</sup> Derrida, Singer and the cyborgists might seem strange bedfellows in certain respects, but there are some striking parallels between recent Continental philosophising 'becoming animal' and arguments produced – albeit in a very different style - much earlier within Anglo-American environmental ethics. (Cf. Atterton and Calarco, 2004).

But it is difficult to see how the normative goals of posthumanism can be consistent with its ontological commitments. Haraway, for example, promotes her call to blur or collapse the organic-inorganic, human-animal distinctions in the name of human sexual emancipation and more humane treatment of animals. Yet to protest against the cruelties of agribusiness and bio-technology is to protest against the treatment of organic beings as if they were mere Cartesian machines indifferent to the sufferings of their flesh; the disembodied cyborg hardly seems the icon we want to employ in making plain our objections to torture, or indeed to any form of assault upon the flesh; respect for the distinctive pleasures and pains of human love and sexuality is inconsistent with the erosion of the human-animal divide, and so on. The irony of the post-humanist invitations to undermine these conceptual

---

<sup>7</sup> Haraway echoes the calls of the ecological naturalists when she argues that 'nothing convincingly settles the separation of human and animals' and claims that 'movements for animal rights are not irrational denials of human uniqueness, but clear-sighted recognition of this connectedness.' (1991: 151-2; cf. 1997). But she also insists in the Manifesto that there are no longer clear delineations to be drawn between humans and machines, that we have all become fabricated and chimeric hybrids of machine and organism, and that the cyborg can provide us now with both our ontology and our politics (a point pursued particularly by Hardt and Negri in their influential argument on *Empire*).

<sup>8</sup> The 'other', Derrida tells us, in advocacy of his 'yes to the stranger ethic' should never be defined in advance: not as subject, self-consciousness, not even as animal, God, person, man or woman, living or dead.' (Derrida, 1994: 32; cf. "Eating Well," or the Calculation of the Subject: An Interview with Jacques Derrida' (Cadava, Connor and Nancy eds., 1991, pp. 96-119); for Derrida on animals, see 'The Animal that Therefore I am' and David Wood 'Thinking with Cats' ( Atterton and Calarco eds. 2004, pp.111-144).

distinctions is that if we were truly able to do so we would no longer recognise the force of the moral problems they are posing nor the attractions of the political agendas to which they are summoning us. A world bereft of these distinctions is a world bereft of the grounding conditions of any recognisable form of moral, political or scientific critique.

Posthumanists deplore human 'exceptionalism' as regrettably anthropocentric. Yet it has to be invoked as a condition of making sense of any moral argument, including that relating to human-animal relations and how they should be re-thought and re-made (cf. Diamond, 1991).<sup>9</sup> A posthumanism that seriously questions whether we should continue to privilege human intellectual capacities in our dealings with other forms of being, will surely also subvert the range of normative distinctions associated with the earlier moment of human exceptionalism. Posthumanist theory often appears to demand that we give up the idea of the human person as enjoying some special claim to self-realisation (cf. Morton, 2010; Wolfe, 2010). But if we were truly to manage to do this, then why should we any longer find the idea of the clone morally problematic or think of cloning as degrading to our human species-being? If human species specific attributes (language use; reason; reflectivity; powers of representation; imagination etc.) are not at issue in the normative valuing of, or treatment to be accorded, other beings, why should we give preference to the human victim of the virus rather than the virus? And the issue becomes even more acute in relation to machines. Even those supporting some kind of cyborg ontology or blurring of the mind-machine conceptual division, have argued for it on the basis of the quasi-mind-possession and 'ensouled' qualities of advanced computerisation. But if these capacities or attributes are to be disregarded because they are themselves rooted in some regrettably 'humanist' endorsement of human powers of cognition and reflexivity, in some preferring of 'minds' and 'souls', then why should any more value be accorded to robots and computers than to electric whisks or shavers?

### **III The ethical and/political framing of aesthetic responses to landscape/environment**

Finally, of more direct reference to cultural representation of the environment, let me turn to what I'm calling the ethical/political framing of aesthetic response: to the way in which the attractions or repulsions of different landscapes/scenes in 'nature' and their cultural imaging are never 'pure' in the

---

<sup>9</sup> As Cora Diamond has put it, 'the ways in which we mark what human life is belong to the source of moral life, and no appeal to the prevention of suffering which is blind to this can in the end be anything but self-destructive (...) if we appeal to people to prevent suffering, and we, in our appeal, try to obliterate the distinction between human beings and animals and just get people to speak or think of "different species of animals", there is no footing left from which to tell us what we ought to do, because it is not members of one among species of animals that have moral obligations to anything. The moral expectations of other human beings demands something of me as other than an animal; and we do something like imaginatively read into animals something like such expectations when we think of vegetarianism as enabling us to meet a cow's eyes. There is nothing wrong with that; there *is* something wrong with trying to keep that response and destroy its foundation.' (Diamond, 333).

Kantian sense of being 'disinterested' (unaffected by personal taste and prejudice), but always moulded by beliefs about what kinds of things are good or bad for us (and nature), and by our particular political sympathies.

Of relevance here is another AHRC project in which I was recently involved. Entitled 'Edge of a Dream', this centred around works by four photographers selected in virtue of their interest in registering incursions of 'nature', or more utopian and fantastic engagements with it, at the margins of the built environment. They included photos of sustainable dwellings (David Spero); of London parks and allotments (Virginia Nimarkoh); of the encroachment of plant life on buildings abandoned after the Malaysian crash in the 1990s (Simryn Gill); and of various theme parks around the world (Mandy Lee Jandrell).<sup>10</sup>

All the photographs expressly attend to aspects of landscape, or frame their objects, in ways that revealed something of the politics inscribed in what they are representing. But they are also all concerned in differing ways with the beauty or aesthetic impact of their images as well as with their 'utopic' messages - which means that they draw attention to the ways in which affective and aesthetic reactions are themselves politically mediated and moulded. They point to the way in which landscape imagery is conditioned not only by more purely aesthetic conventions, but also by a number of interlocking factors that I argue in my text for the project can loosely be assembled under the heading of their 'site politics'. And I noted, in particular, three aspects of this as affecting aesthetic response: property relations (ownership of the land and buildings); function (the actual or intended use of the land and buildings); and human and ecological consequences (the likely socio-economic and environmental impact of the activities and practices reflected in the images.) Whether, for example, we find the sustainable dwellings or allotments aesthetically attractive cannot, it seems, be divorced from our degree of understanding of, and support for, the environmental project they represent. Likewise with what we feel about the power of the imagery of abandoned multi-storey car-parks and office blocks or about the seductions of the artificial apple, or the Disney jungle, these more aesthetic reactions will all depend in part on how critical we are of capitalist globalisation, the growth economy, and its encroachments upon and constructions of 'nature'.

Thus while I find the sustainable dwellings rather beautiful, those who are more positive about consumer culture and the growth economy are likely to see them as instantiating their worst fears about a green future taking us back to Medieval modes of existence, and to find them much less aesthetically compelling in consequence. Depending, then, on the observer's political outlook, they will figure as variously seductive or repellent, as either enchanted homes or distasteful hovels. One dwelling, Spero tells us, was described by a *Time Out* critic as a 'mess'. On the other hand, the residents at Brithdir Mawr, whose dwellings have been challenged on aesthetic grounds as too unsightly to remain in the National Park, have used Spero's images to contest the case, setting them against images of an offensive shed that one of the councillors did get permission to build.

---

<sup>10</sup> The project was led by Virginia Nimarkoh, and involved a collaboration between Goldsmiths and Camberwell Art School. For more detail and images see: [www.edgeofdream.co.uk](http://www.edgeofdream.co.uk)

Gill's photos struck me as offering a particularly striking opportunity for further exploring the complexities of the links between the aesthetic of the built environment and material culture generally, and our sense of what constitutes 'progress' and 'prosperity'. Because they allow the observer to abstract from the utility of the buildings (the function has been abandoned, they have fallen into disuse etc.); and because the images have also been constructed in ways that heighten the isolation and de-contextualisation of its objects, we can 'test' out how far our aesthetic responses have to do with the ownership or function or environmental impact (were it not an abandoned ruin...) of what we see. A functioning multi-storey car-park can never to me personally look attractive, but this is largely in virtue of the vehicles it is designed to house, and the role of the car in the oil economy. When not functioning in that intended role, it may still not be beautiful, but one can certainly observe its structures with a different and less jaundiced eye.

These considerations on the nature of aesthetic response to material culture and the built environment, have some bearing on my own recent research – notably my argument around the concept of 'alternative hedonism', where I have been arguing that we need to build on an emerging concern with the downsides of consumerism by providing a much higher profile vision of the pleasures of a post consumerist lifestyle. Essential to this, I claim, is the development of a new political imaginary and countering aesthetic to challenge that of consumerist advertisement: an 'aesthetic revisioning' of material culture whereby the commodities that are currently perceived as enticingly glamorous gradually lose their appeal, and are replaced by the seductions of more eco-friendly articles and modes of consuming.<sup>11</sup>

Art and counter-cultural imagery of all kinds could have a significant role to play in this shift - whose potential scale and importance I have compared to the 'consciousness raising' brought about through feminism and its gradual but profound impact on our way of life. As individuals became alerted to the role of gender in their being, and of its social construction and hence mutability, so they entered into complex - and often painful – processes of self-change. Such 'reconstructions' can involve dramatic changes in affective response: epiphanies through which the attractions and repulsions of the world of lived experience undergo a kind of gestalt switch. A 'green renaissance' working upon affluent consumer sensibilities over coming decades might issue in some similar revisioning of self-interest and aesthetic response: in shifts whereby a lifestyle once seen as compelling comes to seem confining, and previously sought after commodities come to be viewed as cumbersome and ugly through association with unsustainable resource use, noise, toxicity or their legacy of un-recyclable waste.

---

<sup>11</sup> For some development of this argument, see Kate Soper, 'Re-thinking the "Good Life": the citizenship dimension of consumer disaffection with consumerism', *Journal of Consumer Culture*, 2:4, 205-229; 'The Other Pleasures of Post-Consumerism', *Soundings*, 35 Spring 2007; 'Alternative Hedonism and the Critique of Consumerism' Working Papers, Series no. 31, in the Cultures of Consumption Programme, London (with Lyn Thomas); 'Alternative Hedonism, Cultural Theory, and the Role of Aesthetic Revisioning', *Cultural Studies*, 22: 5-6, 2008. I acknowledge the funding support provided for this research by the ESRC-AHRC 'Cultures of consumption' Programme ('Alternative Hedonism and the Theory and Politics of Consumption, reference no.: RES-154-25-005. Further details at: [www.consume.bbk.ac.uk](http://www.consume.bbk.ac.uk)).

Obviously, these arguments will seem utopian to many. But no more so than the fantasies of those who continue to plot so nonchalantly for a future of ever expanding markets. For it now seems more unrealistic than ever, both socially and environmentally, to believe that here in the overdeveloped 'west' we can continue with current rates of growth in production, work and material consumption over the coming decades, let alone into the more distant future. Indeed, the value of culture to a green renaissance of the kind I am here advocating lies not only in the extent to which it offers a commentary on the environmental beauty and the values of the natural world, but also invites us to question the continuing realism and practicality of our dominant culture and ways of life. It is consumerist modernity that has to be made to seem surreal and dystopian.

(3,743 )

## Bibliography

- Atterton, P. and Calarco M. (2004) *Animal Philosophy*, London: Continuum
- Benton, T. (1989) 'Marxism and Natural Limits' *New Left Review* 178, November-December, pp. 51-86 (re-printed in P.Osborne (ed) *Socialism and the Limits of Liberalism* London: Verso 1990, pp.241-269).
- (1992) 'Ecology, Socialism and the Mastery of Nature: a reply to Reiner Grundmann' *New Left Review* 194, July-August, pp. 55-74
- Bordo, S. (1990) 'Feminism, Postmodernism, and Gender-Skepticism' in Linda Nicholson, ed., *Feminism/Postmodernism* London & New York: Routledge.
- Cadava, E., Connor, P. and Nancy, J-L. (1991) *Who Comes After the Subject?* London: Routledge.
- Derrida, J. (1994) 'The Deconstruction of Actuality' – an interview in *Radical Philosophy* no. 68, Autumn.
- Diamond, Cora (1991) *The Realistic Spirit, Wittgenstein, Philosophy and the Mind*, Cambridge, Mass., The MIT Press.
- Dollimore, J (1991) *Sexual Dissidence Augustine to Wilde, Freud to Foucault* Oxford: Clarendon.
- Goodland, R. and Daly, H. (1992) *Ten Reasons why Northern Growth is not the Answer to Southern Poverty*. Washington DC: Environmental Department: World Bank.
- Gray, C. H. (ed.) (1995) *The Cyborg Handbook*, London: Routledge.
- Hallman, W.K., et al., (2004) 'Americans and GM food: Knowledge, opinion, and interest in 2004'. (Publication no. RR-1104-007). New Brunswick, N.J.: Food Policy Institute, Cook College, Rutgers – The State University of New Jersey. At: <http://www.foodpolicyinstitute.org/docs/reports/NationalStudy2004.pdf>.
- Haraway, D. (1991) *Simians, Cyborgs and Women: the reinvention of nature*, London: Free Association, Routledge
- (1997) *ModestWitness@Second Millennium: FemaleMan© Meets OncoMouse™* London & New York: Routledge
  - (2008) *When Species Meet*, Minneapolis: University of Minnesota Press.
- Hardt, M. and Negri, A. (2000) *Empire* Harvard, Connecticut: Harvard University Press.
- Kaebnick, G. (forthcoming) 'Putting Concerns about Nature in Context: The Case of Agricultural Biotechnology' *Perspectives in Biology and Medicine*
- 'Reasons of the Heart: Reason, Attitude, and "the Wisdom of Repugnance"' Presentation to the Hastings Centre.

- Marris, C., et al. (2002) 'Public perceptions of agricultural biotechnologies in Europe: Final report of the PABE research project'. Commission of European Communities. Available at <http://www.pabe.net>.
- McCormick, B. (2000) 'The Island of Dr. Haraway', *Environmental Ethics*, Vol. 22, Winter, pp. 409-418
- McKibben, B. (1990) *The End of Nature*
- Morton, Tim (2007) *Ecology without Nature: Rethinking Environmental Aesthetics*, Cambridge MA: Harvard University Press.
- (2010) *The Ecological Thought*, Cambridge MA: Harvard University Press
- Peperell, R. (1995) *The Post-Human Condition*, Exeter: Intellect Books.
- Regan, T. (1988) *The Case for Animal Rights*, London
- Regan, T. and Singer, P. eds. (1989) *Animal Rights and Human Obligations*, 2<sup>nd</sup> Edn. New Jersey: Englewood Cliffs.
- Singer, P. (1976) *Animal Liberation*, London.
- Singer, P. (1989) 'All Animals are Equal' in Tom Regan and Peter Singer, eds., *Animal Rights and Human Obligations*, 2<sup>nd</sup> Edn., New Jersey: Englewood Cliffs.
- Sosin, J. and Richards, M. D (2005) 'What will consumers do? Understanding consumer response when meat and milk from cloned animals reach supermarkets'. Available at <http://www.krcresearch.com/images/AnalysisWhatWillConsDo11-04-05.pdf>.
- Soper, K (1993) 'To Each According to Their Need?'. In *New Left Review* 197, January-February 112-128.
- (1995) *What is Nature? Culture, Politics and the Non-Human* Oxford: Blackwell.
- (1996) 'Nature/ "Nature" in G. Robertson et alii (eds) *Future Natural* London: Routledge, pp. 22-34.
- (1999) 'Of OncoMice and FemaleMen: Donna Haraway on Cyborg Ontology', *Women, a Cultural Review*, Vol. 10, no 2, pp. 167-172.
- (2006) 'Counter-Consumerism in a New Age of War'. In *Radical Philosophy*, no. 135, January-February, 2006, pp.2-8.
- Streiffer, R. (2003) 'In defence of the moral relevance of species boundaries' *American Journal of Bioethics*. 3(3):37-38.
- UK Nuffield Council on Bioethics (1999) *Genetically Modified Crops: the Ethical and Social Issues*.
- Vogel, S. (1996) *Against Nature: the concept of Nature in Critical Theory* Albany: Suny UP. Press
- (2006) 'Why "Nature" Has No Place In Environmental Philosophy' Presentation to the Hastings Centre, Garrison NY, November 9.
- Wolfe, C. (2010) *What is Posthumanism?* Minneapolis: University of Minnesota Press.