Love is Green

Compassion as responsibility in the ecological emergency

by

Lucy Weir

Series on Climate Change and Society

VERNON PRESS

www.vernonpress.com

In the Americas:
Vernon Press
1000 N West Street,
Suite 1200, Wilmington,
Delaware 19801
United States

In the rest of the world:
Vernon Press
C/Sancti Espiritu 17,
Malaga, 29006
Spain

Series on Climate Change and Society

Library of Congress Control Number: 2019942263

ISBN: 978-1-62273-372-9

Cover design by Vernon Press.
Cover image by Matilda Moreton, www.matildamoreton.com.
Cover background image designed by Freepik.

Table of Contents

Acknowledgements

What I mean by love being green, as well as the obvious connection I make in this book between ourselves as enmeshed in ecological, green (and blue) systems, is that it is innocent, in the sense of wide-eyed and curious, like a child. I am well aware that the word used in that sense can be disparaging. But while compassion might seem on the surface to be anti-rational, and as Erasmus has it, a fool's game, most recent research is finding empirical support for the idea that love is inherent to our capacity to survive. It is also fresh, like new growth, and tough, in the sense that it is resilient, and demanding. All these come to mind when I think of being 'green', and I owe my own incipient investigations, and discussions, in this area, to my upbringing, with all its inherent contradictions. Thanks, then, to my family and to the Highlands of Scotland for the pageantry and the pain.

I started my PhD as a student of the late Dr Thomas Duddy, a poet and philosopher who worked at the National University of Ireland in Galway. I hope this book will spur an interest in his beautiful poetry. Tom introduced me to the work of Professor Paul W. Taylor who I contacted without any real expectation of response. He replied with generosity and brilliance in handwritten, insightful letters that were a joy to receive and that helped enormously in my attempts to understand, and re-imagine, biocentrism in the light of a systems-based approach. Professor Taylor died in 2015 and I hope that this book will in some small measure draw attention to the valuable work he undertook, and bring him more readers. I also owe a debt of gratitude to Professor Graham Parkes of University College, Cork, an acutely sensitive and brilliant scholar of both Nietzsche and Dōgen. Professor Jason M. Wirth of the University of Seattle turned me towards Zen and I am deeply grateful: Gassho.

I contacted a large number of philosophers and academics during the course of my research. I am humbled by their kindness. During the preparation of this manuscript, I have been in situations more desperate than I could previously ever have imagined, and yet I have felt supported and illuminated by my relations and relationships, so thank you to all who connected with intelligence and imagination. Thank you to the publisher,

Vernon Press, who has taken a leap of faith, and especially thanks to Argiris Legatos, and to Carolina Sanchez, who have been professionality incarnate in their dealings with me.

Finally, thanks, my Noel, for understanding compassion intimately. And to Joseph, Harry and Ella, the deepest bow, for you have given what should never have been asked, and yet you grow.

Introduction

This book links two apparently distinct issues: moral agency, and the ecological emergency. It does this through exploring three themes: free will, the "good" of systems (and the practice implications of these), and compassionate attunement, with all that results from such attention. Put simply, and in the context of the ecological emergency, I propose that we revise our understanding of what we are, and are not, free to do. I argue that it is only by incorporating the fullest possible understanding, scientific and rational, of all that we are, that we can elicit the sufficient conditions to respond to the ecological emergency (a phrase I unpack briefly below, and in much more detail throughout the book).

I argue that, notwithstanding my own optimism about the resilience of our species, and my acceptance of the unpredictability of the future, the ecological emergency is the fundamental threat of our time. To respond requires a fundamental shift in perspective. If enough of us make this critical shift in how we understand ourselves, and if, as a consequence, we elicit compassion in response, rather than our current reaction to the emergency, we will shift the trajectory enough to mitigate some of the inevitable mass human suffering and systems collapse. The longer we continue to treat the ecological emergency as an external problem, the deeper the suffering and collapse will be. Ultimately, we will be left in a much more fragile state as a species, with less capacity to retain the key elements that make humanity humane. The emergency is in us, and we are in it, as Timothy Morton points out.[1]

Our agency is the sense in which we are free to choose what to do, and our moral agency is the sense in which we are free to choose to do good, or evil (that is, to mitigate or to inflict suffering, deliberate harm or destruction). By taking what we know of evolutionary biology to its logical

[1] See Timothy Morton, *The Ecological Thought,* Harvard University Press, (2010); in relation to explaining more complex features in terms of more basic features, see Edward Slingerland and Mark Collard, *Creating Consilience: Integrating the Sciences and the Humanities,* New York: Oxford University Press, (2011).

conclusion, that is, by taking a rational, scientific approach, we must accept that our current general understanding of both our freedom to act, and our separability from all else, is an illusion.

Therefore, I explore in detail what remains, if anything, of our agency, and in particular, what replaces our moral agency. I go on to explore the nature of systems of energy dissipation, which is one way of looking at ourselves in context. In the narrow corner of existence, here in the ecosphere, within which we live, have come into being, and are sustained, it makes sense to talk of "the good" of systems, including our own. Therefore the fact/ value distinction is an illusion, and there are right, and wrong, ways to act. However, I attempt to describe how different this approach is from conventional ethics. We only become agents by paying attention, because it is only through attention, or realisation, that we elicit the attitude - compassion - that allows options that are good for us to emerge, or become real.

"The ecological emergency" is a phrase that encompasses both the environmental crises of pollution, deforestation, desertification, mass species extinction, and climate change, and also the human attempts to conceptualise this impact. The phrase is controversial. Among those who deny that an emergency of any kind exists are fatalists who, arguing from "naturalistic" reasons, believe there is nothing to be done:

> Humans' actions, regardless of their effect on other organisms, are natural and perfectly acceptable … we should be allowed to live out our "evolutionary potential to [our own destruction] because this is "nature's way".[2]

At the other end of the spectrum are those who believe there is no crisis to concern ourselves with, and that any attempt to articulate what is happening as an emergency is overblown hysteria. The most recent, and perhaps most widely disseminated, articulation of this position is laid out in Steven Pinker's recent book, *Enlightenment Now* which dismisses the fears that climate change and other environmental threats are "existential".[3] He cites a litany of examples that illustrate the human capacity for ingenuity in the face of resource depletion, and the slowing of exponentially harmful processes, like habitat destruction, when societies

[2] Richard A. Watson, "A Critique of Anti-Anthropocentric Biocentrism", Environmental Ethics, 5 (1983): 245–56.

[3] Steven Pinker, *Enlightenment Now: The Case for Reason, Science, Humanism and Progress*, New York: Penguin Books (2018).

meet a certain level of prosperity for their citizens. His position fails adequately to acknowledge that the emergence of anthropogenic climate change continues despite attempts by governments to agree on globally applicable legislation. It does acknowledge, however, that Garrett Hardin's analogy of "the tragedy of the commons" has shaped these negotiations to date.[4] As a result, globally, we face more extreme weather events resulting in mass forced migration with all the geopolitical and social instability that creates, and threats to agriculture and water supplies leading to food, and water shortages. These are in addition to the collapse of natural systems, from populations of insect pollinators like bees, to complex carbon capture systems like tundra and forests, on which human health and well-being depend.

There are, of course, also those who deny that any problem at all exists, or that we have any level of responsibility to protect and conserve other species or habitats, reduce pollutants, value biodiversity, or even see the threats to humanity as something we owe it to ourselves to address. This group remains averse to the notion that humans have any responsibility for the fates of other species. It depends on ideologies that have supernatural deities and magical thinking at heart. I will address the problems with ideological thinking separately. Here, I will echo the Scottish ecologist and pioneer of the conservation movement in The United States, in remarking, "the world, we are told, was made especially for man – a presumption not supported by all the facts."[5]

As governments and legislators begin to acknowledge the emergency, based on the vast consensus of scientific evidence, and work to formulate a response, conflicting approaches emerge. One approach demands that the nations that built empires during the industrial revolution be held accountable for their historical emissions, while others consider that only the contemporary situation matters.[6] Meanwhile, among the populace, attitudes are becoming more divergent, and views on how, and whether or

[4] Garrett Hardin, "The Tragedy of the Commons", Science, 162 (1968): 1243-1248.

[5] John Muir quoted in Lori Gruen, Dale Jamieson and Christopher Schlottmann, *Reflecting on Nature: Readings in Environmental Ethics and Philosophy*, New York: Oxford University Press, (2012): 23.

[6] https://www.theguardian.com/environment/2011/apr/21/countries-responsible-climate-change.

not, to respond depend on people's underlying beliefs and ideologies, some of which are flagrantly anti-enlightenment.[7]

Attitude is the basis of action. Our propensities for valuing one set of responses over another (for instance those which prioritise equality over those that prioritise loyalty to a group) are largely intuitive, as Jonathan Haidt shows in his collated research. However, we are also capable of reflecting on the influence of intuitions, as well as that of vested interests.[8] The pressure to contract the moral compass is huge, and again, we can look to Hardin for the analogy of a limited, or "lifeboat", ethic.[9] This book will argue that adopting such an ethic creates less resilience, not more, among human communities in situations of crises, and that the non-dualist understanding of agency makes a persuasive case for the survival benefits of "the golden rule", and an extending of compassion, even in extremis. An attitude of compassion is, to put it simply, a better survival strategy than fear, both individually, and collectively. Love can be tough, as well as gentle. Elinor Ostrom's refutal of Hardin's "tragedy of the commons" does much to support this argument.[10] Of course there are limits to the amount that any individual or society can give, but the non-dualist elicitation of compassion, tempered by continuous research and application of the science related to compassion in action, and applied equally to the self and to the other, provides an innovative basis from which to respond to the current emergency. We must balance the needs of the individual, the society and the broader systems within which both the former are couched, and we must recognise that the internal and the external worlds are far more intertwined than a technological, dualistic approach implies. This applies to our freedom to act as much as it does to what impact our actions will have: realisation as response, rather than reaction, is the only way we can shift the paradigm, and therefore the trajectory on which we are, collectively, headed.

This book is based largely on my PhD thesis, which was initially an examination of the theory of respect for nature laid out in the book of that

---

[7] Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Rosenthal, S. "Climate change in the American mind: October, 2015". *Yale Program on Climate Change Communication.* Yale University and George Mason University. New Haven, CT (2015).

[8] Jonathan Haidt, *The Righteous Mind*, New York: Penguin, (2012).

[9] Garrett Hardin, "Lifeboat Ethics: The Case Against Helping the Poor", *Psychology Today*, (1974), 800–812.

[10] Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action,* New York: Cambridge University Press, (1990).

name by the American philosopher, Paul Taylor.[11] Taylor took the Enlightenment ideas of Immanuel Kant, particularly the reasoned notion that we treat individuals as "ends in themselves" and extended the argument to include anything that could be said to have conditions that are "good" for it. Since all living organisms have conditions that are "good" for them, this led him to develop the theory of respect for nature, a rational basis on which to understand our obligations to other creatures.[12]

I began by critically examining, and revising, Taylor's thesis, and this led me to a broader, more relational, systems-based approach. I found myself having to revise what it means to be a moral agent. I went on to explore what "good" might mean in the context of systems, and the relationship between individual agency, or free will, and the notion of being entirely embedded in, or enmeshed, in, and as, systems.

For reasons entirely beyond my control, including the untimely death of my original supervisor, the second half of my thesis broadened my exploration of realisation as agency. It came to include a phenomenological understanding of enlightenment, based on the Zen tradition of Dōgen Zenji, the thirteenth century Japanese Zen Master who turned the traditional idea of working towards this Buddhist notion on its head. His understanding of how to live an enlightened life, or even a life worth living, is outlined in the *Shōbōgenzō*: *Treasury of the True Dharma Eye*, and it was to this text that I turned to unpack a deeper understanding of what it might mean to be an agent, if that meant paying attention first.[13]

Therefore, to a large degree, and mainly because of events that happened to me, rather than anything I was free to choose, my thesis, and therefore this book, became an exploration of the paradox of agency. My research began to bridge the apparently irreconcilable approaches of analytical, and phenomenological, philosophy. We have been led to believe, based on the hangover of Judeo-Christian and Cartesian worldviews, in certain dualisms (mind/ body; this world and the next; the spirit and the flesh). We can and should use reason, science, and the moral insights that an analytical approach allow to reconsider these dualisms.

---

[11] Paul W Taylor, *Respect for Nature: A Theory of Environment Ethics,* Princeton, N.J.; Woodstock: Princeton University Press, (1986).

[12] I have chosen not to capitalise the word "nature" when referring to ecological systems and species, and to the natural world, because in doing so I follow the convention adopted by Paul Taylor.

[13] Dōgen, *Shōbōgenzō*: *Treasury of the True Dharma Eye*, trans. Kazuaki Tanahashi. Boston: Shambhala, (2010).

When we do, we come to realise that the interaction between the internal and the external worlds is far more enmeshed that dualistic thinking can account for. This phenomenological, Zen-inspired insight shifts how we then interact. Such a shift requires a considerable effort of attention, particularly given the almost impenetrable dominance of the cultural paradigms of dualistic thinking.

Yet, we have the capacity to pay attention to our enmeshment and when we do, we can experience compassion arising from this attention. Compassion, or love as I call it in the title, allows options to emerge, to come into our awareness. In a sense, by paying attention, we become conduits through which compassion allows the good of systems to be realised.

The idea that allowing ourselves to attune to compassion is the central work in responding to the ecological emergency appears paradoxically ineffectual. Paying attention to the situation does not seem to offer us much in the way of action. Yet it is only through this realisation, along with a recognition of our non-dual nature, that we elicit the attitude which allows options to emerge that allow us to become resilient enough to mitigate the suffering we have caused. What is emerging, in this emergence, and emergency, is a challenge to develop an understanding of what compassion, or love, really means.

Summary of Chapters

I fear that by the time this book comes to publication, my defence of the phrase “ecological emergency” will be obsolete. There will no longer be a case to answer, because we will have incontrovertible evidence that climate change, pollution, habitat loss and species extinction constitute, by all measures, an emergency for our species, as well as for the majority of our co-evolved species, particularly vertebrates that require similar conditions for survival to ourselves. In the first chapter, I explore the various perspectives on the emergency. I give a brief exposure to the perspective of those who maintain that the whole notion is an invention by those who resent progress, and that the so-called emergency has been exaggerated, hyped up or even invented.[14] I touch on the other end of the spectrum: that we are doomed no matter what we do.[15] I spend more time

[14] Andrew Chitty, "Ideology and Climate Change Convictions", *Climate Change and Humanities* conference, Sussex University, (Nov 2013).

[15] Decca Aitkenhead, "Enjoy Life While You Can", Interview with James Lovelock, *The Guardian*, 1 March 2008, Environment Section, (March 1, 2008).

PAGES MISSING

FROM THIS FREE SAMPLE

Bibliography

Aitkenhead, Decca. '"Enjoy Life While You Can"' Interview with James Lovelock. *Guardian*. Section: Environment. 1 March 2008. http://www.theguardian.com/theguardian/2008/mar/01/scienceofclimatechange.climatechange.

———. '"Before the end of this century, robots will have taken over"'. Interview with James Lovelock. *Guardian* Section: Environment. 30 Sept 2016. https://www.theguardian.com/environment/2016/sep/30/james-lovelock-interview-by-end-of-century-robots-will-have-taken-over

Alexander, Thomas M. "John Dewey and the Moral Imagination: Beyond Putnam and Rorty Toward a Postmodern Ethics". *Transactions of the Charles S. Peirce Society* 29. 3. 1993: 369–400.

Anderson, James C. "Species Equality and the Foundations of Moral Theory". *Environmental Values*. 2. 4. 1 November 1993: 347–65. https://doi.org/10.3197/096327193776679837.

Attfield, Robin. "Biocentric Consequentialism and Value-Pluralism: A Response to Alan Carter". *Utilitas*. 17. 1. 2005: 85–92.

———. "Biocentric Consequentialism: Pluralism and the 'Minimax Implication': A Reply to Alan Carter". *Utilitas* .15. 1. 2003: 76–91.

———. "Biocentrism, Moral Standing, and Moral Significance". *Philosophica*. 39. 1. 1987: 47–58.

———. *Environmental Ethics: An Overview for the Twenty-First Century*. Cambridge, UK; Malden, MA: Polity Press. 2003.

———. 'Reconciling Individualist and Deeper Environmentalist Theories? An Exploration'. In *The Structural Links between Ecology, Evolution and Ethics*, edited by Donato Bergandi: 127–39. Boston Studies in the Philosophy and History of Science 296. Springer Netherlands. 2013. http://link.springer.com/chapter/10.1007/978-94-007-5067-8_9.

Austin, James H. *Zen and the Brain:Toward an Understanding of Meditation and Consciousness*. MIT Press. 1999.

Baez, John. 'Entropy and Information in Biological Systems'. In The Azimuth Forum (blog) . http://johncarlosbaez.wordpress.com/2013/11/02/entropy-and-information-in-biological-systems/.

———. *Creativity in the Face of Climate Change*. 2009. <http://www.youtube.com/watch?v=in5F3OfbtUA&feature=youtube_gdata_player>

———.The Azimuth Forum. www.johncarlosbaez.wordpress.com.

Barnes, S., K. W. Brown, E. Krusemark, W. K. Campbell, and R. D. Rogge. 'The Role of Mindfulness in Romantic Relationship Satisfaction and Responses to Relationship Stress". *Journal of Marital and Family Therapy*. 33. 2007: 482–500.

Bennett, Jane. 'Systems and Things: A Response to Graham Harman and Timothy Morton'. *New Literary History*. 43. 2. 2012: 225–33. https://doi.org/10.1353/nlh.2012.0020.

Berry, Wendell. *The Landscape of Harmony*. Hereford: Five Seasons. 1987.

———. *Home Economics*. San Fransisco: Northpoint. 1987.

Birch, Thomas M. "Moral Considerability and Universal Consideration". *Environmental Ethics*. 15 1993: 313–32.

Bolinsky, David. "Visualizing the Wonder of a Living Cell". TED Talk. March 2007. <http://www.ted.com/talks/david_bolinsky_animates_a_cell.html>.

Botkin, Daniel B. *Discordant Harmonies: A New Ecology for the Twenty-First Century*. New York, NY: Oxford University Press. 1990.

Braungart, Michael, and William McDonough. *Cradle to Cradle*. London: Vintage. 2009.

Brennan, Andrew. *Thinking about Nature*. University of Georgia Press, 1988.

Brennan, Jason. "Dominating Nature". *Environmental Values*. 16. 4.1 November 2007: 513–28.

Britton, Easkey, Gesche Kindermann, Christine Domegan, and Caitriona Carlin. "Blue Care: A Systematic Review of Blue Space Interventions for Health and well-being". *Health Promotion International*. https://doi.org/10.1093/heapro/day103.

Brockman, John (ed.). *What Is Your Dangerous Idea?: Today's Leading Thinkers on the Unthinkable*. New York: Harper Perennial. 2007.

Brown, Lester R., Christopher Flavin, and Sandra Postel. "Vision of a Sustainable World". In *The World Watch Reader on Global Environmental Issues*. New York: Norton. 1998: 299–315.

Buell, Lawrence. "Ecological Contemplation as Spiritual Practice: The Case of Henry David Thoreau". Cambridge, MA: Center for the Study of World Religions, Harvard Divinity School. 2005. http://www.hds.harvard.edu/cswr/resources/print/dongguk/buell.pdf.

Burns, Robert. *The Collected Poems of Robert Burns*. New edition. Ware: Wordsworth Editions Ltd. 1994.

Cahen, Harley. "Against the Moral Considerability of Ecosystems". *Environmental Ethics*. 10, 3. 1988: 195–216.

Callicott, J. Baird. *In Defense of the Land Ethic: Essays in Environmental Philosophy*. New York: SUNY Press, 1989.

———. 'Introductory Palinode'. J. Baird Callicott. http://jbcallicott.weebly.com/introductory-palinode.html.

———, and Roger T. Ames. N*ature in Asian Traditions of Thought: Essays in Environmental Philosophy*. New York: SUNY Press. 1989.

Case, Amber, "We Are All Cyborgs Now" TED Talk http://www.ted.com/talks/amber_case_we_are_all_cyborgs_now.html

Carson, J. W., K. M. Carson, K. M. Gil, and D. H. Baucom. 'Mindfulness-Based Relationship Enhancement'. *Behavior Therapy*. 35. 2004: 471–94.

Carson, Rachel. *Silent Spring*. London: Penguin, 1965.

Carter, Alan. "Inegalitarian Biocentric Consequentialism, the Minimax Implication and Multidimensional Value Theory: A Brief Proposal for a New Direction in Environmental Ethics". *Utilitas*. 17. 1. 2005: 62–84.

Carter, Neil H., Bhim Gurung, Andrés Viña, Henry Campa III, Jhamak B. Karki, and Jianguo Liu. "Assessing Spatiotemporal Changes in Tiger Habitat across Different Land Management Regimes". *Ecosphere*. 4. 10. 1 October 2013: art124. https://doi.org/10.1890/ES13-00191.1.

Chakravarty, Shoibal, Ananth Chikkatur, Heleen de Coninck, Stephen Pacala, Robert Socolow, and Massimo Tavoni. "Sharing Global CO2 Emission Reductions among One Billion High Emitters". *Proceedings of the National Academy of Sciences*, 6 July 2009. https://doi.org/10.1073/pnas.0905232106.

Chang, Raymond. *Chemistry*. 9th edition. Boston: McGraw-Hill. 2006.

Chitty, Andrew. "Ideology and Climate Change Convictions". Sussex University, 2013. http://www.associationforpoliticalthought.ac.uk/sussex-university-workshop-on-climate-change-and-the-humanities/.

Cockell, Charles S. "The Value of Microorganisms". *Environmental Ethics*. 27. 4. 2005: 375–390.

Cohen, Leonard. "Leonard Cohen on Depression and Relationships". YouTube Video. 13 Aug 2009. https://www.youtube.com/watch?v=FAoHYBpj8vY

Commoner, Barry. "How Poverty Breeds Overpopulation". In David Keller (ed). *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010: 443-446.

Cook, Francis. "The Jewel Net of Indra". In *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy*. New York: SUNY Press. 1989: 213–29.

Cooper, GM. *The Cell: A Molecular Approach*. 2nd edition. Sinauer Associates; 2000. https://www.ncbi.nlm.nih.gov/books/NBK9841/.

Curry, Oliver. 'Who's Afraid of the Naturalistic Fallacy?' Evolutionary Psychology, no. 4 (2006): 234–47.

Davies, Chris, MEP, Personal Communication while at a meeting in the EU Commission (Fact Finding Mission with the Irish Environmental Network). Oct 2013.

Davidson, Richard J. and Antoine Lutz."'Buddha's Brain: Neuroplasticity and Meditation". *IEEE Signal Processing Magazine*, 1 January 2008: 176-174.

Dawkins, Richard. *The Selfish Gene*. Oxford: Oxford University Press, 1976.

DeGrazia, David. "On the Questions of Personhood Beyond Homo Sapiens", in Peter Singer (ed.) *In Defense of Animals*, Blackwell. 2004).

De Groot, Mirjam, Martin Drenthen, and Wouter T. de Groot, "Public Visions of the Human/Nature Relationship and Their Implications for Environmental Ethics". *Environmental Ethics*. 33. 2011: 25–44.

Diamond, Jared. *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking, 2005.

Dincer, Ibrahim. “Energy and Environmental Impacts: Present and Future Perspectives”. *Energy Sources*. 20. 4–5. May 1998: 427–53. https://doi.org/10.1080/00908319808970070.

———. “Thermodynamics, Exergy and Environmental Impact”. *Energy Sources*. 22. 8. 1 September 2000: 723–32. https://doi.org/10.1080/00908310050120272.

Dōgen. *Shōbōgenzō: Treasury of the True Dharma Eye*. Edited by Kazuaki Tanahashi. Boston: Shambhala, 2010.

———. "Points to Watch in Practicing the Way" *Gakudō-yojinshū*, in *Dōgen Zen*, trans. Shohaku Okumura. Kyoto: Kyoto Sōtō Zen Center. 1988.

Dor-Ziderman Yair and others, "Mindfulness-Induced Selflessness: A MEG Neurophenomenological Study". *Frontiers in Human Neuroscience*. 7. 2013.

Duddy, Thomas. “Walking Respectfully Upon the Earth”. In The ‘*From Ego to Eco’ Conference*. NUIG. Galway. 2011. http://www.wix.com/nuigalway/from-ego-to-eco-conference.

Durland, Karann, "The Prospects of a Viable Biocentric Egalitarianism". *Environmental Ethics*. 30. 2008: 401–16.

Dworkin, Ronald. “What Is a Good Life?” *The New York Review of Books*. 10 February 2011. http://www.nybooks.com/articles/archives/2011/feb/10/what-good-life/.

Eliot, T. S. *Four Quartets*. England: Gramophone Co. 1950.

Elliot, Robert. *Faking Nature: The Ethics of Environmental Restoration*. Routledge. 1997.

——— and Center for Environmental Philosophy, The University of North Texas. “Instrumental Value in Nature as a Basis for the Intrinsic Value of Nature as a Whole”. *Environmental Ethics*. 27. 1. 2005: 43–56. https://doi.org/10.5840/enviroethics200527140.

Emerson, Ralph Waldo. *Nature*. Boston : James Munroe and Company. 1836. http://archive.org/details/naturemunroe00emerrich.

Evans, Claude J. *With Respect for Nature: Living as Part of the Natural World*, New York: SUNY Press. 2005.

Feinberg, Joel. *Rights, Justice, and the Bounds of Liberty: Essays in Social Philosophy*. Princeton, N.J.: Princeton University Press. 1980.

———. “The Rights of Animals and Unborn Generations”. In *Rights, Justice, and the Bounds of Liberty: Essays in Social Philosophy*, Chapter 8. Princeton University Press, 1980.

Ferry, Luc. *The New Ecological Order*. 2nd edition. Chicago: University of Chicago Press, 1995.

Filice, Carlo. ‘Rawls and Non-Rational Beneficiaries’. *Between the Species* 13, no. 6. 2006.

Fodor, Jerry A, and Massimo Piattelli-Palmarini. *What Darwin Got Wrong*. New York: Picador/Farrar, Straus and Giroux. 2011.

Foreman, Dave ."Earth First!" In David Keller (ed.). *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010: 327-332.

Foster, John. "After Illusion: Realism, Philosophy and Hope in a Seriously Warming World". *Climate Change and Philosophy at the Tipping Point*. Conference.Lancaster University. March 2011.

———. Personal Communication via email, March 2014.

Fouke, Daniel C. "Humans and the Soil". *Environmental Ethics*. 2. 2011: 147–61. https://doi.org/10.5840/enviroethics201133218.

Fountain, Henry. "A Respite from Record Losses But Tropical Forests Are Still In Trouble". *New York Times*. 25 April 2019. https://www.nytimes.com/2019/04/25/climate/tropical-forest-deforestation.html.

Fox, Warwick. "Forms of Harm and Our Obligations to Humans and Other Animals". In Evangelos D Protopapadakis (ed.) *Animal Ethics: Past and Present Perspectives*. Berlin: Logos Verlag. 2012: 197–221.

———. "Problem 14 in Human Relationships, Nature, and the Built Environment: Problems That Any General Ethics Must Be Able to Address". In *Sage Handbook of Environment and Society*. London: Sage, 2007: 107–23.

———. *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism*. Albany, New York: SUNY Press. 1995.

———. "Responsive Cohesion: Thinking in Context," *Resurgence*. 241. March/April 2007: 22-25.

———. "Ethics, Architecture, Responsive Cohesion and the Transition to a More Habitable Future". Paper presented to the *Ethics and the Built Environment* conference. Nottingham University. 9-11 Sept 2009.

Glover, Jonathan, and M. J. Scott-Taggart. "It Makes No Difference Whether or Not I Do It". *Aristotelian Society Supplementary*. 49. 1975: 171–209.

Godfrey-Smith, Peter. *Other Minds : The Octopus, the Sea, and the Deep Origins of Consciousness*. Farrar, Straus and Giroux. 2016.

Gorman, James. "Aliens Inside Us: A (Mostly Friendly) Bacterial Nation". *The New York Times*. 1 April 2003. https://www.nytimes.com/2003/04/01/science/aliens-inside-us-a-mostly-friendly-bacterial-nation.html.

Goudie, Andrew S. *The Human Impact on the Natural Environment: Past, Present, and Future*. Chichester: Wiley-Blackwell. 2009.

Gruen, Lori, Dale Jamieson, and Christopher Schlottmann. *Reflecting on Nature: Readings in Environmental Ethics and Philosophy*. 2nd ed. New York: Oxford University Press. 2012.

Haidt, Jonathan. *The Righteous Mind: Why Good People Are Divided By Politics and Religion*. New York: Pantheon Books. 2012.

Hall, Matthew."Plant Autonomy and Human-Plant Ethics". *Environmental Ethics*. 31. 2. 2009: 169–181.

Hansen, James. *Storms of My Grandchildren*. London: Bloomsbury, 2011.

Hardin, Garrett. "Lifeboat Ethics: The Case Against Helping the Poor". *Psychology Today*. 1974: 800–812.

———. “The Tragedy of the Commons”. *Science*. 162. 13 December 1968: 1243-1248.

———. ‘Who Cares for Posterity?’. In Louis P Pojman and Paul Pojman (eds). *Environmental Ethics: Readings in Theory and Application*. Wiley-Blackwell. 2008: 350–57.

Hargrove, Eugene. “Editor’s Response to The Monkeywrench Gang”. In David Keller, (ed.) *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010: 336.

Harrell-Bond, Barbara E. *Imposing Aid: Emergency Assistance to Refugees*. Oxford University Press, Incorporated, 1986.

Harris, Samuel. *Free Will*. Free Press. 2012.

———. *The Moral Landscape: How Science Can Determine Human Values*. New York: Free Press, 2010.

———. Transcript of “Science Can Answer Moral Questions”. Accessed 17 January 2019. https://www.ted.com/talks/sam_harris_science_can_show_what_s_right/transcript.

Hart, H. L. A. "Are There Any Natural Rights?" *Philosophical Review*. 64. 195: 175–91.

Hawkins, Ronnie. “Extending Plumwood’s Critique of Rationalism Through Imagery and Metaphor”. *Ethics and the Environment* 14, no. 2 (2009): 99–113.

———. “Introduction: Beyond Nature/Culture Dualism: Let’s Try Co-Evolution Instead of ‘Control’”. *Ethics and the Environment*. 11. 2. 2006: 1–11.

Hickman, Leo. “James Lovelock: Humans Are Too Stupid to Prevent Climate Change”. *The Guardian*, 29 March 2010, sec. Environment. http://www.theguardian.com/science/2010/mar/29/james-lovelock-climate-change.

Holden, N.J., F. Wright, K. MacKenzie, J. Marshall, S. Mitchell, A. Mahajan, R. Wheatley, and T.j. Daniell. “Prevalence and Diversity of Escherichia Coli Isolated from a Barley Trial Supplemented with Bulky Organic Soil Amendments: Green Compost and Bovine Slurry”. *Letters in Applied Microbiology*. 58. 3. 1 March 2014: 205–12. https://doi.org/10.1111/lam.12180.

Hume, David. *A Treatise of Human Nature*. L.A. Selby-Bigge (ed.). Oxford: Clarendon Press. (1793). 1896. Available at Online Library of Liberty, http://oll.libertyfund.org/?option=com_staticxt&staticfile=show.php%3Ftitle=342.

James, Simon P. “Against Holism: Rethinking Buddhist Environmental Ethics”. *Environmental Values*. 16. 4. 2007: 447–461.

———. “Buddhism and the Ethics of Species Conservation”. *Environmental Values*. 15. 1. 2006: 85–97.

———. “Finding - and Failing to Find - Meaning in Nature”. *Environmental Values*. 22. 5. 2013: 609–625.

———. “Human Virtues and Natural Values”. *Environmental Ethics*. 28. 4. 2006: 339–353.

Jamieson, Dale. “Climate Change, Consequentialism, and the Road Ahead”. *Chicago Journal of International Law*. 13. 2. Winter 2015: 440–68.

———. "Global Warming and the Ethics of Climate Change", http://www.youtube.com/watch?v=_pPnc-ocQOA

Kao, Ernest. “Air Pollution Is Killing 1 Million People and Costing Chinese Economy 267 Billion Yuan a Year, Research from CUHK Shows”. *South China Morning Post*. 2 Oct 2018. https://www.scmp.com/news/china/science/article/2166542/air-pollution-killing-1-million-people-and-costing-chinese.

Kauffman, Stuart. *At Home in the Universe*. Oxford University Press. 1995.

Kalmanson, Leah. ‘The Messiah and the Bodhisattva: Anti-Utopianism Re-Revisited”. *Shofar: An Interdisciplinary Journal of Jewish Studies*. 30. 4. 2012: 113–25. https://doi.org/10.1353/sho.2012.0077.

Kawall, Jason. "On Behalf of Biocentric Individualism". *Environmental Ethics*. 30. Spring 2008: 69-88.

Keller, David. (ed.).*Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell, 2010.

Kim, Hee-Jin. *Eihei Dōgen: Mystical Realist*. Boston: Wisdom Publications. 2004.

King, Roger J. H. “Critical Reflections on Biocentric Environmental Ethics: Is It an Alternative to Anthropocentrism?” In Andrew Light and Jonathan M. Smith (eds). *Space, Place and Environmental Ethics*. Rowman and Littlefield. 1996: 209–28.

———. “Playing with Boundaries: Critical Reflections on Strategies for an Environmental Culture and the Promise of Civic Environmentalism”. *Ethics, Place and Environment*. 9. 2. 2006: 173–186.

Klarr, Lisa, Ryan Vu, and Gerry Canavan. *Ecology and Ideology*. Durham, N.C.: Duke University, 2010.

Korb, Judith. “Termite Mound Architecture, from Function to Construction”. In David Edward Bignell and Yves Roisin (eds). *Biology of Termites: A Modern Synthesis*. 2nd Edition. Dordrecht, New York: Springer. 2010:349–73.

Kuiken, Todd. “A Prosthetic Arm That Feels?” TED Talk: https://www.ted.com/talks/todd_kuiken_a_prosthetic_arm_that_feels?language=en.

Knights, Paul. “Native Species, Human Communities and Cultural Relationships”. *Environmental Values*. 17. 3. 2008: 353-373.

Ladyman, James. “What Is Structural Realism?” *Studies in History and Philosophy of Science Part A*. 29. 3. 1998: 409–424.

———, James Lambert, and Karoline Wiesner. “What Is a Complex System?” *European Journal for Philosophy of Science* 3. 1. 1 January 2013: 33–67. https://doi.org/10.1007/s13194-012-0056-8.

Lai, Karyn L. “Conceptual Foundations for Environmental Ethics: A Daoist Perspective”. *Environmental Ethics* 25. 2003: 247–266.

Latour, Bruno. '"It's Development, Stupid!" or How to Modernize Modernization?' In *Postenvironmentalism*, edited by Jim Proctor. New York: Houghton Mifflin Company, 2007.

Leferna, Alexandre Georges, "Betting on Climate Failure: The Ethics & Economics of Fossil Fuel Divestment". Unpublished Paper. Uploaded on www.academia.edu. 2014.

Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Rosenthal, S. "Climate change in the American mind: October, 2015". *Yale Program on Climate Change Communication*. Yale University and George Mason University. New Haven, CT: 2015.

Leonard, Liam. *The Environmental Movement in Ireland*. Springer, 2007.

Leopold, Aldo. *A Sand County Almanac: With Essays on Conservation from Round River*. New York: Ballantine Books. 1970.

Lilley, Rachel, Mark Whitehead, Rachel Howell, Rhys Jones, and Jessica Pykett. *Mindfulness, Behaviour Change and Engagement in Environmental Policy. Report of the MBCEEP Programme*. Unpublished. 2016. Available at https://changingbehaviours.files.wordpress.com/2016/01/mindfulnessreportgapfinal.pdf.

Locke, John, and P. H. Nidditch. *An Essay Concerning Human Understanding*. Oxford: Clarendon Press. 1979.

Lomborg, Bjørn. *Cool It: The Skeptical Environmentalist's Guide to Global Warming*. New York: Alfred A. Knopf, 2007.

Lomborg's debate with Eamon Ryan on http://www.rte.ie/radio1/today-with-sean-o-rourke/programmes/2013/1202/490406-today-with-sean-o-rourke-monday-2-december-2013

Long, Todd R. "Moderate Reasons-Responsiveness, Moral Responsibility, and Manipulation". In Joseph Campbell, Michael O'Rourke, and David Shier (eds) *Freedom and Determinism*. MIT. 2004.

Lotto, Beau. "Optical Illusions Show How We See" YouTube. 2009. http://www.youtube.com/watch?v=mf5otGNbkuc&feature=youtube_gdata_player.

Lovelock, James. *The Revenge of Gaia: Earth's Climate in Crisis and the Fate of Humanity*. New York: Basic Books. 2006.

Lucas, Caroline, and James Delinpole Debate. "Corby Wind Farm Ex-Candidate: 'I Won'". *BBC*. 1 November 2012. Section: UK Politics. http://www.bbc.co.uk/news/uk-politics-20168738.

Mackenzie, Fiona. "A common claim: Community land ownership in the Outer Hebrides, Scotland," *The Commons Journal*.1. 2010. Retrieved from http://www.thecommonsjournal.org/index.php/ijc/article/view/151/120.

Malthus, Thomas Robert *An Essay on the Principle of Population.* 1789. http://www.gutenberg.org/ebooks/4239

Margulis, Lynn. Endosymbiotic Theory described: https://lecerveau.mcgill.ca/flash/capsules/articles_pdf/endosymbiotic_theory.pdf

Martin, Mike W. *Albert Schweitzer's Reverence for Life: Ethical Idealism and Self-Realization*. Aldershot, England: Ashgate, 2007.

Maxwell, Nicholas. "Can the World Learn Wisdom?" *Solidarity, Sustainability, and Non-Violence* 3. 4. 2007.

Mckinnon, Catriona. "Basic Income, Self-Respect and Reciprocity". *Journal of Applied Philosophy*. 20. 2. 2003: 143–158.

Moeller, Hans-Georg. *The Moral Fool: A Comparative Case for Amorality*. New York: Columbia University Press. 2009.

Moore, G. E. *Principia Ethica*. Cambridge University Press. 1993.

Moore, Patrick. "Dr. Patrick Moore". Accessed 26 January 2019. http://ecosense.me/.

Moore, Thomas Gale. 'Global Warming: A Boon to Humans and Other Animals'. *Hoover Institution Working Paper, Stanford*, 1995.

Morton, Timothy. "Don't Just Do Something, Sit There! Global Warming and Ideology". In Anne Sophie Witzke (ed.). Rethink: Contemporary Art and Climate Change. Copenhagen: Alexandra Institute. 2009: 49–52.

———. *Ecology without Nature: Rethinking Environmental Aesthetics*. Cambridge, Mass.: Harvard University Press. 2009.

———. "Environmentalism". In Nicholas Roe (ed). *Romanticism: An Oxford Guide*. Oxford: Oxford University Press. 2005: 696–707.

———. *Hyperobjects: Philosophy and Ecology after the End of the World*. University of Minnesota Press. 2013.

———. *The Ecological Thought*. Harvard University Press, 2010.

———. "Ecology without the Present". *Oxford Literary Review*. 34. 2012: 229–38.

———. "My Talk to the Rice Faculty". Feb 2014. Available at https://ecologywithoutnature.blogspot.com/2014/02/my-talk-to-rice-faculty-in-mid-feb.html.

———, and Cary Wolfe. "On Environmental Humanities". YouTube Video. March 2007. http://www.youtube.com/watch?v=iaoQwgt_Bfw

Moyers, William. *Wendell Berry: Poet & Prophet*, n.d. http://billmoyers.com/episode/full-show-wendell-berry-poet-prophet/.

Muir, John. *Travels in Alaska 1915*. Modern Library Inc. 2002.

Nagel, Thomas. "What Is It Like to Be a Bat?" *Philosophical Review*. 83. October 1974: 435–50.

Nietzsche, Frederick. *Will to Power*. Translated by Walter Kaufmann. 1967 1st ed. New York: Random House. 1906.

Nussbaum, Martha. *Not for Profit: Why Democracy Needs the Humanities*. Princeton, N.J.: Princeton University Press. 2010.

Olson, Eric. 'An Argument for Animalism'. In R. Martin and J. Barresi (eds). *Personal Identity*. Oxford: Blackwell. 2003: 318–34.

O'Neill, John. "The Varieties of Intrinsic Value". In David Keller (ed.) *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010: 120-129.

Ostrom, Elinor. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press, 1990.

Parfit, Derek. *Reasons and Persons*. Oxford: Clarendon Press, 1987.

Parkes, Graham. 'Kūkai and Dōgen as Exemplars of Ecological Engagement'. *Journal of Japanese Philosophy*. 1. 1. 1 June 2013: 85–110.

———. "Nuclear Power After Fukushima 2011: Buddhist and Promethean Perspectives". *Buddhist-Christian Studies*. 32. 1. 2012: 89–108.

———. "Body-Mind and Buddha-nature: Dōgen's Deeper Ecology", in J.W. Heisig and R. Raud. Nagoya (eds). *Frontiers of Japanese Philosophy: Classical Japanese Philosophy*. Nanzan Institute for Religion and Culture. 2010: 122-47.

———. "Voices of Mountains, Trees, and Rivers: Kūkai, Dōgen, and a Deeper Ecology". In Duncan Ryūken Williams and Mary Evelyn Tucker (eds). *Buddhism and Ecology: The Interconnection of Dharma and Deeds*. Cambridge, Mass.: Harvard University Center for the Study of World Religions. Distributed by Harvard University Press. 1997: 111–28.

Parsell, Mitch. 'Pernicious Virtual Communities: Identity, Polarisation and the Web 2.' *Ethics and Information Technology* 10. 1. 2008: 41–56.

Pateman, Carole, and Charles Wade Mills. *Contract and Domination*. Cambridge, UK; Malden, MA: Polity Press. 2007.

Piketty, Thomas, and Arthur Goldhammer. *Capital in the Twenty-First Century*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. 2014.

Pinker, Steven, *Enlightenment Now: The Case for Reason, Science, Humanism and Progress*, New York: Penguin Books. 2018.

Pollan, Michael. 'The Intelligent Plant'. *The New Yorker*. 23 December 2013. http://www.newyorker.com/reporting/2013/12/23/131223fa_fact_pollan?currentPage=all.

Rolston, Holmes III. 'Caring for Nature: From Fact to Value, from Respect to Reverence'. *Zygon*® 39, no. 2 (2004): 277–302. https://doi.org/10.1111/j.1467-9744.2004.00574.x.

———. "The Future of Environmental Ethics". In *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010: 561–74.

———. 'The Pasqueflower'. *Natural History* 88, no. 4 (April 1979): 6.

Rosen, Marc A., and Ibrahim Dincer. 'On Exergy and Environmental Impact'. *International Journal of Energy Research*. 21. 7. 1997: 643–654. https://doi.org/10.1002/(SICI)1099-114X(19970610)21:7<643::AID-ER284>3.0.CO;2-I.

Rowe, Richard. 'Tolerance'. *The Philosopher* VIII (1930).

Ryan, Frank. *Virolution*. London: Collins. 2009.

Sacks, Oliver, Tim Flannery, Caspar Henderson, H. Allen Orr, and Richard C. Lewontin. "The Mental Life of Plants and Worms, Among Others". *The New York Review of Books*. 24 April 2014. http://www.nybooks.com/articles/archives/2014/apr/24/mental-life-plants-and-worms-among-others/.

Salthe, Stanley. "Maximum Power and Maximum Entropy Production: Finalities in Nature". *Cosmos and History: The Journal of Natural and Social Philosophy*. 6. 1. 2010: 114–121.

———. "Purpose in Nature". *Ludus Vitalis: Journal of Philosophy of Life Sciences*. 16. 29. 2008: 49–58.

———, and Barbara M. Salthe. “Ecosystem Moral Considerability: A Reply to Cahen”. *Environmental Ethics* 11, no. 4 (1989): 355–361.

Sampson, Scott. “The purpose of the universe is to disperse energy” in John Brockman (ed.).*What is your Dangerous Idea?* New York: Harper Perennial. 2007.

Schwitzgebel, Eric. “Do Ethicists Steal More Books?” *Philosophical Psychology* 22. 6. 2009: 711–25. https://doi.org/10.1080/09515080903409952.

Sen, Amartya. "Population: Delusion and Reality". In David Keller (ed.). *Environmental Ethics: The Big Questions.* Chichester: Wiley-Blackwell. 2010.

Shell. “Sustainability Rankings”. Web Page. Accessed Dec 2018. http://www.shell.com/global/environment-society/performance/indices.html

Silbersweig David, and David R. Vago, "Self-Awareness, Self-Regulation, and Self-Transcendence (S-ART): A Framework for Understanding the Neurobiological Mechanisms of Mindfulness". *Frontiers in Human Neuroscience.* 6. 2012.

Siggins, Lorna. “Investigation Finds IT Upgrade Responsible for Corrib Gas Release” Aug 1 2018. *Irish Times.* https://www.irishtimes.com/news/ireland/irish-news/investigation-finds-it-upgrade-responsible-for-corrib-gas-release-1.3582937.

Singer, Peter. *Practical Ethics.* New York: Cambridge University Press. 2011.

———. *The Expanding Circle: Ethics, Evolution, and Moral Progress.* Princeton, NJ: Princeton University Press, 2011.

———. *The Life You Can Save.* Pan Macmillan. 2010.

———. "Famine, Affluence and Morality", *Philosophy and Public Affairs*, 1, 3, Blackwell, (Spring 1972): 229-243.

———, and Michael Slote, Philosophy TV http://www.philostv.com/peter-singer-and-michael-slote/

Singh, Nirbhay, Giulio E. Lancioni, Ramasamy, Alan S.W. Winton, Ashvind N.A. Singh, Singh Judy, and Singh Angela D.A. “Mindful Parenting Decreases Aggression and Increases Social Behavior in Children with Developmental Disabiltiies”. *Behavior Modification.* 31. 6. n.d.: 749–71.

Sterba, James P. “Completing the Kantian Project: From Rationality to Equality”. In *Presidential Address. Proceedings and Addresses of the American Philosophical Association.* Chicago, Illinois. 82. 2. 2008: 47–83.

———. "Kantians and Utilitarians and the Moral Status of NonHuman Life". In David Keller (ed.) *Environmental Ethics: The Big Questions.* Chichester: Wiley-Blackwell. 2010: 184.

Sylvan (Routley), Richard. ‘Is There a Need for a New, an Environmental Ethic?’ *Proceedings of the XVth World Congress of Philosophy.* I. 1973: 205–10.

Stone, Christopher D. "Should Trees Have Standing? Toward Legal Rights for Natural Objects" In Louis Pojman and Paul Pojman (eds). *Environmental Ethics: Readings in Theory and Application.* 5th edition. Australia; Belmont, Calif.: Thomson Wadsworth. 2008.

Stone, Michael. *Awake in the World: Teachings from Yoga and Buddhism for Living an Engaged Life*. Shambala Publications. 2011.

Taylor, Paul W. *Letter to Professor Claudia Card*. 15 April 1994 (Copy in Author's Possession).

———. '"Preface" to the Chinese Translation'. In *Respect for Nature: A Theory of Environmental Ethics*. Institute of Philosophy at the Chinese Academy of Sciences. 2004.

———. *Respect for Nature: A Theory of Environmental Ethics*. Princeton, N.J.; Woodstock: Princeton University Press, 1986.

———. "The Ethics of Respect for Nature". In David Keller (ed.) *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010: 175–82

Thoreau, Henry David. *Walden: A Life in the Woods*. New York: Ticknor and Fields. Dover Thrift Editions. 1854.

Trinity College Dublin: News Article on Sustainable and Pollinator-Supporting Gardens: https://www.tcd.ie/news_events/articles/trinity-researchers-showcase-pollinator-and-sustainability-friendly-gardens-at-bloom/

Varner, Gary E. *Personhood, Ethics, and Animal Cognition: Situating Animals in Hare's Two Level Utilitarianism*. New York: Oxford University Press. 2012.

Vogel, Lawrence. 'Does Environmental Ethics Need a Metaphysical Grounding?' *The Hastings Center Report* 25, no. 7 (1 January 1995): 30–39. https://doi.org/10.2307/3528006.

Vogel, Steven. 'Nature as Origin and Difference On Environmental Philosophy and Continental Thought'. *Philosophy Today*, 1998, 169–81.

Watson, Richard A. 'A Critique of Anti-Anthropocentric Biocentrism': *Environmental Ethics* 5, no. 3 (1983): 245–56.

Watts, Alan W. *The Way of Zen*. New York: Vintage. 1999.

Weisse, Mikaela and Elizabeth Dow Goldman "Global Tree Cover Loss Rose 51 Percent in 2016". World Resources Institute Website. October 23, 2017. https://www.wri.org/blog/2017/10/global-tree-cover-loss-rose-51-percent-2016.

West, Geoffrey B. *Scale: The Universal Laws of Growth, Innovation, Sustainability, and the Pace of Life in Organisms, Cities, Economies, and Companies*, 2018.

'Which Nations Are Most Responsible for Climate Change? | Environment | theguardian.com'. Accessed 26 January 2019. https://www.theguardian.com/environment/2011/apr/21/countries-responsible-climate-change.

White, Lynn. 'The Historical Roots of Our Ecological Crisis'. *Science* 155, no. 3767 (10 March 1967): 1203–7. https://doi.org/10.1126/science.155.3767.1203.

Wirth, Jason M. 'Dōgen and the Unknown Knowns'. *Environmental Philosophy*. 10. 1. 2013: 39–61.

———. ‘Painting Mountains and Rivers: Gary Snyder, Dōgen, and the Elemental Sutra of the Wild’. In *Wild Times with Gary Snyder*. Hawai’i: hosted by The University of Hawai’i Philosophy Dept, 2012.

———. “Shikantaza during the Sixth Great Extinction”. Essay. www.ecobuddhism.org. n/d.

———. “Extinction Event”. *Philosophy in a Time of Crisis*. https://www.philosophyx.co.uk/wirthextinctionevent

Wolf, Clark. "Environmental Justice and Intergenerational Debt" in David Keller (ed.) *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010. 545 – 550.

Wolfe, Ross. ‘Man and Nature’. Ben Woodward and Timothy Morton (eds). *Thinking Nature* 1, no. 1 (2011).

https://www.wri.org/blog/2017/10/global-tree-cover-loss-rose-51-percent-2016

Woodward, Ben. “Thinking Against Nature: Nature, Ideation and Realism between Lovecraft and Schelling”. In Paul Ennis (ed.). *Speculations I: A Journal of Speculative Realism*. Publisher Unknown. 2010.

Zimmerman, Robert. “What Can Continental Philosophy Contribute to Environmentalism?” In Robert Frodeman (ed.). *Rethinking Nature: Essays in Environmental Philosophy*. Bloomington, IN: Indiana University Press. 2004: 207–29.

Further Reading

Acevedo, Miguel F., J. Baird Callicott, Michael Monticino, Donald Lyons, Jenny Palomino, Judith Rosales, Luz Delgado, et al. "Models of Natural and Human Dynamics in Forest Landscapes: Cross-Site and Cross-Cultural Synthesis". *Geoforum*. 39. 2. March 2008: 846–66. https://doi.org/10.1016/j.geoforum.2006.10.008.

Almond, Brenda, and Donald Hill. *Applied Philosophy: Morals and Metaphysics in Contemporary Debate*. London [etc.]: Routledge. 1991.

Annila, Arto, and Stanley N. Salthe. "The Physical Foundations of Evolutionary Theory". *Journal of Non-Equilibrium Thermodynamics*. 35. 2010: 301–321.

Attfield, Robin. *Creation, Evolution and Meaning*. Ashgate. 2006.

———. *The Ethics of Environmental Concern*. Athens, Ga.: University of Georgia Press, 1991.

———. *The Ethics of the Environment*. Ashgate, 2008.

Austin, James H. *Zen-Brain Reflections*. 1st edition. Cambridge, Mass.; London: MIT Press. 2010.

Barry, John. *Rethinking Green Politics: Nature, Virtue and Progress*. London; Thousand Oaks, Calif: SAGE. 1999.

Beckerman, Wilfred, and Joanna Pasek. In Keller, David (ed.). "In Defense of Anthropocentrism". In *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell. 2010.

Beddoe, A. E., and S. O. Murphy. "Does Mindfulness Decrease Stress and Foster Empathy among Nursing Students?" *Journal of Nursing Education*. 43. 7. 2004: 305–12.

Booth, Kate I. "Deep Ecology, Hybrid Geographies, and Environmental Management's Relational Premise". *Environmental Values*. 22. 4. 1 August 2013: 523–43.

Brennan, Andrew. "Globalization, Environmental Policy and the Ethics of Place". *Ethics, Place & Environment* 9, no. 2 (2006): 133–48. https://doi.org/10.1080/13668790600694535.

Brown, Lester R, and Ed Ayres. *The World Watch Reader on Global Environmental Issues*. New York: Norton. 1998.

Brundtland Report. "Our Common Future (1987)". International Institute for Sustainable Development. Website. https://www.iisd.org/topic/sustainable-development.

Burgess-Jackson, Keith. "Animal Ethics: J. Baird Callicott on Environmental Ethics". http://animalethics.blogspot.ie/2009/03/j-baird-callicott-on-environmental.html.

Callicott, J. Baird. *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback*. University of California Press, 1994.

———. 'Ecology and Moral Ontology'. In Donato Bergandi (ed.). *The Structural Links between Ecology, Evolution and Ethics*. Dordrecht: Springer Netherlands. 2012: 101–16 http://link.springer.com/10.1007/978-94-007-5067-8_7.

———. "Environmental Ethics: An Overview", n.d. http://bob-hall.net/callicott.html.

———. "Animal Liberation: A Triangular Affair". *Environmental Ethics*. 2. 4. 1980: 311-338.

———. "Hume's Is/Ought Dichtomy and the Relation of Ecology to Leopold's Land Ethic". *Environmental Ethics*. 4. 2. 1982: 163–74.

———. "Traditional American Indian and Western European Attitudes toward Nature: An Overview". *Environmental Ethics*. 4. 4. 1982: 293–318.

Cárdenas, Juan-Camilo, and Elinor Ostrom. *What Do People Bring into the Game: Experiments in the Field About Cooperation in the Commons*. Artefactual Field Experiments, The Field Experiments Website. 2004.

Cockell, Charles S. "Microbial Rights?" *EMBO Reports*. 12. 3. 3 March 2011: 181. https://doi.org/10.1038/embor.2011.13.

Connelly, James. "Respecting Nature?" *Res Publica*. 12. 1. 1 April 2006: 97–108. https://doi.org/10.1007/s11158-006-0008-2.

Cook, Francis. "Enlightenment in Dōgen's Zen". In A. K. Narain (ed.). *The Journal of the International Association of Buddhist Studies*. 6. 1. 1983.

Darwin, Charles. *On the Origin of Species: By Means of Natural Selection Or the Preservation of Favored Races in the Struggle for Life*. Cosimo, Inc. 2007.

———. *The Descent of Man, and Selection in Relation to Sex*. D. Appleton, 1872.

Deforestation Statistics Website: "Our World In Data". https://ourworldindata.org/.

Duddy, Thomas. 'Ethics and the Environment'. Limerick, unknown. http://www.minerva.mic.ul.ie/vol1/paper4.html.

Dunlap, Riley E, and Angela G Mertig. *American Environmentalism: The U.S. Environmental Movement, 1970-1990*. Philadelphia: Taylor & Francis. 1992.

Elliot, Robert, and Arran Gare. *Environmental Philosophy: A Collection of Readings*. St. Lucia, Queensland; New York: University of Queensland Press. 1983.

"EY Financial Services - Europe | Governing Financial Services' Common-Pool Resources: How Ostrom's Game Theory Could Lead to Policy Improvement - EY - Global". Accessed 14 January 2019. https://www.ey.com/gl/en/industries/financial-services/fso-insights-governing-financial-services-common-pool-resources-how-ostroms-game-theory-could-lead-to-policy-improvement.

Feinberg, Joel, and Jan Narveson. "The Nature and Value of Rights". *Journal of Value Inquiry*. 4. 1970: 243–260.

Foltz, Bruce V., and Robert Frodeman. *Rethinking Nature: Essays in Environmental Philosophy*. Indiana University Press, 2004.

Hunt, W. Murray. "Are Mere Things Morally Considerable?" *Environmental Ethics*. 2. 1. 1980: 59–65.

Intergovernmental Panel On Climate Change Website: https://www.ipcc.ch/

James, Simon P. "Philistinism and the Preservation of Nature". *Philosophy*. 88. 1. 2013: 101–114.

———. "For the Sake of a Stone? Inanimate Things and the Demands of Morality". *Inquiry*. 54. 4. 2011: 384–397.

Joyce, Richard. *The Evolution of Morality*. Cambridge, Mass.: MIT Press. 2007.

King, Roger J. H. "Feral Animals and the Restoration of Nature". *Between the Species* 13. 9. 2009.

———. "How to Construe Nature: Environmental Ethics and the Interpretation of Nature". In David Keller (ed.). *Environmental Ethics: The Big Questions*. Chichester: Wiley-Blackwell, 2010: 352–59.

Leonard, Liam. 'Environmentalism in Ireland: Ecological Modernisation versus Populist Rural Sentiment'. *Environmental Values* 16, no. 4 (1 November 2007): 463–83. https://doi.org/10.3197/096327107X243240.

Light, Andrew, and Jonathan M. Smith. *Space, Place, and Environmental Ethics*. Rowman & Littlefield. 1997.

Lombardi, Louis G. "Inherent Worth, Respect, and Rights". *Environmental Ethics*. 5. 3. 1983: 257–270.

Lovelock, James. *The Ages of Gaia: A Biography of Our Living Earth*. New York: Norton. 1995.

———. *Strictly Science: James Lovelock Inventor of Gaia Theory Shares His Hopes and Fears for the Future*. 2013. http://www.youtube.com/watch?v=CIgQIgrlLoA&feature=youtube_gdata_player.

Margulis, Lynn. *Symbiotic Planet: A New Look at Evolution*. New York: Basic Books, 2000.

McCormick Amanda R., Hoellein Timothy J., London Maxwell G., Hittie Joshua, Scott John W., and Kelly John J. "Microplastic in Surface Waters of Urban Rivers: Concentration, Sources, and Associated Bacterial Assemblages". *Ecosphere*. 7. 11. 8 November 2016: e01556. https://doi.org/10.1002/ecs2.1556.

McKinnell, Elizabeth. "Environmental Rights". Doctoral, Durham University, 2010. http://etheses.dur.ac.uk/261/.

Milton, Kay. *Loving Nature: Towards an Ecology of Emotion*. Routledge, 2002.

Mizzoni, John. "Franciscan Biocentrism and the Franciscan Tradition". *Ethics and the Environment* .13. 1. 2008: 121–134.

Morton, Timothy. "Ecology after Capitalism". *Polygraph*. Duke University. 2. 2010: 46–59.

'Ostrom - Rules Games Ch1.Pdf'. Accessed 14 January 2019. http://web.boun.edu.tr/ali.saysel/ESc59M/Ostrom%20-%20Rules%20Games%20Ch1.pdf

Palmer, Clare. "'Respect for Nature' in the Earth Charter: The Value of Species and the Value of Individuals". *Ethics, Place & Environment*. 7. 1–2. 2004: 97–107. https://doi.org/10.1080/1366879042000264804.

Parkes, Graham. 'Awe and Humility in the Face of Things': *European Journal for Philosophy of Religion* 4, no. 3 (2012).

———. 'Awe and Humility in the Face of Things: Somatic Practice in East-Asian Philosophies (2012)'. Accessed 16 January 2014. https://www.academia.edu/2281469/Awe_and_Humility_in_the_Face_of_Things_Somatic_Practice_in_East-Asian_Philosophies_2012_

———. 'Winds, Waters, and Earth Energies: Fengshui and Sense of Place'. In *Nature Across Cultures*, edited by Helaine Selin, 185–209. Science Across Cultures: The History of Non-Western Science 4. Springer Netherlands, 2003. http://link.springer.com/chapter/10.1007/978-94-017-0149-5_10.

———. "Zhuangzi and Nietzsche on the Human and Nature". *Environmental Philosophy*. 10. 1. 2013: 1–24.

———. "Nietzsche on Soul in Nature: An Ecological Perspective". Presentation at Conference *Nietzsche on Mind and Nature*. St Peter's College, Oxford, UK. 11-13 Sept 2009. http://www.nietzsche-news.org/1346/.

Pojman, Louis P, and Paul Pojman. *Environmental Ethics: Readings in Theory and Application*. Boston, Mass.: Wadsworth. 2012.

Rawls, John. *A Theory of Justice*. Cambridge, Mass.: Belknap Press of Harvard University Press. 1999.

Rowe, Stan. "Book Review: Discordant Harmonies, A New Ecology for the 21st Century". *Trumpeter*. 12. 4. 2 October 1995. http://trumpeter.athabascau.ca/index.php/trumpet/article/view/292.

Schmidtz, David. "Are All Species Equal?" *Journal of Applied Philosophy*. 15. 1. 1998: 57–67. https://doi.org/10.1111/1468-5930.00073.

Slingerland, Edward, and Mark Collard. *Creating Consilience: Integrating the Sciences and the Humanities*. New York: Oxford University Press. 2011.

Sterba, James P. "A Biocentrist Strikes Back". *Environmental Ethics*. 20. 4. 1998: 361–376.

———. *From Rationality to Equality*. Oxford: Oxford University Press. 2013.

Vanderburgh, William. 'Saving the World Is a Universal Duty: Comment on Baer'. *Ethics, Place & Environment* 12, no. 3 (2009): 309–12. https://doi.org/10.1080/13668790903237743.

We Are All Cyborgs Now. Accessed 26 February 2014. http://www.ted.com/talks/amber_case_we_are_all_cyborgs_now.html.

Index

W

Z