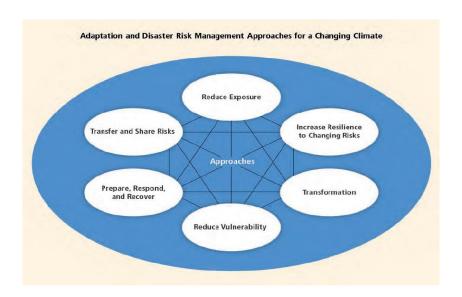
Climate Philosophy Newsletter

Volume 5 (2011/2012)



G. A. Meehl (NCAR), 9 Apr '12, Washington Post

"The contiguous United States experienced the warmest March ever in the warmest start of the year ever in the warmest 12-month period ever, according to new data from the National Oceanic and Atmospheric Administration."

Staff writer, 9 Apr '12, Common Dreams

"There is currently no tax on carbon or even any pressure to live and act responsibly in the U.S."

Jason Mraz, 28 Apr '12, Huffington Post

[&]quot;Everybody has this uneasy feeling. This is weird. This is not good."

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Cover page picture taken from "Summary for Policymakers", p. 2, in C. B. Field et al. (eds.) *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (the SREX Report April 2012), A special report of Working Groups I and II of the IPCC (Cambridge/New York: Cambridge University Press, 2012), SPM 2.

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Welcome

Several years ago, and by 2010 at the latest, it had become safe to say that Climate Ethics is a strong new branch on the Tree of Philosophy. The massive amount of philosophical research on climate change since then is nothing short of astounding. Climate Ethics today is not only far brawnier than it was twelve months ago, but has also branched out into analytic and continental approaches (whose most recent additions are appropriations of Derrida or Levinas). They are joined by Climate Virtue Ethics and the synthetic, critical, and comparative approaches in Climate Philosophy (e.g. those based on Inuit wisdom, African sagacity, Laozi, and Confucius). Add to this climatology-specific work in Philosophy of Science and in Logic (e.g. on formal languages for climatological communication), and entirely new normative inquiries, such as Solar Radiation Management Ethics. There is also remarkable work done outside the discipline and relevant for philosophers, such as the examination of climate change and its consequences by scholars in Genocide Studies.

So we see now qualitative leaps of innovation. You find specific entries in the "Research" section below (pp. 3-26). This bibliography is three times as long as the bibliography the year before. Whenever I was surprised by a line of inquiry I had never seen before—admittedly my criterion of selection was the opposite of déjà vu, in other words: sheer ignorance—I put details in the "Highlights" section (pp. 27-37).

"Word Clouds" (p. 38) and "Another Planet; Another Paradigm" (p. 39) are comments on differentiating analytic Climate Ethics from synthetic Climate Philosophy. They are sequels to the essay in the previous *Climate Philosophy Newsletter*, "From Climate Ethics to Climate Philosophy". A source of inspiration for this now clearer delineation was the provocative (at least to me) Arnold-review by Kristin Shrader-Frechette in *Notre Dame Philosophical Reviews* last summer. Thanks are owed.

T. Heyd at Victoria is planning a climate-related Symposium at the intersection of Philosophy, Anthropology, and Archeology. Details are in the "Call for Papers" (p. 40). B. Hale and colleagues at Colorado are organizing a climate-related Conference on the History and Philosophy of Science. Again, details are in the "Call for Papers" (p. 41). Please note that the date for submitting abstracts is May 15. A. Winters and J. Minnick at the University of South Florida contributed two reviews of valuable recent publications, Gardiner's *Perfect Storm* (p. 44), and *Future Ethics* ed. by Skrimshire (p. 48).

When compiling the newsletter, I observed that the growth of climate-related philosophical investigations is now met with a greater degree of *ressentiment*, as Nietzsche would have put it. This year and last it had become all but impossible to distribute climate-related research inquiries through the regional network of the Florida Philosophical Association. This professional organization has been firmly in the hands of analytic colleagues with skepticist leanings since the fall of 2010. Since analytic philosophers elsewhere have been instrumental in integrating the topic of climate into our discipline, this is quite ironic. The local resistance, with Florida standing firm against Gaia, is amazing and amusing, and surely newsworthy.

Thank you all for your numerous and valuable contributions, and enjoy!

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Research

Thanks to Laura McAllister and Katharyn Hogan, both at USF, for getting the bibliographical ball rolling. The compilation is incomplete, and we apologize for any omissions. Kindly alert us (mschonfe @ usf.edu) if you notice something that has been left out or is in need of correction. Thanks are also owed to William Grove-Fanning (TRINITY), website manager of *International Society for Environmental Ethics*.

Alan Abelsohn (TORONTO): see O'Hara

W. Neil Adger (EAST ANGLIA) and Sophie Nicholson-Cole (EAST ANGLIA) wrote "Ethical dimensions of adapting to climate change imposed risks" in Arnold, ed. (2011): 255-271.

Dave Aftandilian (TEXAS CHRISTIAN) wrote "What other Americans can and cannot learn from Native American Environmental Ethics," *Worldviews: Environment, Culture, Religion* 15 (2011): 219-246.

Glen S. Aikenhead (SASKATCHEWAN) and Herman Michell (FIRST NATIONS UNIVERSITY-CANADA) wrote *Bridging Cultures: Scientific and Indigenous Ways of Knowing Nature* (Toronto: Pearson, 2011).

Gulnara Aitpaeva (NATIONAL STATE U OF KYRGYZSTAN) wrote "Jaichylyk: harmonizing the will of Nature and human needs," in Gerten/Bergmann, ed. (2012), 236-260.

John Andersen (CALIFORNIA-RIVERSIDE) reviewed *Dark Green Religion: Nature, Spirituality, and the Planetary Future* by Bron Taylor, in *Journal for the Study of Religion, Nature, and Culture* 5 (2011): 244-245.

Denis G. Arnold (NORTH CAROLINA) edited *The Ethics of Global Climate Change* (Cambridge: Cambridge University Press, 2011).

Jonas Anshelm (LINKOPINGS) wrote with Anders Hansson (LINKOPINGS) "Climate change and the convergence between ENGO's and business: on the loss of utopian energies," *Environmental Values* 20 (2011): 75-94. (An "ENGO" is an environmental non-governmental organization.)

William Antholis (BROOKINGS INSTITUTION) wrote, with Strobe Talbott (BROOKINGS INSTITUTION), *Fast Forward: Ethics and Politics in the Age of Global Warming* (Washington, DC: Brookings Institution Press, 2011).

Simon Appolloni (TORONTO) reviewed Tim Leduc (2011) in *Worldviews: Environment, Culture, Religion* 16 (2012): 104-106

Seema Arora-Jonsson (SWEDISH U OF AGRICULTURAL SCIENCES) wrote "Virtue and vulnerability: discourses on women, gender, and climate change," *Global Environmental Change* 21 (2011): 744-751.

Robin Attfield (CARDIFF) wrote "Nolt, future harm, and future quality of life," Ethics, Policy, and Environment 14(1) (2011): 11-13. (Attfield refers to John Nolt, Professor of Philosophy at the University of Tennessee in Knoxville. See the entry for Nolt below. See also the entry for Hartzell.—MS.) Recently, Robin Attfield also published "Mediated responsibilities, global warming and the scope of ethics", in Ruth Irwin (ed.) Climate Change and Philosophy (London: Continuum, 2010), 183-196 (a revised and expanded version of a paper that appeared in 2009 in *Journal of Social Philosophy*); "Global warming, equity and future generations," *Human Ecology Review* 17 (2010): 102-105; "Climate change: the ethical dimension', in Matteo Mascia and Lucia Mariani (eds), Ethics and Climate Change: Scenarios for Justice and Sustainability (Padua: CLEUP, 2010), 77-84 (the collection is based on the Fondazione Lanza international conference on climate change, Padua, Oct 2008); "Reply to Dower," in Rebekah Humphreys and Sophie Vlacos (eds), Creation, Ethics and Environment (Cambridge: Cambridge Scholars Press, 2010), 33-37; "Global warming, equity and future generations," Ludus Vitalis, Journal of Philosophy of Life Sciences (Mexico) 18 (2010): 185-189; "The moral case for climate change mitigation,", WalesHome.org (a website about politics in Wales), Nov 2010; "Climate change, environmental ethics, and biocentrism' in Ved Nanda (ed.), Climate Change and Environmental Ethics, (New Brunswick, NJ/London: Transaction, 2011), 31-41; "Reflections on the Cancun Conference of 2010," translated by Carmen Velayos Castelo as "Reflexiones sobre la Conferencia de Cancun de 2010," in Dilemata (Spain), 6 May 2011, 47-51; and "Sustainability," forthcoming in Hugh LaFollette (ed.), International Encyclopedia of Ethics (Malden, MA: Wiley-Blackwell, 2012). Dr. Attfield just published Ethics: An Overview (London/New York: Continuum, 2012), and is currently working on the second edition of Environmental Ethics: An Overview for the Twenty-First Century, forthcoming with Polity Press, Cambridge, and Blackwell, Malden in 2013.

David L. Barnhill (WISCONSIN-OSKOSH) wrote "Conceiving ecotopia," *Journal for the Study of Religion, Nature, and Culture* 5 (2011): 126-144.

John Barry (QUEEN'S UNIVERSITY BELFAST), who is co-editor of *Environmental Politics*, has just published *The Politics of Actually Existing Unsustainably: Human Flourishing in a Climate Changed, Carbon Constrained World* (Oxford: Oxford University Press, 2012). The OUP catalogue information (URL http://ukcatalogue.oup.com/product/9780199695393.do) includes the following blurb: "Going against both the naive techno-optimism of 'greening business as usual' and a resurgent 'catastrophism' within green thinking and politics, [the book] offers an analysis of the causes of unsustainability and diminished human flourishing. ... [It] locates the causes of unsustainability in dominant capitalist modes of production, debt-based consumerism, and the imperative for orthodox economic growth. It suggests that valuable insights into the causes of and alternatives to unsustainability can be found in a critical embracing of human vulnerability and dependency ... Rather than seeing invulnerability as the appropriate response, the book defends resilience, the ability to 'cope with' rather than 'solve' vulnerability, as a more productive strategy. [The book] offers a trenchant critique of the dominant neoclassical economic groupthink, which ... must be seen not as some value-neutral form of 'expert

knowledge' but as a thoroughly ideological 'common sense' that has corrupted and limited creative ways of thinking about and through our current predicament. It offers a green political economic alternative which replaces economic growth with economic security, and views economic growth as having done its work in the minority, affluent world, which should now focus on human flourishing and lowering socioeconomic equality and fostering solidarity as part of that new re-orientation of public policy."

Roy Bashkar (LONDON) edited, with Karl G. Hoyer (OSLO) and Petter Naess (AALBORG), *Ecophilosophy in a World of Crisis: Critical Realism and the Nordic Contributions* (London: Routledge, 2011).

Antonella Battaglini (POTSDAM INSTITUTE OF CLIMATE IMPACT RESEARCH): see Scheffran

Seth Baum (PENN STATE): see Schienke

Derek Bell (NEWCASTLE) wrote "Does anthropogenic climate change violate human rights?, "*Critical Review of International Social and Political Philosophy* 14 (2011): 99-124 (special issue on *Climate Change and Liberal Priorities*); "Climate duties, human rights and historical emissions," in Paul G. Harris, ed., *China's Responsibility for Climate Change: Ethics, Fairness and Environmental Policy* (Portland/Bristol: Policy Press, 2011): 25-45; "Global climate justice, historic emissions, and excusable ignorance," *The Monist* 94 (2011): 391-411. He edited, with Simon Caney (OXFORD), a special issue of *The Monist*, vol. 94.3 (2011): 305-452, on *Morality and Climate Change*, in which this article appeared, and for which he wrote, with S. Caney, the foreword, "Morality and climate change," p. 305-309. See McKinnon. See also **clouds**.

Jeremy Bendik-Keymer (CASE WESTERN) wrote "The sixth mass extinction is caused by us," in Thompson & Bendik-Keymer, eds. (2012), 263-280. See <a href="https://high.nih.gov/high.gov/high.nih.gov/high.nih.gov/high.nih.gov/high.gov/high.nih.gov/high.nih

Sigurd Bergmann (TRONDHEIM) edited, with Dieter Gerten (POTSDAM INSTITUTE OF CLIMATE IMPACT RESEARCH), *Religion in Environmental and Climate Change: Suffering, Values, Lifestyles* (London: Continuum, 2012), for which he wrote, with Dieter Gerten, the preface, "Facing the human faces of climate change," p. 3-15.

Lea Berrang-Ford (MCGILL): see Ford

Gregor Betz (KARLSRUHE INSTITUTE OF TECHNOLOGY) prepared, with Sebastian Cacean (KARLSRUHE INSTITUTE OF TECHNOLOGY) a moral map: "The moral controversy of climate engineering (CE)," which went into a comprehensive interdisciplinary assessment of CE by Rickels, W.; Klepper, G.; Dovern, J.; Betz, G.; Brachatzek, N.; Cacean, S.; Güssow, K.; Heintzenberg J.; Hiller, S.; Hoose, C.; Leisner, T.; Oschlies, A.; Platt, U.; Proelß, A.; Renn, O.; Schäfer, S.; Zürn M. (2011): Large-Scale Intentional Interventions into the Climate System? Assessing the Climate Engineering Debate. Scoping report conducted on behalf of the German Federal Ministry of Education and Research (BMBF) Kiel: Kiel Earth Institute, 2011, 170 pp. See highlights.

Jason Blackstone (CAMBRIDGE) edited *The Governance of Climate Geoengineering: Science, Ethics, Politics, and Law* (London: Earthscan, 2012)

Andreas De Block (LEUVEN): see Joyce

Megan Blomfield (BRISTOL) has a paper titled "Global common resources and the just distribution of emission shares" forthcoming in the *Journal of Political Philosophy*.

The Blue River Quorum issued *The Blue River Declaration: An Ethic of the Earth* published in *Minding Nature* 4.3 (2011): 10-12.

Greg Bognar (NEW YORK) wrote "Can the Maximin Principle serve as a basis for climate change - policy?" *The Monist* 94 (2011): 329-48; and "Respect for nature," *Ethics, Policy, and Environment* 14 (2011): 147-149.

Luc Bovens (LONDON SCHOOL OF ECONOMICS) wrote "A Lockean defense of grandfathering emission rights" in Arnold, ed. (2011): 124-144.

Bruce Bromley (NEW YORK) wrote "The other world is here: on images, desire, and climate change," *Environmental Philosophy* 8 (2011): 101-119.

Thom Brooks (NEWCASTLE) edited four books: *Ethics and Moral Philosophy* (Boston: Leiden, 2011); *New Waves in Ethics* (Basingstoke: Macmillan, 2011); *Global Justice and International Affairs* (Boston: Leiden, 2012); and *Justice and the Capabilities Approach* (Aldershot: Ashgate, 2012). Dr. Brooks wrote "Respect for Nature: the capabilities approach," *Ethics, Policy and Environment* 14 (2011): 143-46; "Climate change and negative duties," *Politics* 32 (2012): 1-9; "After Fukushima Daiichi: the importance of global institutions for nuclear power policy," *Ethics, Policy and Environment* 15 (2012): 63-69

Donald A. Brown (PENN STATE): see Lemons

Sid Brown (SEWANEE) reviewed *Engaging Voices: Tales of Morality and Meaning in an Age of Global Warming* by Roger S. Gottlieb (WORCESTER POLYTECHNIC INSTITUTE) in *Worldviews: Environment, Culture, and Religion* 16 (2012): 102-106.

Bunyan Bryant (MICHIGAN) edited *Environmental Crisis or Crisis of Epistemology? Working for Sustainable Knowledge and Environmental Justice* (New York/Hampton: Morgan James, 2011).

Jason Byrne (GRIFFITH) wrote "The human relationship with nature: rights of animals and plants in the urban context," *The Routledge Handbook of Urban Ecology*, ed. by Ian Douglas, David Goode, Mike Houck, and Rusong Wang (London: Taylor & Francis, 2011).

Sebastian Cacean (KARLSRUHE INSTITUTE OF TECHNOLOGY): see Betz, and see also highlights.

Philip Cafaro (COLORADO STATE) wrote "Taming growth and articulating a sustainable future: the way forward for environmental ethics," *Ethics & the Environment* 16 (2011): 1-24; "Beyond business as usual: alternative wedges to avoid catastrophic climate change and create sustainable societies" in Arnold, ed. (2011): 192-215; and "Climate ethics and population policy," *WIREs Climate Change* 3 (2012): 45-61.

Gideon Calder (WALES-NEWPORT) wrote "Climate change and normativity: constructivism versus realism," *Critical Review of International Social and Political Philosophy* 14 (2011): 153-169; and, with Catriona McKinnon (READING) "Introduction: climate change and liberal priorities," *Critical Review of International Social and Political Philosophy* 14 (2011): 91-97. See also McKinnon and Calder, ed. (2011).

J Baird Callicott (NORTH TEXAS) wrote "The temporal and spatial scales of global climate change and the limits of individualistic and rationalistic ethics," *Royal Institute of Philosophy Supplement* 69 (2011): 101-116.

Simon Caney (OXFORD) wrote, with Cameron Hepburn (OXFORD), "Carbon trading: unethical, unjust and ineffective?" *Royal Institute of Philosophy Supplement* 69 (2011): 201-234; he wrote "Morality and Climate Change," *The Monist* 94 (2011): 305-9; and he edited, with Derek Bell (NEWCASTLE), the special issue on "Morality and Climate Change" of *The Monist*, vol. 94.3, in which this article appeared. See also **clouds**.

Sanya Carley (INDIANA) wrote "Normative dimensions of sustainable energy policy," *Ethics, Policy & Environment* 14 (2011): 211-229.

Alan Carter (GLASGOW) wrote "Environmental ethics," in *Understanding the Environment and Social Policy*, edited by Tony Fitzpatrick (Bristol: Policy Press, 2011).

Xiang Chen (CALIFORNIA LUTHERAN U) wrote "Why do people misunderstand climate change? Heuristics, mental models, and ontological assumptions," *Climatic Change* 108 (2011) 391-410

Boyd Cohen (SIMON FRASER): see Lovins

Susan Crate (GEORGE MASON) wrote "Climate and cosmology: exploring Sakha belief and the local effects of unprecedented change in northeastern Siberia," in Gerten/Bergmann, ed. (2012), 175-199.

Elizabeth Cripps (EDINBURGH) wrote "Climate change, collective harm and legitimate coercion," *Critical Review of International Social and Political Philosophy* 14 (2011): 171-193; "Where are we now: climate ethics and future challenges," *Climate Law* 2 (2011): 117-13. See also McKinnon.

Neil Paul Cummins (AUTHOR/UNITED KINGDOM) wrote Saviours or Destroyers: The Relationship between the Human Species and the Rest of Life on Earth (in press); An Evolutionary Perspective on the Relationship between Humans and Their Surroundings: Geoengineering, the Purpose of Life & the Nature of the Universe (2012); Is the Human Species Special? Why human-induced global warming could

be in the interests of life (2011); What Does It Mean to be 'Green'? (2010). All are available through Cranmore Publ. and amazon.com. For more, visit Dr. Cummins' blog at http://neilpaulcummins.blogspot.co.uk/.

Chris J. Cuomo (GEORGIA) wrote "Climate change, vulnerability and responsibility," *Hypatia* 26 (2011): 690-714.

Ken Davis (PENN STATE): see Schienke

Celia Deane-Drummond (CHESTER) wrote "A case for collective conscience: Climategate, COP-15, and climate justice," *Studies in Christian Ethics* 24 (2011): 5-22.

Jan Deckers (NEWCASTLE) wrote "Justice, negative GHIs, and the consumption of farmed animal products," *Journal of Global Ethics* 7 (2011): 205-216; also forthcoming in Schönfeld, ed. (2012). ('GHI' means 'Global Health Impact,' a unit of measurement to evaluate the effects of human actions on the health of human and nonhuman organisms.)

Tim Delaney (SUNY-OSWEGO) edited a special issue on *Sustainability* for *Philosophy Now* 88 (2012).

Michael W. DeLashmutt (EXETER) wrote "Church and climate change: an examination of the attitudes and practices of Cornish Anglican churches regarding the environment," *Journal for the Study of Religion, Nature, and Culture* 5 (2011): 61-81.

Henry Dicks (BOURGOGNE) wrote "The self-poetizing Earth: Heidegger, Santiago Theory, and Gaia Theory," *Environmental Philosophy* 8 (2011): 41-61. See **highlights**.

Christian Diem (WISCONSIN-STEVENS POINT): see Edelglass

Lisa Dilling (COLORADO-BOULDER): see Hale

Martin Drenthen (RADBOUD) wrote "Ecocentrism as Anthropocentrism," *Ethics, Policy & Environment* 14 (2011): 151-154; see also de Groot

John Dryzek (AUSTRALIAN NATIONAL U) edited, with Richard B. Norgaard (U CAL-BERKELEY) and David Schlosberg (SYDNEY), *The Oxford Handbook of Climate Change and Society* (New York/Oxford: Oxford University Press, 2011)

Christope Dupont (J CRAIG VENTER INSTITUTE) wrote *Four Views of Global Warming: Severe Danger, Mild Danger, Denial, Positive Event* (Eastborne, UK: Gardners, 2011).

Riley Dunlap (OKLAHOMA STATE) wrote, with Aaron M. McCright (WASHINGTON STATE), "Organized climate change denial," *The Oxford Handbook of Climate Change and Society*, ed. John S. Dryzek, Richard B. Norgaard, and David Scholsberg (Oxford/New York: Oxford University Press, 2011).

William Edelglass (MARLBORO COLLEGE) edited, together with James Hatley (SALISBURY) and Christian Diem (WISCONSIN-STEVENS POINT), *Facing Nature: Levinas and Environmental Philosophy* (Pittsburgh: Duquesne University, 2012), 209-228. See highlights.

Ramon de Elia (OURANOS CONSORTIUM-MONTREAL) wrote "Basis of a formal language for facilitating communication among climate modelers," *Climate Dynamics* (2011), 11 p. doi:10.1007/s00382-011-1265-0. See **highlights**.

Georgina Endfield (NOTTINGHAM) wrote, with Carol Morris (NOTTINGHAM), "Cultural spaces of climate," *Climatic Change* (2012), 4 pp.; doi 10.1007/s10584-012-0416-6; and "Reculturing and particularizing climate discourses: weather, identity, and the work of Gordon Manley," *Osiris* 26 (2012): 142-162.

Mary R. English (TENNESSE-KNOXVILLE): see Socolow

Richard Evanoff (AOYAMA GAKUIN UNIVERSITY TOKYO) wrote *Bioregionalism and Global Ethics: a Transactional Approach to Achieving Ecological Sustainability, Social Justice, and Human Wellbeing* (New York: Routledge, 2011).

Angus Fane-Hervey (LONDON SCHOOL OF ECONOMIC AND POLITICAL SCIENCE): see Held

James Rodger Fleming (COLBY COLLEGE) edited, with Vladimir Jankovic (MANCHESTER), the special issue *Klima* for the annual *Osiris: A Research Journal devoted to the History of Science and its Cultural Influences* 26 (2012), for which he and Jankovic also wrote the "Introduction: Revisiting Klima", p. 1-18. (Included in the Newsletter bibliography is only the portion of the historical articles that I think is of philosophical interest. The introduction, BTW, is terrific.—MS.)

James D. Ford (MCGILL) edited, with Lea Berrang-Ford (MCGILL), *Climate Change Adaptation in Developed Nations: From Theory to Practice* (Berlin: Springer, 2011).

Matthias Fritsch (CONCORDIA) gave recently a colloquium on Derrida and climate philosophy at the University of Alberta. See **highlights**.

Urte Undine Frömming (FU BERLIN) wrote, with Christian Reichel (FU BERLIN), "Vulnerable coastal regions: indigenous people under climate change in Indonesia," in Gerten/Bergmann, ed. (2012), 215-235.

Stephen M. Gardiner (WASHINGTON) wrote "Ethics and global climate change," *Society, Ethics, and Technology*, ed. Morton Winston and Ralph Edelbach (Wadsworth Publishing, 2011) 362-383; "Rawls and climate change: does Rawlsian political philosophy pass the global test?" *Critical Review of International Social and Political Philosophy* 14 (2011): 125-151; "Some early ethics of geoengineering the climate: a commentary on the values of the Royal Society Report," *Environmental Values* 20 (2011): 163-188; "Is no one responsible for global environmental tragedy? Climate change as a challenge to our

ethical concepts," in Arnold, ed. (2011); "Are we the scum of the Earth? Climate change, geoengineering, and humanity's challenge," in Thompson and Bendik-Keymer, eds. (2012), 241-259; and *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford University Press, 2011). For further information about Dr. Gardiner's research, see also the entries for McKinnon and Thompson, A. See <u>review</u>.

Jay L. Garfield (SMITH COLLEGE/MASSACHUSETTS/MELBOURNE), with William Edelglass (MARLBORO COLLEGE), edited *The Oxford Handbook of World Philosophy* (Oxford: Oxford University Press, 2011). See also Kelbessa.

Robert Garner (LEICESTER) wrote *Environmental Politics: the Age of Climate Change* (New York: Palgrave Macmillan, 2011).

James Garvey (ROYAL INSTITUTE OF PHILOSOPHY) wrote "Climate change and causal inefficacy: Why go green when it makes no difference?" *Royal Institute of Philosophy Supplement* 69 (2011): 157-174. Dr. Garvey adds: "The collected papers from the ROYAL INSTITUTE OF PHILOSOPHY'S LECTURE SERIES, *Philosophy and the Environment*, are now published by Cambridge University Press. It's a good volume, with contributions from Holmes Rolston III, Robin Attfield, Warwick Fox, Brian Garvey, Emily Brady, J Baird Callicott, Chukwumerije Okereke, Allen Carlson, James Garvey, David Wiggins, Simon Caney, Cameron Hepburn, Dieter Helm and Eric Swyngedouw. The UNIVERSITY OF UTRECHT is videoing talks in a series called *Rights to a Green Future*, free download at http://www.uu.nl/faculty/humanities/EN/Current/agenda/Pages/20111114-32-91-583-563-996-green-future.aspx." Dr. Garvey also published an article for *The Guardian* 27 Feb 2012, in the 'climate skepticism' section, "Peter Gleick lied, but was it justified by the wider good?" (URL http://www.guardian.co.uk/environment/2012/feb/27/peter-gleick-heartland-institute-lie) See also Read, and cf. https://www.guardian.co.

P. F. A. de Gechteneire (UNESCO): see Piguet

Bernward Gesang (MANNHEIM) wrote *Klimaethik* [Climate Ethics] (Berlin: Suhrkamp, 2011).

Dieter Gerten (POTSDAM INSTITUTE OF CLIMATE IMPACT RESEARCH), edited with Sigurd Bergmann (TRONDHEIM), *Religion in Environmental and Climate Change: Suffering, Values, Lifestyles* (London: Continuum, 2012), for which he also wrote, with Sigurd Bergmann, the preface, "Facing the human faces of climate change," p. 3-15.

Mickey Gjerris (COPENHAGEN) et al. wrote "The price of responsibility: ethics of animal husbandry in a time of climate change," *Journal of Agricultural and Environmental Ethics* 24 (20110: 331-350.

Trish Glazebrook (DALHOUSIE) wrote "Women and climate change: a case-study from Northeast Ghana," *Hypatia* 26 (2011): 762-782.

Lissy Goralnik (LYMAN BRIGGS) wrote, with Michael P. Nelson (MICHIGAN STATE/LYMAN BRIGGS), "Framing a philosophy of environmental action: Aldo Leopold, John Muir, and the importance of community," *Journal of Environmental Education* 42 (2011): 181-192.

Roger Gottlieb (WORCESTER POLYTECHNIC INSTITUTE) wrote *Engaging voices: Tales of Morality and Meaning in an Age of Global Warming* (Waco, TX: Baylor University Press, 2011), and reviewed Bron Tayler's *Dark Green Religion: Nature, Spirituality, and the Planetary Future* for *Worldviews: Global Religions, Culture, and Ecology* 15 (2011): 120-122. See also: Smith, M.

Gabriele Gramelsberger (BERLIN) "What do numerical (climate) models really represent?" *Studies in History and Philosophy of Science* 42 (2011): 296-302.

John M. Greer (ANCIENT ORDER OF DRUIDS IN AMERICA-AODA).) wrote *Mystery Teachings from the Living Earth: an Introduction to Spiritual Ecology* (San Francisco, Weiser, 2012).

John Griffin (unaffiliated) wrote *On the Origin of Beauty: Ecophilosophy in the Light of Traditional Wisdom* (Bloomington, IN: World Wisdom, 2011).

Mirjam de Groot (RADBOUD) wrote, with Martin Drenthen and Wouter T. de Groot (both at RADBOUD), "Public visions of the human/nature relationship and their implications for environmental ethics," *Environmental Ethics* 33 (2011): 25-44.

Wouter T. de Groot (RADBOUD): see de Groot, Mirjam

Alex Guilherme (DURHAM) wrote "Metaphysics as a basis for Deep Ecology: an enquiry into Spinoza's system," *The Trumpeter* 27 (2011): 60-78.

Benjamin Hale (COLORADO-BOULDER) wrote "Nonrenewable resources and the inevitability of outcomes," *The Monist* 94 (2011): 369-390; he wrote, with Lisa Dilling (COLORADO-BOULDER), "Geoengineering, ocean fertilization, and the problem of permissible pollution," *Science, Technology, and Human Values* 36 (2011): 190-212. Forthcoming are "Getting the bad out: remediation technologies and respect for others," in W. B. Kabasenche et al, eds. *The Environment: Philosophy, Science, and Ethics* (Cambridge: MIT Press), and "The world that would have been: moral hazard arguments against geoengineering," in C. Preston, ed., *Reflecting Sunlight: the Ethics of Solar Radiation Management* (Preston: Rowman & Littlefield). See also highlights. Dr. Hale is the co-editor of the journal *Ethics, Policy, & Environment* published by Routledge. See also conference.

Simon Hailwood (LIVERPOOL): see McKinnon

George B. Handley (BRIGHAM YOUNG) wrote "Faith and the ethics of climate change," *A Journal of Mormon Thought* 44 (2011): 6-35.

Lee J. Hannah (CONSERVATION INTERNATIONAL) edited *Saving a Million Species: Extinction Risk from Climate Change* (Washington, D.C.: Island Press, 2012).

Anders Hansson (LINKOPINGS): see Anshelm

Paul G. Harris (HONG KONG INSTITUTE OF EDUCATION) edited *China's Responsibility for Climate Change: Ethics, Fairness and Environmental Policy* (Portland/Bristol: Policy Press, 2011), and wrote *Ethics and Global Environmental Policy: Cosmopolitan Conceptions of Climate Change* (Cheltenham, UK: Edward Elgar Publishing, 2011).

Lauren Hartzell (WASHINGTON) wrote "Responsibility for emissions: a commentary on John Nolt's 'How harmful are the average American's greenhouse gas emissions?" *Ethics, Policy, and Environment* 14 (2011): 15-17.

Nicole Hassoun (CARNEGIE MELLON) wrote "The anthropocentric advantage? Environmental ethics and climate change policy," *Critical Review of International Social and Political Philosophy* 14 (2011): 235-257. See also McKinnon.

Douglas Hastings (DUKE): see Miranda.

James Hatley (SALISBURY): see Edelglass

Sirkku Hellsten (SOUTH FLORIDA/MAPUTO, MOZAMBIQUE) is currently writing, with Frederick Ochieng-Odhiambo (KENYA/U OF THE WEST INDIES-CAVEHILL), "Climate change, the end of 'development,' and African alternatives," forthcoming in Schönfeld, ed. (2012).

David Held (LONDON SCHOOL OF ECONOMICS), together with Angus Fane-Hervey (LONDON SCHOOL OF ECONOMICS) and Marika Theros (LONDON SCHOOL OF ECONOMICS), edited *The Governance of Climate Change: Science, Politics, and Ethics* (Cambridge: Polity, 2011). (For a 3/21/2012 review in the *Manchester Climate Monthly* blog, see here.—MS.)

Dieter Helm (OXFORD) wrote "Sustainable Consumption, Climate Change and Future Generations," *Royal Institute of Philosophy Supplement* 69 (2011): 235-252

Brian Henning (GONZAGA) wrote "Standing in livestock's 'long shadow': the ethics of eating meat on a small planet," *Ethics and the Environment* 16 (2011): 63-93.

Cameron Hepburn (OXFORD): see Caney

Ernesto O. Hernandez (SOUTH FLORIDA) wrote "Climate change and philosophy in Latin America," *Journal of Global Ethics* 7 (2011): 161-172; also forthcoming in Schönfeld, ed. (2012).

Ned Hettinger (CHARLESTON COLLEGE) wrote "Nature restoration as a paradigm for the human relationship with nature" in Thompson & Bendik-Keymer, eds. (2012), 27-46.

Thomas Heyd (VICTORIA) wrote "Natural disasters and human responsibilities," in R. Feist, C. Beauvais and R. Shukla, eds., *Technology and the Changing Face of Humanity* (Ottawa: University of Ottawa

Press, 2010); "The challenge of climate change, cultural frameworks, and responsibilities to act," in Matteo Mascia & Lucia Mariani (eds.), Ethics and Climate Change: Scenarios for Justice and Sustainability (Padova, Italy: Fondazione Lanza/Coop. Libraria Editrice Università di Padova, 2010), 165-176; "Ethical and prudential responsibilities, culture and climate change," in V. Nanda (ed.), Climate Change and Environmental Ethics (New Brunswick, NJ: Transaction Publishers, 2011), 65-76; "Human security and personal responsibilities in light of climate change defeatism and complacency" in O'Brien, K., Wolf, J., Sygna, L. (eds.), The Changing Environment for Human Security: New Agendas for Research, Policy, and Action (London: Earthscan, in press 2012); and "Rock art and human dimensions of climate change" (together with Tilman Lenssen-Erz), Pleistocene art of the world (forthcoming). Dr. Heyd reports that he gave several climate-related philosophical presentations in 2011: "Responsibilities and climate change" at the Basque Centre for Climate Change, Bilbao, Spain; "Identity and responsibilities regarding climate change" at the Society for Ethics and Political Philosophy, Donostia, Spain; and "The contract with nature in times of climate change" at the International Society for Environmental Ethics, Nijmegen, Netherlands. See also symposium.

Eric Higgs (VICTORIA) wrote "History, novelty, and virtue in ecological restoration," in Thompson & Bendik-Keymer, eds. (2012), 81-101.

Avram Hiller (PORTLAND STATE) wrote "Morally significant effects of ordinary individual actions," *Ethics, Policy & Environment* 14 (2011): 19-21; and "Climate change and individual responsibility," *The Monist* 94 (2011): 349-68.

Paul D. Hirsch (SUNY-ESF) wrote, with Bryan G. Norton (GEORGIA TECH), "Thinking like a planet," in Thompson and Bendik-Keymer, eds. (2012): 317-334.

Michael H. G. Hoffman (GEORGIA INSTITUTE OF TECHNOLOGY) wrote "Climate ethics: Structuring deliberation by means of logical argument mapping," *The Journal of Speculative Philosophy* 25 (2011): 64-97.

Breena Holland (LEHIGH) wrote "Environment as meta-capability: why a dignified human life requires a stable climate system," in Thompson & Bendik-Keymer, eds. (2012), 145-164.

Marion Hourdequin (COLORADO COLLEGE) wrote "Climate change and individual responsibility: a reply to Johnson," *Environmental Values* 20 (2011): 157-62.

Joshua Howe (MONTANA STATE) wrote "History and Climate: A Road Map to Humanistic Scholarship on Climate Change," *Climatic Change* 105 (2011): 357-363.

Karl G. Hoyer (OSLO): see Bhaskar

Christopher Hrynkow (MANITOBA) reviewed Tim LeDuc (2011) in *The Trumpeter* 27 (2011): 108-110.

Mike Hulme (EAST ANGLIA—TYNDALL CENTRE) wrote "Reducing the future to climate: a story of climate determinism and reductionism," *Osiris* 26 (2012): 245-266. See also <u>highlights</u>.

Ruth Irwin (AUCKLAND INSTITUTE OF TECHNOLOGY) edited *Climate Change and Philosophy: Transformational Possibilities* (London: Continuum, 2010).

Pankaj Jain (NORTH TEXAS) wrote *Dharma and Ecology of Hindu Communities: Sustenance and Sustainability* (Farnham, UK: Ashgate, 2011).

Dale Jamieson (NYU) wrote "Climate and Environmental Justice," in Bryant, ed. (2011); "Energy, ethics, and the transformation of nature" in Arnold (2011): 16-37; "The nature of the problem," forthcoming in *The Oxford Handbook of Climate Change and Society* (Oxford, Oxford University, 2012); "Ethics, public policy, and global warming," in Thompson and Bendik-Keymer, eds. (2012), 187-202.

Vladimir Jankovic (MANCHESTER): see Fleming

Bruce B. Janz (CENTRAL FLORIDA) wrote "Watsuji Tetsuro, *Fudo*, and climate change," *Journal of Global Ethics* 7 (2011): 173-184; also forthcoming in Schönfeld, ed. (2012). (*Fudo* [風土] is the Japanese title of Tetsuro Watsuji's *Climate and Culture*, the first philosophical work on climate.—M.S.)

Sanna Joronen (TURKU) wrote with Markku Oksanen (TURKU) and Timo Vuorisalo (TURKU) "Towards weather ethics: from chance to choice with weather modification" in *Ethics, Policy & Environment: A Journal of Philosophy and Geography* 14(1) (2011): 55-67

Yannick Joye (LEUVEN) wrote, with Andreas De Block (LEUVEN), "'Nature and I are two': a critical examination of the biophilia hypothesis," *Environmental Values* 20 (2011): 189-215.

Alice Kaswan (SAN FRANCISCO) wrote "Reconciling justice and efficiency: integrating environmental justice into domestic cap-and-trade programs for controlling greenhouse gases" in Arnold (2011): 232-254

Jason Kawall (COLGATE) wrote "Future harms and current offspring," *Ethics, Policy & Environment* 14 (2011): 23-26; and "Rethinking greed," in Thompson & Bendik-Keymer, eds. (2012), 223-239.

Laurel Kearns (DREW) wrote "Religious climate activism in the United States," in Gerten/Bergmann, eds. (2012), 132-151

Workineh Kelbessa (Adis Ababa) wrote the chapter "Indigenous environmental philosophy" for Garfield and Edelgass, eds. (2011): 574-581; and *Indigenous and Modern Environmental Ethics: a study of the indigenous Oromo environmental ethics and modern issues of environment and development* (Washington, D.C.: Council for Research in Values and Philosophy, 2011).

Klaus Keller (PENN STATE) see Schienke

Tara Kennedy (NEW MEXICO) reviewed *Heidegger and the Earth: Essays in Environmental Philosophy*, ed. by Ladelle McWhorter and Gail Stenstad, for *Environmental Ethics* 33 (2011): 93-96.

Jozef Keulartz (WAGENINEN/RADBOUD) wrote with Jac. A. A. Swart (GRONINGEN) "Animal flourishing and capabilities in an era of global change," in Thompson & Bendik-Keymer, eds. (2012), 123-144

Nathan Kowalsky (ALBERTA): see Fritsch

Sarah Krakoff (COLORADO) wrote "Parenting the Planet" in Arnold (2011): 145-169

Shih-yu Kuo (ACADEMICA SINICA TAIPEI) wrote "Climate change and the ecological intelligence of Confucius," *Journal of Global Ethics* 7 (2011): 185-194; also forthcoming in Schönfeld, ed. (2012).

Hugh LaFollette (SOUTH FLORIDA - ST. PETE): see Attfield

Joseph Lacey (UNIVERSITY COLLEGE DUBLIN) wrote "Climate change and Norman Daniels' theory of just health: an essay on basic needs," *Medicine, Health Care and Philosophy* 15 (2011): 3-14

Unn Laská (LIVERPOOL) reviewed *Climate Ethics*, ed. by Steve Gardiner et al, for *Environmental Values* 20 (2011).

Timothy B. Leduc (YORK) wrote *Climate, Culture, Change: Inuit and Western Dialogues With a Warming North* (Ottawa: University of Ottawa Press, 2011); "Contemplating Climategate: religion and the future of climate research," in Gerten/Bergmann (2012): 46-65; "Ancestral climate wisdom: return to a thoughtful etiquette" in Schönfeld, ed. (2012), in press. See also Appolloni, Hrynkow, and cf. https://doi.org/10.1001/journal.org/ See also Appolloni, Hrynkow, and cf. https://doi.org/10.1001/journal.org/

John Lemons (NEW ENGLAND) wrote "The urgent need for universities to comprehensively address global climate change across disciplines and programs," *Environmental Management* 48 (2011): 379-391; he also wrote, with Donald A. Brown (PENN STATE) "Global climate change and non-violent civil disobedience" published in *Ethics in Science and Environmental Politics* 11 (2011): 3-12.

Andrew Light (GEORGE MASON) wrote "The death of restoration?" in Thompson & Bendik-Keymer, eds. (2012), 105-121.

Qi Feng Lin (McGILL) wrote "Knowing with one's whole being," *Minding Nature* 4.1 (2011): 27-30; and "The historical sense of Being in the writings of Aldo Leopold," *Minding Nature* 4.3 (2011): 13-19.

Diana Liverman (ARIZONA): see Richardson

David N. Livingstone (QUEEN'S U-BELFAST) wrote "Reflections on the cultural spaces of climate," *Climatic Change* (2012), 3 pp., doi 10.1007/s10584-012-0409-5

Friedrich Lohmann (HUMBOLDT U BERLIN) wrote "Climate justice and the intrinsic value of Creation: the Christian understanding of Creation and its holistic implications," in Gerten/Bergmann, eds. (2012), 85-106.

Graham Long (NEWCASTLE) wrote "Disagreement and response to climate change," *Environmental Values* 20 (2011): 503-525.

Lliane Loots (HOWARD COLLEGE/UNIVERSITY OF KWAZULA-NATAL) wrote "Revisiting gender ecology and eco-feminism: a profile of five contemporary women water activists," *Agenda* 25 (2011): 6-16.

Hunter Lovins (BAINBRIDGE GRADUATE INSTITUTE) and Boyd Cohen (SIMON FRASER) wrote *Climate Capitalism: Capitalism in the Age of Climate Change* (Hill and Wang, 2011).

Wolfgang Lucht (POTSDAM INSTITUTE OF CLIMATE IMPACT RESEARCH) wrote "Global change and the need for new cosmologies," in Gerten/Bergmann, ed. (2012), 16-31.

Mark Lynas (OXFORD) wrote *The God Species: Saving the Planet in the Age of Humans* (Des Moines/Washington, DC: National Geographic, 2011).

Ezra M. Markowitz (OREGON-EUGENE) wrote "Is climate change an ethical issue? Examining young adults' beliefs about climate and morality," *Climatic Change* (2012) 17 pp. DOI 10.1007/s10584-012-0422-8.

Wayne Martin (ESSEX), with Kristian Bjorkdahl, edited a special issue on *Arne Naess* for *Inquiry* 54 (2011): 1-112. (In 1973, the journal *Inquiry* published Naess' pioneering "The shallow and the deep, long-range ecological movement," perhaps the most seminal philosophical essay written in the last century. —M.S.)

James Stephen Mastaler (LOYOLA-CHICAGO) wrote "A case study on climate change and its effects on the global poor," *Worldviews: Global Religions, Culture and Ecology* 15 (2011): 65-87.

Freya Mathews (LA TROBE) wrote, "The eco-genesis of ethics and religion," *Journal for the Study of Religion, Nature, and Culture* 5 (2011): 263-283.

Klaus Mathis (LUCERNE) edited *Efficiency*, *Sustainability*, and *Justice to Future Generations* (Dordrecht: Springer, 2012).

Lois McAfee (PILGRIM PLACE) reviewed Catherine Laudine's *Aboriginal Environmental Knowledge: Rational Reverence* for *Worldviews: Global Religions, Culture, and Ecology* 15 (2011): 123-125.

Aaron M. McCright (WASHINGTON STATE): see Dunlap

Yates McKee (OHIO) wrote "On climate refugees: bio-politics, aesthetic, and critical climate change," *Qui Parle: Critical Humanities and Social Sciences* 19 (2011): 309-325; and "Art history, eco-criticism and the ends of man," *Oxford Art Journal* 34 (2011): 123-129.

Catriona McKinnon (READING) wrote "Climate change justice: getting motivated in the last chance saloon," *Critical Review of International Social and Political Philosophy* 14 (2011): 195-213. With Gideon Calder, she edited *Climate Change and Liberal Priorities* (London: Taylor and Francis, 2011), with papers by Derek Bell, Stephen M. Gardiner, Gideon Calder, Elizabeth Cripps, Catriona McKinnon, Simon Hailwood, Nicole Hassoun and Edward A. Page. She also wrote the monograph *Climate Change and Future Justice: Precaution, Compensation and Triage* (London: Routledge, 2011). Dr. McKinnon adds: "The book presents in normative political philosophy in three areas: (1) mitigation: the current generation ought to adopt a strong precautionary principle in formulating climate change policy; (2) adaptation: the current generation ought to create a fund to which members of future generations may apply for compensation if the risks of climate change harm imposed on them by the current generation ripen into harms; (3) triage: future generations in conditions of extreme scarcity ought to keep alive hope for a return to the framework of justice for social cooperation by adopting certain principles of triage." (More info can be found here: http://www.routledge.com/books/details/9780415461252/ -- M.S.) See also Calder.

Alastair McIntosh (STRATHCLYDE) reviewed Sallie McFague's *A New Climate for Theology* for *Journal for the Study of Religion, Nature, and Culture5* (2011): 384-386.

Lukas Meyer (GRAZ): see Roser

Herman Michell (FIRST NATIONS UNIVERSITY-CANADA): see Aikenhead

John Mikler (SYDNEY) wrote "Greening the car industry: varieties of capitalism and climate change" *Environmental Values* 20 (2011): 133-136.

Marie Miranda (DUKE), with Douglas Hastings (DUKE) et al., wrote "The environmental justice dimension of climate change," *Environmental Justice* 4 (2011): 17-25.

Darrel Moellendorf (SAN DIEGO STATE) wrote "Common atmospheric ownership and equal emissions entitlements," in Arnold, ed. (2011): 104-123; "A right to sustainable development," *The Monist* 94. (2011): 433-452; and "A normative account of dangerous climate **c**hange," *Climatic Change* 108 (2011): 57-72.

David E. Moody (LAUREL SPRINGS SCHOOL-OJAI) wrote "Seven misconceptions regarding the Gaia hypothesis," *Climatic Change* (2011): 8 pp., DOI 10.1007/s10584-011-0382-4.

Richard D. Morgenstern (RESOURCES FOR THE FUTURE-WASHINGTON, DC) wrote "Addressing Competitiveness in U.S. Climate Policy," in Arnold, ed. (2011): 216-231.

Carol Morris (NOTTINGHAM): see Endfield

Tim Mulgan (ST ANDREWS) wrote *Ethics for a Broken World: Imagining Philosophy after Catastrophe* (Montreal: McGill-Queen's University, 2011).

Petter Naess (AALBORG): see Bhaskar

Ved P. Nanda (DENVER) edited *Climate Change and Environmental Ethics* (Piscataway/New Brunswick, N.J.: Transaction Publishers, 2011). See also Attfield.

David Neelin (UCLA) wrote *Climate Change and Climate Modeling* (Cambridge: Cambridge University Press, 2011).

Michael P. Nelson (MICHIGAN STATE/LYMAN BRIGGS): see Goralnik

Sophie Nicholson-Cole (EAST ANGLIA): see Adger

John Nolt (TENNESSE-KNOXVILLE) wrote "Greenhouse gas emission and the domination of posterity" in *The Ethics of Global Climate Change*, in Arnold, ed. (2011): 60-76; "How harmful are the average American's greenhouse gas emissions?" *Ethics, Policy, & Environment* 14 (2011): 3-10. (See also the entries for Attfield, Hartzell, Odenbaugh, Sandler, and Saeger in this bibliography. —MS.)

Kari Marie Norgaard (OREGON) wrote *Living in Denial: Climate Change, Emotions and Everyday Life* (Cambridge, Mass.: MIT Press, 2011); and "Climate denial: emotion, psychology, culture and political economy," in Dryzek et al., eds. (2011)

Richard B. Norgaard (U CAL-BERKELEY): see Dryzek

Michael S. Northcott (EDINBURGH) wrote "Anthropocentric climate change, political liberalism and the communion of saints," *Studies in Christian Ethics* 24 (2011): 34-49

Bryan G. Norton (GEORGIA TECH): see Hirsch, Thompson, A.

Frederick Ochieng-Odhiambo (KENYA/U OF THE WEST INDIES-CAVEHILL): see Hellsten

Jay Odenbaugh (LEWIS AND CLARK COLLEGE) wrote "This American life," *Ethics, Policy & Environment* 14 (2011): 27-29 (which is a response to Nolt – M.S.)

Dennis Patrick O'Hara (ST. MICHAEL'S COLLEGE) wrote, with Alan Abelsohn (TORONTO), "Ethical Response to Climate Change," *Ethics and the Environment* 16 (2011): 25-50.

Chukwumerije Okereke (OXFORD) wrote "Moral foundations for global environmental and climate justice," *Royal Institute of Philosophy Supplement* 69 (2011): 117-135

Markku Oksanen (TURKU): see Joronen

Edward A. Page (WARWICK) wrote "Cashing in on climate change: political theory and global emissions trading," *Critical Review of International Social and Political Philosophy* 14 (2011): 259-279; and "Climatic justice and the fair distribution of atmospheric burdens: a conjunctive account," *The Monist* 94 (2011): 412-432. See also McKinnon.

Clare Palmer (TEXAS A&M) wrote "Does Nature Matter? The Place of the Nonhuman in the Ethics of Climate Change" in Arnold, ed. (2011)

Christian Parenti (CUNY) wrote *Tropic of Chaos: Climate Change and the New Geography of Violence* (New York: Nation Books, 2011)

Wendy Parker (OHIO) wrote "When climate models agree: the significance of robust model predictions," *Philosophy of Science* 78(4) (2011): 579-600

Sean Parson (ALASKA-FAIRBANKS) wrote, as 'Fukushima Daiichi disaster commentary, part 2,' "Climate First? The ethical and political implications of pronuclear policy in addressing climate change," *Ethics*, *Policy, and Environment* 15 (2012): 51-56.

Antoine Pécoud (UNESCO): see Piguet

Etienne Piguet (NEUCHATEL) edited, with Antoine Pécoud (UNESCO), and P. F. A. de Gechteneire (UNESCO), *Migration and Climate Change* (Cambridge: Cambridge University Press, 2011).

Francesca Pongiglione (BOLOGNA) wrote "Anthropology and climate change: from encounters to actions; political theory and global climate change," *Ethics, Policy & Environment* 15 (2012): 125-129.

Christopher J. Preston (MONTANA-MISSOULA) wrote "Re-thinking the unthinkable: environmental ethics and the presumptive argument against geoengineering," *Environmental Values* 20 (2011): 457-479; and "Environmental knowledge: courteous yet subversive, grounding yet surprising" *Ethics, Policy and Environment* 14 (2011): 91-96.

James D. Proctor (LEWIS AND CLARK COLLEGE) wrote "Ecotopian exceptionalism," *Journal for the Study of Religion, Nature, and Culture* 5 (2011): 145-163.

Ashley Pryor (TOLEDO) wrote "Thinking like a mystic: the unacknowledged legacy of P. D. Ouspensky's *Tertium Organum* on the development of Leopold's 'Thinking like a Mountain'," *Journal for the Study of Religion, Nature, and Culture* 5 (2011): 465-490.

Samuel Randalls (UNIVERSITY COLLEGE LONDON) wrote "Optimal climate change: economics and climate science policy histories (from heuristic to normative)," *Osiris* 26 (2012): 224-242.

Felix Rauschmayer (HELMHOLTZ-LEIPZIG) et al. wrote *Sustainable Development: Capabilities, Needs, and Well-Being* (New York/London: Routledge, 2011).

Rupert Read (UNIVERSITY OF EAST ANGLIA) was featured in *The Guardian* and participated in an event called GUARDIANS FOR FUTURE GENERATIONS on 25 April 2012. James Garvey (ROYAL INSTITUTE OF PHILOSOPHY) writes, "The philosopher Rupert Read presented a report called *Guardians of the Future: A Constitutional Case for Representing and Protecting Future People* in the UK Parliament. The idea is to give future people a voice in our democracy by appointing a jury to look after their interests." See highlights.

Sara Readon (SCIENCE-AAAS) wrote "Climate change sparks battles in the classroom," *Science* 333 (2011): 688-689.

Michael Reder (MUNICH SCHOOL OF PHILOSOPHY) wrote "Religion in the public sphere: the social function of religion in the context of climate and development policy," in Gerten/Bergmann, eds. (2012), 32-45.

Matthew Rendall (NOTTINGHAM) wrote "Climate change and the threat of disaster: the moral case for taking out insurance at our grandchildren's expense," *Political Studies* 59 (2011): 884-99, and "Non-Identity, Sufficiency and Exploitation," *Journal of Political Philosophy* 19 (2011): 229-47. A new paper on population theory and future generations, "Mere Addition and the Separateness of Persons: A Candidate for Theory X," is currently out under review.

Casey J. Rentmeester (SOUTH FLORIDA) earned his doctorate degree Spring 2012 with a dissertation advised by Charles Guignon and Martin Schönfeld titled: An ontological analysis of our environmental crisis: rethinking humanity's relation to nature through a Heideggerian lens. The abstract begins as follows: "In the past few decades, it has become clear that the Western world's relation to nature has led to environmental degradation so wide-ranging that it threatens the existence of human civilizations as we have come to know them. The onset of anthropogenic climate change and the increasing threats of resource depletions are the most obvious signs of an environmental crisis. This dissertation attempts to examine the metaphysical underpinnings of our current environmental crisis ... using Martin Heidegger's writings on the history of being as its linchpin."

Christian Reichel (FU BERLIN): see Frömming

Katherine Richardson (COPENHAGEN) wrote, with Will Steffen (AUSTRALIAN NATIONAL UNIVERSITY-CANBERRA) and Diana Liverman (ARIZONA), *Climate Change: Global Risks, Challenges, and Decisions* (Cambridge/New York: Cambridge University Press, 2011).

Michael Roberts (ANGLICAN CHURCH, LANCASTER, UK) wrote "Evangelicals and climate change," in Gerten/Bergmann, eds. (2012), 107-131.

Holmes Rolston III (COLORADO STATE) wrote "The future of environmental ethics," *Royal Institute of Philosophy Supplement* 69 (2011): 1-28.

Dominic Roser (ZURICH) wrote, together with Sabine Hohl, "Stepping in for the polluters? Climate justice under partial compliance," *Analyse und Kritik*, forthcoming; he reviewed *Climate Change Justice* (Princeton University Press 2010) by Eric A. Posner & David Weisbach (both at CHICAGO LAW SCHOOL); he also finalized an article, with Lukas Meyer (GRAZ), on the opportunity cost argument for discounting. Dominic adds: "Topics on which I currently try to get my head around are Carbon Border Adjustments, consumption-vs.-production-based accounting of emissions and ranking climate policies in terms of their degree of justice."

Catriona Russell (TRINITY COLLEGE-DUBLIN) wrote "Burden-sharing in a changing climate: which principles and practices can theologians endorse?" *Studies in Christian Ethics* 24 (2011): 67-76.

Lioba Rossbach de Olmos (MARBURG) wrote "Religious perspectives on climate change among indigenous communities: questions and challenges for ethnological research," in Gerten/Bergmann, ed. (2012), 200-214.

Mark Sagoff (GEORGE MASON) wrote "The rise and fall of ecological economics," *Breakthrough Journal* 1.2 (2011).

Joakim Sandberg (GOTHENBERG) wrote "My emissions make no difference: climate change and the argument from inconsequentialism," *Environmental Ethics* 33 (2011): 229-248.

Ronald Sandler (NORTHEASTERN) wrote "Beware of averages: a response to John Nolt's 'How harmful are the average American's greenhouse gas emissions?" *Ethics, Policy, and Environment* 14 (2011): 31-33; and "Global warming and virtues of restoration," in Thompson & Bendik-Keymer, eds. (2012), 63-79.

Arthur Saniotis (ADELAIDE) wrote "Muslims and ecology: fostering Islamic environmental ethics," *Contemporary Islam* 5 (2011).

Thomas J. Sauer (USDA-ARS NATIONAL SOIL TILTH LAB) et al. edited *Sustaining Soil Productivity in Response to Global Climate Change: Science, Policy, and Ethics* (Chichester, UK: Wiley-Blackwell, 2011).

Jame Schaefer (MARQUETTE) edited *Confronting the Climate Crisis: Catholic Theological Perspectives* (Milkwaukee: Marquette University Press, 2011).

Jürgen Scheffran (HAMBURG) wrote, with Antonella Battaglini (POTSDAM INSTITUTE OF CLIMATE IMPACT RESEARCH), "Climate and conflicts: the security risks of global warming" *Regional Environmental Change* 11 (2011): 27-39

Erich Schienke (PENN STATE) wrote with Seth Baum, Nancy Tuana, Ken Davis, and Klaus Keller (all also from PENN STATE) "Intrinsic ethics regarding integrated assessment models for climate management," *Science & Engineering Ethics* 17 (2011): 503-523.

Anders Schinkel (ROTTERDAM) wrote "Causal and moral responsibility of individuals for (the harmful consequences of) climate change," *Ethics, Policy & Environment* 14 (2011): 35-37.

David Schlosberg (SYDNEY) wrote "Justice, ecological integrity, and climate change," in Thompson and Bendik-Keymer (eds.), 2012, 165-183. See also Dryzek.

Martin Schönfeld (SOUTH FLORIDA) edited a topic issue on *Climate Ethics* in *Journal of Global Ethics* 7 (2011): 129-216, for which he wrote the introduction, "Plan B: global ethics on climate change," p. 129-136, and co-authored, with Chen Xia (CHINESE ACADEMY OF SOCIAL SCIENCES), "A Daoist response to climate ethics," in the same issue, 195-203. He is now editing *Global Ethics on Climate Change* (London: Taylor & Francis, 2012, in press). He also wrote "Amerigenic climate change—an indictment of normalcy," in Williston (2012), 283-290; "How real is Daoism? Triangulating Kant, Laozi, and climate," *Wei Wu Wei: Essays on Daoist Philosophy*, ed. Lik Kuen Tong (Hong Kong: Academy for Field-Being Philosophy, 2011), 69-78; "The future of faith: climate change and the fate of religions," in Gerten/ Bergmann, eds. (2012): 152-172; "World philosophy and climate change: a Sino-German way to civil evolution," *Journal of Chinese Philosophy*, special issue on *Chinese & European Philosophy: Intercultural Perspectives*, ed. Eric S. Nelson, 2012 in press; "The endpoint of civil evolution," transl. as "文明進化的終極" in *Zongjiao Zhexue Qikan* (宗教哲學期刊), 2012 in press; "Ecosophy in the climate age," *Zhexue Wenhua* (哲學文化), special issue on *Ecological Intelligence*, ed. Yih-Hsien Yu, 2012 in press. See also: Williston, and Xia.

Thomas Schramme (HAMBURG) wrote "When consumers make environmentally unfriendly choices" published in *Environmental Politics* 20(3) (2011): 340-355.

Yda Schreuder (DELAWARE) wrote "The corporate greenhouse: climate change policy in a globalizing world," *Environmental Values* 20 (2011): 126-128.

Fabian Schuppert (ZURICH) writes: I work as a post-doc at the Centre for Ethics of Zurich University, Switzerland. In 2011 I published a paper in *Environmental Politics* 20 (2011) on "Climate change mitigation and intergenerational justice" (http://www.tandfonline.com/doi/abs/10.1080/09644016.2011.573351). I also organized a workshop on RESOURCE RIGHTS AND SUSTAINABLE RESOURCE MANAGEMENT which took place in Zurich in February 2012 (http://www.ethik.uzh.ch/ufsp/agenda/resourcerights.html). Also in 2011 was the kick-off for a EUROPEAN RESEARCH NETWORK ON GREEN HUMAN RIGHTS (<a href="http://www.esf.org/activities/research-networking-programmes/social-sciences-scss/rights-to-a-green-future-uncertainty-intergenerational-human-rights-and-pathways-to-realization-enri-future.html), which brings together experts from various European countries to work on the challenges of climate ethics. The next meeting of the network is scheduled for September 2012 in Graz, Austria.

Peter Manley Scott (MANCHESTER) wrote "Thinking like an animal: theological materialism for a changing climate," *Studies in Christian Ethics* 24 (2011): 50-66.

Thomas Seager (ARIZONA STATE) wrote with Evan Selinger (ROCHESTER INSTITUTE OF TECHNOLOGY) and Susan Spierre (ARIZONA STATE) "Determining Moral Responsibility for CO2 Emissions: A Reply to Nolt" in *Ethics, Policy, & Environment* 14(1) (2011): 39-42.

Evan Selinger (ROCHESTER INSTITUTE OF TECHNOLOGY): see Seager

J. Aaron Simmons (HENDRIX COLLEGE) wrote "Toward a relational model of anthropocentrism: a Levinasian approach to the ethics of climate change," in Edelglass et al., eds. (2012), 229-251.

Avner de Shalit (HEBREW U) wrote "Climate change refugees, compensation, and rectification," *The Monist* 94 (2011): 310-328.

A. de Sherbinin (COLUMBIA) et al. wrote "Preparing for resettlement associated with climate change," *Science* 334 (2011): 456-457.

Kenneth Shockley (SUNY-BUFFALO) wrote "Human values and institutional responses to climate change," in Thompson and Bendik-Keymer, eds. (2012), 281-297.

Henry Shue (OXFORD) wrote "Face reality? After you! – A call for leadership on climate change," *Ethics and International Affairs* 25 (2011): 17-26; "Human rights, climate change, and the trillionth ton," in Arnold, ed. (2011), 290-314.

Kristin Shrader-Frechette (NOTRE DAME) wrote *What Will Work: Fighting Climate Change with Renewable Energy, not Nuclear Power* (New York: Oxford University, 2011); "Climate change, nuclear economics, and conflicts of interest," *Science and Engineering Ethics* 17 (2011): 75-107; "Climate change, nuclear power, and ionizing-radiation standards," *Topics in Contemporary Philosophy* vol. 9 *Environmental Philosophy*, eds. Matt Slater and Michael O'Rourke (Cambridge: MIT Press, 2012), in press; and "Climate change, nuclear economics, and conflicts of interest," *Science and Engineering Ethics* 17 (2011): 75-107. She also reviewed Denis Arnold, ed., *The Ethics of Climate Change* in *Notre Dame Philosophical Reviews* 17 July 2011, URL http://ndpr.nd.edu/news/24765/?id=24290. See planet.

Peter Singer (PRINCETON) wrote *Practical Ethics* (New York: Cambridge University, 2011) with a chapter dedicated to climate change.

Stefan Skrimshire (MANCHESTER) edited *Future Ethics: Climate Change and Apocalyptic Imagination* (London: Continuum, 2010). See <u>review</u>.

Byron Smith (EDINBURGH) wrote "Doom, gloom, and empty tombs: Climate change and fear," *Studies in Christian Ethics* 24 (2011): 77-91.

Mick Smith (QUEENS) wrote "Dis(appearance): Earth, ethics, and apparently (in)significant others," *Australian Humanities Review* 50 (2011), and reviewed Gottlieb (2011) for *Environmental Values* 20 (2011).

Robert H. Socolow (PRINCETON) and Mary R. English (TENNESSE-KNOXVILLE) wrote "Living Ethically in a Greenhouse" in *The Ethics of Global Climate Change*, edited by Denis Arnold, Cambridge University Press (2011): pp. 170-191.

Holger Sonnabend (STUTTGART) wrote "Environment, climate and religion in ancient European history," in Gerten/Bergmann, ed. (2012), 261-266.

James Gustave Speth (VERMONT LAW SCHOOL) wrote "Letter to liberals: liberalism, environmentalism, and economic growth," *Ethics, Policy, & Environment* 14 (2011): 43-54.

Susan Spierre (ARIZONA STATE): see Seager

Will Steffen (AUSTRALIAN NATIONAL U) wrote "The Anthropocene: conceptual and historical perspectives," *Philosophical Transactions of the Royal Society A* 369 (2011): 842-867; see also Richardson.

Jac. A. A. Swart (GRONINGEN): see Keulartz, Thompson

Erik Swyngedouw (MANCHESTER) wrote "Depoliticized environments: the end of Nature, climate change and the post-political condition," *Royal Institute of Philosophy Supplement* 69 (2011): 253-274.

Lyal S. Sunga (RAOUL WALLENBERG INSTITUTE) wrote "Does climate change kill people in Darfur?" *Journal of Human Rights and the Environment* 2 (2011): 64-85.

Behnam Taebi (DELFT UNIVERSITY OF TECHNOLOGY) wrote "Ethics of nuclear power: how to understand sustainability in the nuclear debate," in Pavel Tsvetkov, ed., *Nuclear Power – Deployment, Operation, and Sustainability* (InTech open access 2011).

Strobe Talbott (BROOKINGS INSTITUTION): see Antholis

Robert W. Taylor (MONTCLAIR) wrote *Clashing Views in Sustainability* (New York: McGraw-Hill, 2012).

Marika Theros (LONDON SCHOOL OF ECONOMICS): see Held

Allen Thompson (OREGON STATE) edited, with Jeremy Bendik-Keymer (CASE-WESTERN), *Ethical Adaptation to Climate Change: Human Virtues of the Future* (Cambridge, Mass.: MIT, 2012). See also **highlights**. Dr. Thompson also contributed "The virtue of responsibility for the global climate" to his

volume (2012), 203-221. He adds, "Also, I will be interviewed on the radio program *Philosophy Talk* on April 18th for a program they are calling 'The Moral Costs of Climate Change'." Further info is here: http://philosophytalk.org/have-thought-will-travel-oregon-trail-tour-2012

Michael Thompson (NORTH TEXAS) wrote "Climate, imagination, Kant, and situational awareness," *Journal of Global Ethics* 7 (2011): 137-147; also forthcoming in Schönfeld, ed. (2012).

William M. Throop (GREEN MOUNTAIN COLLEGE) wrote "Environmental virtues and the aims of restoration," in Thompson & Bendik-Keymer, eds. (2012), 47-62.

Crispin Tickell (OXFORD) wrote "Societal responses to the Anthropocene," *Philosophical Transactions of the Royal Society A* 369(1938) (2011): 926-932.

Nancy Tuana (PENN STATE): see Schienke

Steve Turner (SOUTH FLORIDA) published "The conservative disposition and the precautionary principle," in Corey Abel, ed., The Meanings of Michael Oakeshott's Conservativism (Exeter: Imprint Academic 2010), 204-217; and "Normal accidents of expertise," Minerva 48 (2010): 239-258. Dr. Turner explains: "The conservative disposition" is a reflection on M. Oakeshott (1962, p. 169: "To be conservative is to prefer the familiar to the unknown, to prefer the tried to the untried, fact to mystery, the actual to the possible, the limited to the unbounded, the near to the distant, the sufficient to the superabundant, the convenient to the perfect, present laughter to utopian bliss.") The abstract of "Normal accidents of expertise" is as follows: "Charles Perrow used the term 'normal accidents' to characterize a type of catastrophic failure that resulted when complex, tightly coupled production systems encountered a certain kind of anomalous event. These were events in which systems failures interacted with one another in a way that could not be anticipated, and could not be easily understood and corrected. Systems of the production of expert knowledge are increasingly becoming tightly coupled. Unlike classical science, which operated with a long time horizon, many current forms of expert knowledge are directed at immediate solutions to complex problems. These are prone to breakdowns like the kind discussed by Perro. The example of the Homestake Mine experiment [an empirical test of basic physical ideas about solar neutrinos passing through the Earth, conducted in the 1970s] shows that even in modern physics complex systems can produce knowledge failures that last for decades. The concept of knowledge risk is introduced, and used to characterize the risk of failure in such systems of knowledge production." (The wicked twist in Dr. Turner's work is that when he explores 'catastrophic failure' in 'complex systems,' he is not talking about runaway climate change, but instead about the climate science community.—M.S.)

The United States, in the guise of the U.S. Senate, published the transcripts of the 110th Congress's First session, 7 June 2007 *Examination of the Views of Religious Organizations Regarding Global Warming: Hearing before the Committee on Environment and Public Works* (Washington: US GPO, 2011).

Olivier Urbain (TODA INSTITUTE TOKYO), with Deva Temple, edited *Ethical Transformations for a Sustainable Future* (New Brunswick, NJ: Transaction Publishers, 2011).

Walter E. A. van Beek (WISCONSIN-MADISON) reviewed *African Sacred Groves: Ecological Dynamics and Social Changes*, ed. by Michael Sheridan and Celia Nyamweru, for *Journal for the Study of Religion, Nature, and Culture* 5 (2011): 101-103.

Steve Vanderheiden (COLORADO) wrote "Climate change and collective responsibility," *Moral Responsibility: Library of Ethics and Applied Philosophy* 27 (2011): 201-218.

John Vandermeer (MICHIGAN) reviewed Anne Lappé's *Diet for a Hot Planet: the Climate Crisis at the End of your Fork and what you can do about it* for *Journal of Agricultural and Environmental Ethics* 5 (2011): 533-534.

Steven Vogel (DENISON) wrote "Alienation and the commons," in Thompson & Bendik-Keymer, eds. (2012), 299-315.

Markus Vogt (LMU MUNICH) wrote "Climate justice from a Christian point of view: challenges for a new definition of wealth," in Gerten/Bergmann (2012): 69-84.

Timo Vuorisalo (TURKU): see Joronen

Byron Williston (WILFRID LAURIER) wrote "Moral Progress and Canada's climate failure," *Journal of Global Ethics* 7 (2011): 149-160; also forthcoming in Schönfeld, ed. (2012). He also edited *Environmental Ethics for Canadians* (Toronto/Oxford: Oxford University Press, 2012). A new essay, "Climate change and radical hope," is forthcoming in *Ethics and the Environment*. See https://doi.org/10.1001/journal.org/

Workineh (ADIS ABABA): see Kelbessa

Chen Xia (CHINESE ACADEMY OF SOCIAL SCIENCES, BEIJING) wrote, with Martin Schönfeld (SOUTH FLORIDA), "A Daoist response to climate ethics," *Journal of Global Ethics* 7 (2011): 195-203; also forthcoming in Schönfeld, ed. (2012).

Zhihua Yin (RENMIN UNIVERSITY CHINA) wrote "Taoist philosophy on environmental protection," in *Religious Studies in Contemporary China Collection: Taoism*, ed. by Zhongjian Mou, Junliang Pan, and Simone Norman (Leiden, Brill, in press).

Jürgen Zimmerer (HAMBURG) is currently editing a topic issue of *Journal of Genocide Research* (Routledge) on climate and genocide. The title of the issue is *Environmental genocide?--Climate change, mass violence, and the question of ideology*. His recent publications include the editorial, "Beyond Gaddafi: sustainable prevention in the face of environmental injustice," *Journal of Genocide Research* 13 (2011): v-vii. See <u>highlights</u>.

Slavoj Žižek (EUROPEAN GRADUATE SCHOOL) wrote Living in the End Times (London: Verso, 2010).

Never Seen That One Before:

Research Highlights at the Cutting Edge

The selection of 'research highlights' is a dangerous business, because it can quickly backfire on the one who is making the selection. When compiling the bibliography, I ran across items that made me realize that I had never seen anything like them before. This became my sole selection criterion. But what goes for me does not necessarily go for others: you may have seen these lines of inquiry already, and they may not strike you as being that innovative after all. That I have not yet seen it may well be a symptom of my ignorance and failure to have kept up with research. And then there is of course the danger of omission: that other items that really ought to be in here, are absent, once again revealing negligence on my part. So I am running the risk of making a fool out of myself. Well, you be the judge. Read on.

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§ 1. A Step towards Climate Logic

Since the emerging reality of climate change appears to be crossing all disciplinary boundaries in academia, one figures it would only be a question of time before someone would design what appears to be the first formal language for the set of beliefs and assumptions in climate modeling. The author is **Ramon de Elia**, Head of Climate Analysis at the OURANOS CONSORTIUM, MONTREAL. The work is titled "Basis of a formal language for facilitating communication among climate modelers" and came out in *Climate Dynamics* (2011), 11 p. doi:10.1007/s00382-011-1265-0.

Dr. Elia is careful to distinguish "formal language" from "formal logic," but it appears to be that this research brings Philosophy and related disciplines a significant step closer to the creation of climate logic. (If the late Jon Barwise could do logic of situations, then surely logic of climate will be doable!) An excerpt from the introduction reads as follows:

The objective of this work is to present the basis for a formal language that aims to express in a concise way what we believe is true and what seems to be true in climate modeling ... The expression of this set of beliefs takes the form of relations, conjectures or propositions that describe the characteristics of different aspects of climate modeling. The advantages of having recourse to a formal language are several, for example the fact that a concise expression of beliefs may lead to better defined discussions within the community, and perhaps highlight areas of research that have been neglected. A limitation of the formal language to be discussed in the following pages is also worth mentioning: a successful formal language should express in a synthetic way the main concepts that need to be communicated, but will not in itself create new knowledge (as is the case, for example, with formal logic).

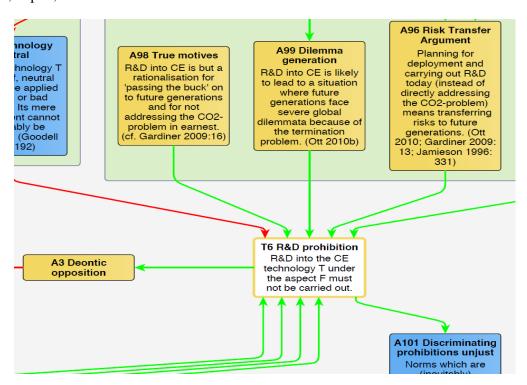
Dr. Elia sends the following abstract:

The objective of this work is to present the basis for a formal language that aims to express in a concise way some fundamental beliefs held within the climate research community. The expression of this set of beliefs takes the form of relations, conjectures or propositions that describe characteristics of different aspects of climate modeling. Examples are constructed using topics that are much discussed within the climate modeling community. The article first introduces, as elements of this formal language, models considered a priori (the model as a code or algorithm) or a posteriori (the model as output), and then presents different relations between these elements. The most important relation is that of dominance, which helps to define the superiority of one model over another based on which model a rational agent will choose. Various kinds of dominance are considered. Also presented in a formal language are propositions and conjectures relating to model development, model calibration and climate change ensemble projections, each of which are held with diverse levels of acceptance within the climate modeling community. In addition, the relevance of defining elements—models—whose existence is improbable, such as bug-free model versions, is discussed. Although the potential value of this language is shown, there remains a need to improve the definitions presented here, as some of them remain unsatisfying. Still, we believe that this attempt may help us not only communicate more clearly but also to better distinguish different schools of thought that currently exist within the community.

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§ 2. A climate engineering argument map

... Looks, in part, like this:

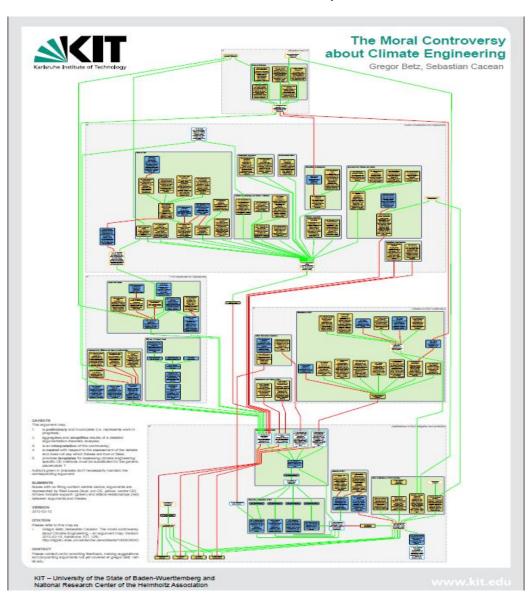


This is a screenshot of a detail of an 'argument map' about the pros and cons of climate engineering.

Gregor Betz and **Sebastian Cacean** (KARLSRUHE INSTITUTE OF TECHNOLOGY OR KIT) produced this visual rendition of the <u>moral controversy about climate engineering</u>. Climate engineering is still beyond the horizon; the ethical dimension is now being elucidated, and what I see here for the first time is a *map* that charts the sequence of reasoning of the arguments and their assumptions in two-dimensional form.

The map is huge, and looks at first sight like an electronics blueprint. You can access it either directly as a pdf or get to it through URL (http://digbib.ubka.uni-karlsruhe.de/volltexte/1000026042).

Here is a screenshot of the whole visualization of the controversy.



Betz writes that the moral map of climate engineering (CE) "was the backbone of a comprehensive interdisciplinary assessment of CE," prepared by Rickels, W.; Klepper, G.; Dovern, J.; Betz, G.; Brachatzek, N.; Cacean, S.; Güssow, K.; Heintzenberg J.; Hiller, S.; Hoose, C.; Leisner, T.; Oschlies, A.; Platt, U.; Proelß, A.; Renn, O.; Schäfer, S.; Zürn M. (2011): <u>Large-Scale Intentional Interventions into the Climate System? Assessing the Climate Engineering Debate</u>. Scoping report conducted on behalf of the German Federal Ministry of Education and Research (BMBF) Kiel: Kiel Earth Institute, 2011, 170 pp.

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§ 3. Parliamentary commission for future generations

Another thought-provoking item is a report by **Rupert Read** presented to the UK Parliament. The 33 page report is called *Guardians of the Future: A Constitutional Case for Representing and Protecting Future People* (Weymouth: Greenhouse, 2012). It is free to download at http://www.greenhousethinktank.org/.

Here is an excerpt (p. 6-7):

The most striking – and inspiring - existing precedent of an innovative constitutional change that aims to protect future people can be found in Hungary. Hungary instituted a 'Parliamentary Commissioner for Future Generations' in 2007/2008. Since 2008, the Parliamentary Commissioner for Future Generations has been one of four ombudsmen elected by the unicameral Hungarian Parliament. He is charged with protecting the constitutionally-guaranteed fundamental right to a healthy environment, and receives petitions from those concerned that that right has been, or is in danger of being, violated. He must investigate properly executed petitions and then make recommendations to the relevant public body, and he can investigate violations on his own initiative. He has duties aimed primarily at improving law enforcement and implementation of international treaties, and can ask the Constitutional Court to intervene where relevant. He has powers aimed at influencing the activities of individuals and companies that actually and potentially harm the environment; at moving the competent regulatory authorities to use their own powers to restrain environmentally damaging activities; and at suspending the decisions of administrative bodies which permit activities that harm the environment. In performing his functions, he has significant powers to obtain information, to enter property and to publicize his proceedings (for instance, the Commissioner has commented extensively on relevant draft laws). The Commissioner also carries out strategic development and Guardians for the Future research covering the duty of representing the interests of future generations.

Dr. Read writes: "You may be aware of *Green House*'s 'guardians for future generations' proposal, a proposal formed in discussions with the *Alliance for Future Generations*, and launched earlier this year at Parliament (URL http://www.guardian.co.uk/environment/damian-carrington-blog/2012/jan/04/climate-politics-future-generation-justice). This radical proposal for how to protect future people in the light of the climate crisis etc. has attracted a lot of interest. Now we (*Green House*) are taking it to the next stage forward: We will stage a micro-mock-version of the guardians 'super-jury' concept, at a public meeting that will take place

on April 25th, at 6.15pm, at King's Place in London (near Euston), in the Scott Room (going on til 9pm). Also speaking alongside Rupert Read of Green House that evening will be **Polly Higgins**, on her proposal to make the prevention of ecocide part of international law. And the Hungarian Ombudsman for *Future Generations*, **Sandor Fulop**, will join us via Skype to discuss both proposals." See also Dr. Read's blog post at *Rupert's Read* (URL http://rupertsread.blogspot.com/2012/01/my-report-launching-at-green-house.html).

(Rupert Read, BTW, is a pioneer: he participated in the <u>first international conference on climate and philosophy</u>, which was held at the University of South Florida in 2006. He contributed a paper on "Climate change and the unsustainability of Rawls' difference principle".)

On 25 April 2012, I received an update about this project. **James Garvey** writes: "Tonight might well be interesting. We've got an event hosted by *The Guardian* newspaper, all about concrete proposals for protecting future generations (http://www.greenhousethinktank.org/page.php?pageid=Calendar). Rupert Read will talk about his Guardians Jury proposal, **Polly Higgins** will discuss the possibility of a new crime called ecocide, and **Sandor Fulop** (by Skype), the Hungarian Ombudsman for Future Generations, will talk about his work. We'll convene a mock jury, and discuss fracking or some other thing in the news. I do think a UN Commissioner for Future Generations or a cabinet minister in charge of representing future people are live possibilities."

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§ 4. Climate virtue ethics

I must admit that I never came across Climate Virtue Ethics in print until I put together the 2012 newsletter. Virtue ethics, of course, is as old as it gets, going all the way back to Laozi and Confucius. Environmental Virtue Ethics, if I am not mistaken, started thirty years ago with Thomas E Hill's profound essay "Ideals of human excellence and preserving natural environments" in the 1983 volume of *Environmental Ethics*. Now **Allen Thompson** and **Jeremy Bendik-Keymer**, who were both involved, if memory serves, in organizing a Climate (Virtue) Ethics conference at Clemson a few years back, just edited *Ethical Adaptation to Climate Change: Human Virtues of the Future* (Cambridge: MIT, 2012).

Contributors to the book, next to the editors, are Ned Hettinger, William M. Throop, Ronald Sandler, Eric Higgs, Andrew Light, Jozef Keulartz/Jac. A. A. Swart, Breena Holland, David Schlosberg, Dale Jamieson, Jason Kawall, Stephen M. Gardiner, Kenneth Shockley, Steven Vogel, Paul D. Hirsch and Bryan G. Norton. (For more info, see the entries in the research bibliography above.)

The MIT flyer sums up the thrust of the anthology:

Predictions about global climate change have produced both stark scenarios about environmental catastrophe and purportedly pragmatic ideas about adaptation. This book takes a different perspective, exploring the idea that the challenge of adapting to global climate change is fundamentally an ethical one,

that it is not simply a matter of adapting our infrastructures and economies ... but rather of adapting ourselves to realities of a new global climate. The challenge is to restore our conception of humanity—to understand human flourishing in new ways—in an age in which humanity shapes the basic conditions of the global environment. In the face of what we have unintentionally done to Earth's ecology, who shall we become?

Some arguable keywords culled from this flyer would be PREDICTION, CLIMATE CHANGE, SCENARIO, CATASTROPHE, EXISTENTIAL ADAPTATION, HUMANITY, FLOURISHING, and BECOMING.

The keywords culled are suggestive. It would seem they situate Climate Virtue Ethics closer to synthetic Climate Philosophy than to analytic Climate Ethics. (See the <u>word clouds</u> below.) The similarity with the former, and difference from the latter, is the inclusion of an existential dimension. The willingness to ask questions about existence as such, in the dual context of environment and ethics, is what connects Climate Virtue Ethics and Climate Philosophy, and what separates both from Analytical Climate Ethics, according to which such questions are just meaningless.

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§ 5. (Against) climate reductionism

In 2005, the Australian naturalist Tim Flannery wrote in his excellent *The Weather Makers: how man is changing the climate and what it means for life on Earth* (expanded edition, New York: Grove, 2006), 8,

One of the biggest obstacles to making a start on climate change is that it has become a cliché before it has even been understood. What we need now is good information and careful thinking, because in the years to come this issue will dwarf all the others combined. It will become the *only* issue.

This made sense to me, and so I concluded in 2011,

The new reality of climate change informs virtually all phenomena on the list of environmental problems, plus spawning entire new orders of hitherto unknown troubles of its own. From the traditional vantage point of environmental ethics, it also affects whoever has moral standing in some form, whether these are people, future generations, apes, animals, plants, biotic systems, or Aldo Leopold's integrity of the land. Climate change, through its diverse facets, manifold risk, and multiple dimensions, is an integrative reality. It puts all the traditional problems in a new place. It arises as the salient context for all of them. This, it is not an entry on the list [of environmental issues such as nuclear power, biodiversity loss, and so on]; it is the new paper the old items are written on. To put it baldly: it is the list. cf. *Journal of Global Ethics* 7 (2011): 133

And just when I think, *this is it*, along comes **Mike Hulme** (EAST ANGLIA—TYNDALL CENTRE) and writes "Reducing the future to climate: a story of climate determinism and reductionism," *Osiris* 26 (2011): 245-266. Now *he* writes,

Climate reductionism—a form of neoenvironmental determinism—offers a methodology for providing simple answers to complex questions about the relationship between climate, society, and the future. In its crudest form it asserts that if social change is unpredictable and climate change predictable then the future can be made known by elevating climate as the primary driver of change. But such reductionism downgrades human agency and constrains the human imagination. (ibid, p. 265)

Hulme takes what he calls 'climate reductionism' to town because he finds it way too close to fatalism, which clearly is an inappropriate existential response to climate change. His paper is highly informative, rich in historical details (e.g. with regard to the old-style climate determinism in the West), and more subtle than my short citation makes it appear. I highly recommend it.

Hulme's paper also illustrates how fast things are moving now. First someone (Flannery) predicts that climate will soon be the only issue that matters. Then someone else (me) claims that climate change is now framing the debates in environmental ethics, thereby shifting the paradigm. But does my claim overdo it? Hulme pushes back, arguing that such reduction goes too far. Or is it the case that Hulme throws out the baby with the bathwater by leaping from a theoretical reduction to a practical determinism? Is it not the case that the (intellectually interesting) reduction is really only a theoretical one (the reality of climate change will dominate the future), and that no one would seriously entertain a *practical* reduction (climate change will now dominate the future so much that we are powerless and that there will be nothing we can do), not the least because such a practical reduction is empirically false?

You decide whether Hulme has gone too far or not. But the bottom line is that *climate reductionism* is now a new issue in need of appraisal, clarification, and differentiation, at least since the fall of 2011.

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§ 6. Solar radiation management ethics

Ben Hale (COLORADO-BOULDER) pointed my attention to a forthcoming anthology by **Christopher Preston** (MONTANA) on *Reflecting Sunlight: The Ethics of Solar Radiation Management* (Lanham: Rowman & Littlefield, 2012). So there you have it. There is now ethical research on the management solar radiation, something whose existence I had not been aware of last year either. This normative investigation is part of a larger research project on the ethics of geoengineering at the University of Montana in Missoula (http://www.umt.edu/ethics/EthicsGeoengineering/about%20us.aspx). Involved in this project are Dr. Preston as well as **Laurie Yung** and **Dane Scott**, both in Montana's Department of Society and Conservation.

§ 7. Climate and genocide

Another new thing I have never seen before: a topic issue on climate, in a journal on genocide (!) studies. **Jürgen Zimmerer** (HAMBURG) is editing a topic issue of *Journal of Genocide Research* (Routledge) on climate and genocide. The title of the issue is *Environmental genocide?--Climate change, mass violence, and the question of ideology*. Last June, **Alex Levine** (SOUTH FLORIDA) relayed the following call:

Anthropogenic climate change is the most fundamental challenge for humankind in the twenty-first century. Rising sea levels and the loss of agricultural land, severe weather changes and desertification are just some of the likely consequences that will drastically alter the living conditions of millions of people mainly in the Global South.

Climate change is therefore also of major concern to Genocide Studies. If we accept that collective violence is caused by crises, real or perceived, then environmental catastrophes will dramatically increase the likelihood of it occurring. This violence will be perpetrated by individuals, state-sponsored or systemic. It might lead to outright killing, forced migration or starvation. It will overlap with zones of violence that have been identifiable in certain regions for centuries or it might create new fault lines. It will certainly overburden our systems of prevention or containment, which are aimed at individual malfunctioning of the political and economic system, not however at systemic failures. It can be assumed that the occurrence of multiple crises will lead simultaneously to a cumulative radicalization of the response by the Global North. Even if it initially succeeds there will be a price to pay in form of compromising civil liberties or universal (human) rights. The defense of the "West" might render the "West" unrecognizable.

The *Journal of Genocide Research* is therefore inviting contributions from scholars of all disciplines for a special issue on 'Climate Change and Genocide'... Articles on the effects of environmental change on societies, on the link between change and violence and on local and transregional strategies to cope with environmental change and violence are particularly welcome. Articles may focus on specific regions, pursue a comparative approach or deal with international responses.

Dr. Zimmerer is now reviewing submissions. He writes that genocide studies are going through a transformation, and that this special issue is the attempt to orient the focus of the field on *sustainable prevention*, in order to respond to the crises spawned by the looming environmental changes. As it often goes with such innovations, there are preceded by preparatory work that is quite a bit older. Half a decade ago, Dr. Zimmerer published "From the Editors: environmental genocide? Climate change, mass violence, and the question of ideology," in *Journal of Genocide Research* 9 (2007): 349-351.

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§ 8. New continental approaches in climate philosophy—Heidegger, Derrida, and Levinas

When **Michael Zimmerman**, who wrote on Heidegger and deep ecology in the *Cambridge Companion* to *Heidegger*, started having second thoughts about sustaining such a link, it seemed there was small hope about Heideggerian approaches in environmental and climate philosophy. But then **Ruth Irwin** wrote her *Heidegger and Climate Change* (London: Continuum, 2009); **Henry Dicks** (BOURGOGNE) published "The self-poetizing Earth: Heidegger, Santiago Theory, and Gaia Theory" in *Environmental Philosophy* 8 (2011): 41-61; and **Casey Rentmeester** defended a dissertation on Heidegger and climate (*Ontological Analysis of our Environmental Crisis*, University of South Florida, 2012), so now all bets are off again.

Heidegger is not the only continental thinker whose work is being interrogated anew. Matthias Fritsch (CONCORDIA) gave a colloquium on Derrida and climate at the University of Alberta in 2011. Nathan Kowalsky (ALBERTA) sent the abstract and notes, "It was a really good presentation!"

Fritsch writes:

In the interest of exploring what 'continental' philosophers might have to contribute to some of the most pressing tasks of our time, I will seek to relate two Derridian claims to one another. The first concerns the relation between justice and time (see esp. *Specters of Marx*), the second the relation between time and taking turns (see esp. *Rogues*). Regarding the first, if normativity as such emerges with the temporal constitution of sociality, then justice between generations should not be treated as 'applied' ethics or mere 'extensions' of a concept of justice first developed by abstracting from the time of birth and death. Regarding the second, if one way of thinking time as discontinuous succession, so beyond the metaphysics of presence with its undue emphasis on stasis and linearity, lies in the idea of taking turns, then we might explore the idea of intergenerational justice as taking turns with certain 'objects' (e.g. democratic institutions). With and beyond Derrida, I will then ask when justice is best thought of as sharing by turns rather than by parts, and single out environmental concerns as a key arena. When wondering what we owe future people, I suggest that we do not primarily ask how we equitably cut up 'nature' like a cake, as distributive justice paradigms often do, but what it is for a time to take turns with future generations.

What goes for Heidegger and Derrida applies to Levinas. **William Edelglass** (MARLBORO COLLEGE) edited, with James Hatley (SALISBURY) and Christian Diem (WISCONSIN-STEVENS POINT), *Facing Nature: Levinas and Environmental Philosophy* (Pittsburgh: Duquesne University, 2012), 209-228. Contributors are Peter Atterton, Sylvia Benso, Christian Diehm, Doug Halls, James Hatley, Ed Mooney, Lyman Mower, Eric Sean Nelson, Diane Perpich, Deborah Bird Rose, J. Aaron Simmons, Mick Smith, and Ted Toadvine.

For this volume, Dr. Edelglass wrote the chapter "Rethinking responsibility in an age of anthropogenic climate catastrophe," which he sums up as follows:

If the consequences of my own daily actions are negligible, do I bear any responsibility for the suffering that results from climate change when cumulatively the consequences of our actions are catastrophic? In this chapter I argue against several recent views, that as individuals we are morally responsible for the

suffering that results from climate change, and to do so by drawing on the work of Levinas. Levinas provides a way of understanding how the singular subject's moral responsibility is the condition for the possibility of collective responsibility; this in turn allows for a response to those who make a strong distinction between collective action problems and individual action, and who conclude that individuals do not in fact bear any responsibility for climate change.

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§ 9. Inuit, Huron, and the Crow

Timothy B. Leduc (YORK) published *Climate, Culture, Change: Inuit and Western Dialogues with a Warming North* (Ottawa: University of Ottawa Press, 2011); and wrote "Ancestral climate wisdom: return to a thoughtful etiquette" in Schönfeld, ed. (2012), in press. The forthcoming essay begins as follows:

'Why don't researchers ever ask us about wisdom?' Almost a year after I began talking with Jaypeetee Arnakak on Inuit ways of thinking about northern warming, he asked me this question. From his position as an Inuit policy worker and philosopher, Jaypeetee stressed that wisdom, or *silatuniq* in Inuktitut, should be of central importance to anyone concerned with climate change (Leduc 2010a). Considering the significant changes that are occurring globally and in the north, a region that some describe as climate change's 'canary in the mine', it may seem highly impractical to shift our attention from practical questions of how to reduce our greenhouse gas emissions to that of wisdom. What may seem even more impractical is the argument I am going to make in this chapter: that a sustainable and just response to northern warming and global climate change may depend on our capacity to inspire climate research and politics with a wise way of thinking that is at root an etiquette toward the surrounding world.

Anthropologists call the ancestral lore of indigenous people "local knowledge". Local knowledge is a characteristic subject of anthropological study (think Lévi-Strauss's *Mythologiques*). But neither anthropologists nor any of their colleagues in other fields in the Humanities, the Social Sciences, or Philosophy ever thought about actually *learning* from what they studied. The idea of progress had become so foreshortened during the American Century that it was to the exclusion of ancestral wisdom. And while time and again environmental ethicists and naturalists have pointed to the need to learn, in an interdisciplinary fashion, from this anthropological study, no one really would really know how to do so. The Inuit world is just too different, it seems. Just read Dan Simmons' *Terror*. How could one ever bridge a shamanistic outlook to the legacy of the Enlightenment? Climate change illustrates the monumental screw-up of the *non-indigenous people* of the global village. If anything, this screw-up highlights a shortcoming of global, Western, specifically Anglo-American knowledge. I am skeptical that the Anglo tools that spawned the crisis can be made to fix the crisis. Leduc confronts Philosophers with precisely the question that needs to be raised now: "Why don't researchers ever ask us about wisdom?"

Byron Williston (WILFRID LAURIER) edited the excellent *Environmental Ethics for Canadians* (Toronto/Oxford: Oxford University Press, 2012), which has a chapter on First Nations' perspectives ('First Nations' is a Canadian English term for Native Americans). It contains "The sacred circle of life" by the Huron philosopher **Georges Sioui** (OTTAWA), on pp. 218-225; and "The 'Ecological Indian' and environmentalism" by *Trumpeter* editor **Bruce Morito** (ATHABASCA), on pp. 230-238.

In an excellent article, "Climate change and radical hope," forthcoming in *Ethics and the Environment*, Williston, like Leduc, interrogates First Nation perspectives on any wisdom relevant for the climate age. The hope Williston is interested in has little to do with the way **Allen Thompson** approaches hope (in "Radical hope for living well in a warming world" *Journal of Agricultural and Environmental Ethics* 23 (2012): 43-59). Thompson's 'radical hope' concerns the question of how all of us environmentalists can fend off discouragement as the crisis deepens. Williston's 'radical hope' concerns the question of how all of us *humans* can fend off despair when crisis yields to collapse.

Williston begins with a worst-case scenario à la James Lovelock. Such a civilization collapse would evidently be a dieback, but diebacks are obviously not the end of everyone. Some will prevail. The American Plains Indians suffered a dieback of their civilization in the nineteenth century, parallel to the collapse of the ecosystem their societies depended on, a collapse ushered in by the disappearance of the buffalo. Interestingly, one subtle cultural dimension of this collapse was that "nothing happened' in the cultural life of the people" (p. 2). A chieftain of the Crow, **Plenty Coups** or Aleek-chea-ahoosh (1848-1932), brought his tribe through the murderous period by negotiating with the genocidal American government in a way that looked a lot like a sellout to other besieged tribes, such as the Lakota. As Williston goes on to detail in his essay, Plenty Coup represents the leadership of radical visionary hope: Plenty Coups "hoped to preserve Crow *agency* in a world in which they could no longer do most of the things they had traditionally done, many of which were of central cultural significance." (p. 10)

Indigenous wisdom not only offers us insight on how to protect our habitat, but also on how to prevail when it is gone.

M.S.

Word Clouds:

Climate Ethics & Climate Philosophy

While Climate Ethics is now a stout branch, Climate Philosophy remains a budding twig. It involves preliminary articulations, under the ambiguous guise of 'climate ethics,' which was the title of the topic issue of *Journal of Global Ethics* 7 (2011) and will be the title (publisher's choice, because it googles better) of the 2012 expanded book edition. This twig is ethics, in that it concerns right and wrong, good and bad. But it's an ethics that has little to do with what the editors of the topic issue of *The Monist* 94 (2011) mean by "climate ethics". This difference pulls the two inquiries into mutual focus. The stout branch is analytic and purely normative. The budding twig is synthetic and naturalistic (in that splitting being-in-the-world from doing-the-right-thing, or metaphysics from morals, makes little sense in the context of sustainability).

I cull keywords from the two introductions —"Morality and climate change," by **Simon Caney** and **Derek Bell**, and my "Plan B: global ethics on climate change"— and use them to draw two clouds.

So here is analytical climate ethics .

CLIMATE CHANGE, ETHICAL ISSUES, IMPACT EVALUATION, UTILITY, HUMAN RIGHTS, NORMATIVE APPRAISAL, UNCERTAINTY, CHANGE, RISK, RESPONSIBILITY, STATE, INDIVIDUAL, CORPORATION, INTERNATIONAL INSTITUTION, BURDEN-SHARING, BURDEN-DISTRIBUTION, DUTY BEARERS, DUTY DISTRIBUTION, POLLUTER-PAYS-PRINCIPLE, EXCUSABLE IGNORANCE, DEVELOPMENT, DEVELOPING COUNTRY, INTERGENERATIONAL EQUITY, APPLICATION, ECONOMICS, DISCOUNT RATE, EMISSIONS TRADING, GEO-ENGINEERING, POPULATION CONTROL, NUCLEAR ENERGY

And there is **climate philosophy** ...

CLIMATE CHANGE, CATASTROPHE, HISTORY OF CIVILIZATION, FUTURE, URGENCY, ETHICS, PHILOSOPHY, WORLD, ANCESTORS, MODERNITY, RADICAL DIFFERENCE, COLLECTIVE, NEW REALITY, INTEGRATIVE REALITY, BEING-IN-THE-WORLD, JUNCTURE, EXISTENTIAL CONTEXT, THE RIGHT PATH, SUSTAINABILITY, MITIGATION, RESILIENCE, PARADIGM SHIFT, OBSOLESCENCE OF NORMALCY, WORLD WISDOM, ECOSOPHY, BEING-AT-THE-LIMIT, CONSILIENCE OF INFORMATION, SYNTHESIS, CULTURAL MALADAPTATION, CIVIL EVOLUTION.

Another Planet, another Paradigm:

Thoughts on Shrader-Frechette's take on Arnold.

Christian Wenzel (TAIWAN NATIONAL) pointed me to Kristin Shrader-Frechette's (NOTRE DAME) review of *The Ethics of Global Climate Change* ed. by Denis Arnold (2011). It appeared 7/17/11 in *Notre Dame Philosophical Reviews*. It is a sharply argued critique that tries, not quite successfully, to be even-handed. But when I followed the reasoning almost to its end, trusting in the reviewer's lead, I stubbed my philosophical big toe, painfully, on two sentences that jut out from the prose:

If practical ethics is to be practically useful, it needs to address concerns that real people in the real world have. If practical ethics is to be intellectually respectable, it needs to provide second- and higher-order analyses, including classic objections—not mostly provide first-order arguments for a particular stance.

Yikes. These are painful phrases! They create a sharp divide between Shrader-Frechette's outlook and Climate Philosophy. They are also puzzling. Why would a careful thinker use the pleonasm *practical ethics*? Is ethics not already practical philosophy? And if practical philosophy wishes to be *even more practical* than it is, how can it be so, on a future-oriented topic, by addressing "concerns [of] real people in the real world"? Would this not limit us to the present? Should we not rather think about tomorrow?

Then there is the aspiration to be "useful". Business people are useful. There is a place for useful reasoning in the interstices between Philosophy and Law, or Economics, or Risk Analysis. But why should *philosophy* aspire to be useful? Zhuangzi was not useful. Hegel was not either. And was Kant?

Put differently, if utility is our goal such that philosophical concerns about the climate crisis are supposed to be useful, then they will stop being philosophical concerns. From that point on, philosophy deflates, like a failed soufflé, into either environmental education or environmental engineering, into either preaching or tinkering. But I trust Philosophy will always be richer than that.

Finally there are the conditions on intellectual respectability: that, as Kristin warns, ethics must provide "higher-order analyses, including classic objections"; and that "first-order arguments for a particular stance" are insufficient. Oh, really? This strikes me as excessively optimistic—as if we could deal with the emerging reality of climate change without having to change the ways we value and think. Kristin assumes that Climate Ethics can prevail as a mere add-on to conventional Anglophone Analysis, and that, as an add-on, it should aspire to intellectual respectability, while assuming that intellectual respectability will remain invariant even though the world around it staggers and lurches into a wholly new order. It would seem to me that it is rather the first-order arguments she scorns that are of utmost importance now. We need fresh ideas! In a crisis as multidimensional as ours it is more vital to connect the dots—to craft syntheses—and design new visionary stances, than to keep analyzing what has gone wrong.

Symposium

Understanding human responses to climate change in prehistory

Climate modelers are increasingly taking advantage of the rich record of climate variability that can be discerned in prehistoric times, as higher resolution of the chronology of climate events becomes available. Such precision certainly will be important in our understanding the bio-physical processes of climate change. However, insofar as there is a need to urgently address climate change through mitigation and adaptation, it may well be of equal importance that we make progress in understanding the human responses to drastically changed climate conditions that people had to face in the past.

Research on human responses to climate change, as experienced in prehistoric periods, generally has been conceived in terms of changes in hunting and gathering behaviors, evidenced in changes in diet, migration patterns, altered trade routes, and so on. Interestingly, throughout much of our species' existence, human beings have accompanied their life-ways with artistic expressions of ornament, mobile art and rock art. We propose that this record of relatively permanent, non-linguistic and often aesthetically appreciable, manifestations, may help us understand how climate changes in the past may have impacted people's lives.

For this reason we plan to organize a symposium for researchers produce a first general overview of what we know about human responses to climate change as contained in the rock art and mobile art record. The process of coming to understand through pictorial means how climate change has been understood in prehistoric times should provide ample material for philosophers to consider in terms of epistemology, metaphysics, ethics and aesthetics. Further details will be forthcoming at a later date.

If interested in participation, please contact:

Dr. Thomas Heyd

Department of Philosophy University of Victoria Victoria, British Columbia V8W 3P4, Canada Email to heydt @ uvic.ca

Conference

The History and Philosophy of Climate Science

The International Conference on Culture, Politics, and Climate Change

A Conference on the History and Philosophy of Climate Science will be held at the University of Colorado at Boulder 14-16 Sept 2012. It will share speakers and sessions with the interdisciplinary Conference on Culture, Politics, and Climate Change at the same location 13-15 Sept 2012.

Submissions for the History & Philosophy of Climate Science conference are due <u>MAY 15</u> and should be send to Dr. **Ben Hale** (Email: bhale @ colorado.edu), Dr. **Carol Cleland** (Email: carol.cleland @ colorado.edu), and cc'd the organizer account (Email: RCHPS @ colorad.edu). Acceptances will be announced 1 July 2012

For more information, please see the webpage at http://colorado.edu/philosophy/chps/conference.htm

For more on the concurrent International Conference on Culture, Politics, and Climate Change, please see the conference website at http://www.climateculturepolitics.org/

Question:

What works as Service Learning Requirement in Climate Philosophy?

Dr. Christopher Kirby (EASTERN WASHINGTON) writes:

"Starting in April, I'll be offering my environmental ethics course with a service learning requirement. I'm attaching the assignment so you can get an idea of what I have in mind. My research in environmental philosophy is heading more towards pedagogy and delivery methods, so it might be helpful if you could solicit your readers for suggestions about service learning projects with regard to climate philosophy.

"Please ask them to contact me directly in the Philosophy Program of Eastern Washington University in Cheney, WA (email to CKIRBY @ ewu.edu) or simply share with the listserv. Thanks! -CK"

Here are the details:

PHIL 447 Service Learning / Term Paper Assignment

<u>Due Date:</u> Last day of the class.

Length: 10-12 pages (2500 words is the minimum!)

Requirements:

- 1. Select one of the following topics.
- 2. Complete at least 4 hours of volunteer work at the associated organization.
- 3. Conduct scholarly research on your topic and complete a literature review of 5-7 sources. (3 pages in length, due two weeks before the paper)
- 4. Include this cover sheet with your name, topic discussed, and word count.

Animal Rights & Liberation

Essay Prompt: To what extent do animals deserve moral consideration? What will it take to shift prevailing moral attitudes away from traditional anthropocentrism and toward more biocentric perspectives?

Suggested Readings: Jeremy Bentham's *Introduction to the Principles of Morals and Legislation*; Peter Singer's *Animal Liberation*; Paul Taylor's "Biocentric Egalitarianism"

Service Organization: **SpokAnimal** – "Volunteers represent the shelter at events and fundraisers. They work directly with the animals in the shelter or behind the scenes." http://www.spokanimal.org/

Wilderness: Conservation vs. Preservation

Essay Prompt: How should we treat the world's remaining wild places? What is the philosophical significance of wilderness as a concept, and how might the way we think of wilderness affect our moral decisions?

Suggested Readings: Rachel Carson's *Silent Spring*; Roger Paden's "Two Kinds of Preservationist Ethics"; Freya Mathews's "Letting the World Grow Old" Service Organization: **Turnbull.** "Turnbull National Wildlife Refuge has opportunities for individuals with special skills and interests to assist with wildlife research, environmental education, administration, maintenance, habitat restoration, and trail maintenance"

http://www.fws.gov/turnbull/getinvolved.html

Land Ethic and Eco-centrism

Essay Prompt: To what extent does the land deserve moral consideration? How might a shift to eco-centric attitudes change our moral lives?

Suggested Readings: Aldo Leopold's A Sand County Almanac; James Lovelock's Gaia: A New Look at Life on Earth; Arne Naess, The Ecology of Wisdom

Service Organization: **The Lands Council.** "We preserve and revitalize Inland Northwest forests, water, and wildlife through advocacy, education, effective action, and community engagement"

http://www.landscouncil.org

Sustainability in Urban Planning

Essay Prompt: What is the best way to live in an urban center? How can we use limited resources more efficiently? Do such values necessarily change the way we organize our urban areas? Or our daily lives?

Suggested Readings: James Kunstler's *The Long Emergency*; William Rees's "Sustainable Development"; Bryan Norton's "Sustainability, Human Welfare and Ecosystem Health" Service Organization: **Sustainable Works** – "Sustainable Works exists to manifest the concepts of sustainability and the actions associated with living a sustainable lifestyle into the daily activities of individuals, institutions and businesses. We accomplish this by providing hands-on, interactive, educational experiences, serving as a liaison between governments, institutions, businesses and individuals and fostering community development." http://www.sustainableworks.org/

Review:

Stephen Gardiner's Perfect Moral Storm (Oxford 2012)

By Andrew Winters (USF)

In A Perfect Storm: The Ethical Tragedy of Climate Change (OUP 2011), Stephen M. Gardiner recasts the ethical dilemmas posed by climate change in terms of three 'moral storms': the global, intergenerational, and theoretical. Gardiner provides sophisticated arguments that offer new insights to the ethics of climate change and also provide the student with a model of how to apply philosophy to matters of public concern. The book is written in a way that also addresses the intelligent lay person who seeks to understand the moral issues of the climate debate. Gardiner achieves this by noting where a general reader may skip details of interest to the specialist without losing track of the overall argument.

This book is a welcome contribution to the wave of publications in environmental ethics that have shifted the focus from examinations of the value of nature to what should be done about climate change. This trend transforms the philosophical discussion of the environment from one narrowly based in aesthetics and ethics to one that draws upon resources found in applied ethics, political thought, economics, philosophy of science, and metaphysics. Gardiner utilizes these resources to show how older approaches, such as cost-benefit analysis, are inadequate. Appeals to scientific data on the severity of climate change ground his argument that failure to respond to climate change is morally reprehensible.

The text consists of twelve chapters and two appendixes (in which Gardiner provides thoughtful critiques of Hardin's tragedy of the commons and Chriton's discussion of knowledge and climate). The main sections of the book, excluding an initial overview and a section discussing implications, follow the theme of the three moral storms. In outlining the individual storms, Gardiner aims to reframe the climate issue. Looking at ethical problems through theoretical lens only would make the search for a solution to a real life problem "shallow." Pure theoretical approaches undercut our ability to appreciate the gravity of the situation. For these reasons, Gardiner's "aim is to characterize our predicament—humanity's and especially that of richer nations and peoples" (xi).

Using the metaphor of a perfect storm (inspired by Sebastian Junger's book of the same title), Gardiner believes that the dilemmas posed by climate change have detrimental implications for our ability to act morally. He writes,

The peculiar features of the climate change problem pose substantial obstacles to our ability to make the hard choices necessary to address it. Climate change is a perfect moral storm. One consequences of this is that, even if the difficult ethical questions could be answered, we might still find it difficult to act. For the storm makes us extremely vulnerable to moral corruption (22).

The first storm is the global nature of climate change. This is the issue that "the world's most affluent nations, and especially the rich within those nations, have considerable power to shape what is done, and to do so in ways which favor their own concerns, especially over those of the world's poorer nations, and poor people within those nations" (7). The asymmetry of power is further exhibited in the second storm, which concerns the abilities of the current generation to "affect the prospects of future generations, but not vice versa" (ibid.). Traditional normative approaches would have the first two storms calmed by appeals to some theory. The asymmetries of the first two storms whip up a third storm, which concerns how we go about developing our scientific theories and social policies. As the third storm illustrates, "existing theories are extremely underdeveloped in many of the relevant areas...This not only complicates the task of behaving well, but also renders us more vulnerable to the first two storms" (ibid.). The asymmetry of power already in place within the first two storms tempts "us to distort our moral sensibilities in order to facilitate the exploitation of our global and intergenerational position" (8).

That climate change is a perfect storm results from eight propositions Gardiner believes we have good reasons for accepting. The first proposition sum up our emissions crisis: "We are currently accelerating hard into the most serious global environmental problem that humanity has ever faced...we continue to add more fuel to the fire, faster and faster, producing an almost exponential rise in anthropogenic emissions of carbon." (xi) The second proposition is the dubious framing of climate change. Although the threat of climate change has been expressed in scientific and economic terms, Gardiner maintains that the issue is fundamentally ethical because of the harmful impact climatic changes will have on the global poor, future generations, and nonhuman life. The third proposition is the immense challenge we have before us. Since the problem is global, intergenerational, and theoretical, and since our current institutions attempt to compartmentalize issues before assessing the issues, our institutions are inadequate. The fourth proposition is that current methods for dealing with climate change are inadequate as well. This is due to climate change being analyzed in terms of a prisoner's dilemma or a tragedy of the commons; neither of which works, because doing so fails to take into account many of the ethical issues inherent in the problem (e.g., intergenerational asymmetries). The fifth proposition is that the problem is perpetuated because are our own judges in evaluating institutions and methods. The sixth proposition indicates how we are often satisfied with "shadow solutions" that do not settle the actual issue (e.g., cap and trade). The seventh proposition points to a potential way for dealing with these issues. "We should work as hard at identifying bad arguments, policies, and theories as on developing the good; and we must pay attention to the ways important values are articulated, since the likelihood of their perversion is high" (x). The eighth proposition is that we should grapple with scientific uncertainty, intergenerational ethics, and intergenerational justice while further honing our ethical theories.

The propositions clarify the climate crisis. Gardiner asserts that we have strong reasons for believing that climate change poses a potentially catastrophic threat to life, that scientific concern about the threat is robust, and that people in all nations share a responsibility to address the threat (5).

Gardiner provides evidence to support his propositions and then defends his proposal that the climate problem needs to be reframed in terms of the perfect storm. I believe that his arguments are clear and that he adequately supports the reframing of the climate problem. But readers may not necessarily be happy with this reframing. The conventional conception of the climate problem already leaves many

intelligent and intellectually sincere people with a dispiriting sense of dread. This makes one wonder whether reconceiving the issue in the even bleaker terms of a perfect storm will help to improve matters. Ethicists may also be overwhelmed by the complexities of the perfect storm. Since our institutions are part of the storm, theorists may be deterred from adopting Gardiner's model.¹

Gardiner anticipates these concerns in considering how we are to go forward. We can identify two attitudes that an ethicist might be inclined to adopt: *ideal ethical theorizing* and *ethics of transition*. Ideal ethical theorizing aims "to work out the best way in which to deal with some domain or issue in an otherwise neutral...practical setting" (399). This approach takes an ethical issue out of its material context and places it in a theoretical "laboratory" to better understand that problem. But since the way we come to understand the problem is stripped of other factors that made the problem to what it is, we often fail in rectifying the problem in its original setting. Climate change is no exception. To deal with it in a purely theoretical setting seems to strip climate change of its salient problems. As Gardiner's metaphor of the perfect storm indicates, understanding climate change only in terms of current impacts fails to take into account impacts on future generations. Similarly, understanding climate change only in terms of current institutions (that are dominated by the highly developed nations) is to lose sight of the possibility that their framing fails to take into account the quite different perspectives of developing nations (as COP-15 Copenhagen had shown). All of this suggests that examining climate change stripped of any one feature is to commit an injustice. Thus approaching it from a purely theoretical perspective is unethical.

This leads us to an ethics of transition. From this view point ethicists "articulate how we might proceed ethically starting from existing, and sometimes deeply constrained or ethically compromised, social realities in the direction of better solutions and general circumstances" (400). There appear to be at least two benefits to this approach. First, since our ethical theories are incomplete, and climate change is a threat, we need to take action without a guiding theory. Second, by at least attempting to take into account all of the dimensions of the unfolding changes we will be less susceptible to committing unethical actions.

Gardiner endorses this transitional approach and discusses what results from it (436-7): ethical concerns are already at the basis of international climate policy; scientific uncertainty does not justify inaction; precaution is theoretically respectable; past emissions matter (historical accountability); intergenerational burdens should fall predominantly on developed countries; specific intergenerational trajectories require ethical defense; the right to self-defense is an important but sharply limited rationale; and individuals bear some responsibility for humanity's failure.

I am sympathetic to these claims and to the preference for the ethics of transition over a purely theoretical approach to the problem of climate change. Although Gardiner does give a nod to ideal ethical theorizing, I feel that he doesn't spend enough space examining what role it may assume in dealing with the problem of climate change once framed as a perfect moral storm. I believe he should have discussed this because many ethicists are concerned with climate change but approach it from this theoretical standpoint. So it may have been of interest to these ethicists to see how the storm model fits into their methodology. Otherwise, Gardiner may be taken to be dismissing their current approaches to the problem.

¹ This reading can be challenged, for Gardiner addresses this concern in Skrimshire (2010). See p. 50 below. M.S.

In addition to underplaying the role theoretical approaches may have, the focus on the ethics of transition brings with it its own problems. Most notably is the difficulty of defining the social reality in which a problem is found. If the actual constrained starting position for each ethical issue is different for each person, then how we target and assess policies relating to an ethical issue will shift according to the perspective from which the problem is analyzed. These difficulties are compounded when we consider ethical issues in relation to communities and cultures. Without appealing to some theoretical concept, I doubt there is any way to justify how a person, community, or culture responds to an ethical dilemma. This difficulty may further highlight the need for a shift in how we provide justification for actions in addition to how we approach ethical issues in general. In line with this shift, Gardiner recommends additional tasks that may make the ethicist (and the philosopher, in general) relevant to society. Among these tasks are the interpretation, reconciliation, and implementation of relevant values; the assessment of whether conventional values should be challenged or not; and the determination of how to address the fact that those who openly commit themselves to some values have failed to be guided by them.

All this suggests that even though Gardiner focuses on climate, he is chiefly concerned with how ethics is done. He writes, "I explore the perfect moral storm through a discussion of one central example, that of global climate change. I do so both because this is the leading environmental problem of our age, and because it is an especially good example of the storm" (8). I think that the perfect storm model is useful for conceptualizing other ethical problems. This lets us reconsider ethical issues in terms of the conditions in which we find them. Although someone may suggest that this is how applied ethics is traditionally done, I believe that the perfect storm model is different, because it takes into account the underpinnings of how we approach ethical issues.

To summarize: The failure of adequately responding to climate change is due to a failure of understanding it. Framing the climate problem anew allows us to devise a better response. Gardiner frames the climate problem as the intersection of three storms that have led to our moral failure in dealing with the problem. They are the global, intergenerational, and theoretical storms. By reframing climate change as the perfect moral storm, Gardiner believes we can take accountability for our impact on future generations, the poor, and the earth. The book provides scholars, students, and citizens with thoughtful reasons for reconceiving the climate problem, and it is an incentive to develop better tools for dealing with the issue. All in all, I believe Gardiner shows how a philosopher can make meaningful contributions to the field while managing to keep in touch with the everyday world.

Andrew Winters

Review:

Stefan Skrimshire's Future Ethics: Climate Change and Apocalyptic Imagination (Continuum 2010)

By Jon Minnick (USF)

The essay collection *Future Ethics: Climate Change and Apocalyptic Imagination* edited by Stefan Skrimshire, and with a foreword by Alastair MacIntosh, has contributions by the Skrimshire ("How should we think about the future?"), Frederick Buell ("Environmental apocalypse: history and prospects"), Mike Hulme ("Four meanings of climate change"), Mark Levene ("The apocalyptic as contemporary dialectic"), Stephen Gardiner ("Abrupt climate change, political inertia, and the possibility of an intergenerational arms race"), Chris Groves ("Living with uncertainty: the limits of 'risk thinking'"), Sarah Amsler ("Bringing hope to crisis: crisis thinking, ethical action and social change"), Roman Krznaric ("Empathy and climate change: proposal for a revolution of human relationships"), Andrew Bowman ("The scientization of politics in the radical environmental movement"), Richard McNeill Douglas ("The ultimate paradigm shift: environmentalism as antithesis to the modern paradigm of progress"), Stefan Skrimshire ("Eternal return of apocalypse"), Celia Deane-Drummond ("Beyond humanity's end"), and Peter Scott ("Are we there yet? Coming to the end of the line").

The book is an attempt at narrowing the field of discussion found within environmental ethics while keeping a multidisciplinary approach. The focus is on climate change within the broader discussion of environmentalism as well as with regard to the ways we think of the future impact of present actions. Skrimshire includes discussion points from many parts of a multidisciplinary network relevant to the focus of his anthology, covering social theory, policy, psychology, scientific practice, and religion.

Skrimshire points out that the carbon crunch and the current climate crisis is finally hitting mainstream consciousness and that, in turn, affects many different aspects of life. One overarching goal of this collection is to contribute to a fundamental shift in our thinking to survive the oncoming crisis. The different viewpoints covered include political, economic and technological responses to this crisis. Skrimshire aims to show that these responses are not enough, and that, instead, we need to have:

² Editorial note: It must be pointed out that Skrimshire writes from a British perspective, and that climate denial, in the U.K., is the view of an "<u>out-of-touch fringe</u>," as Damian Carrington notes in *The Guardian* 2 May 2012. 83% of U.K. citizens see climate change as a current or imminent threat, while 10% do not believe climate change is real. As climate denial at the Florida Philosophical Association illustrates, matters in the USA are rather different. M.S.

A shift from seeking fulfillment primarily from the things of outer quantitative consumption, and a move to the more qualitative realms of empathy in relationships, elemental connections to nature, a depth of community, sensitivity to beauty and a deepening of the inner life. (x)

While Skrimshire does not explicitly reference the Kuhnian terminology of paradigm shifts, he nonetheless echoes the sentiment of changing frameworks. This book aims to suggest both how we can reach this necessary new stance as well as how we can identify the failures of current theory and practice to bring about this change.

The book has four parts. The first part ("History") looks at the way different historical models of the future have altered social behavior, cultural norms and political allegiances. The second part ("Ethics") aims to show that our current ethical theories are inadequate to deal with the uncertainty contained in the climate crisis. The third part (Action/Inaction") explores ways to account for the gap between awareness of the crisis and our unwillingness to act upon it. The final section of the book ("Religion") identifies how religious heritage shapes our engagement with the notion of 'the end'. Each of the four parts takes different approaches to reach Skrimshire's ultimate goal.

Part I (Buell, Hulme, Levene) covers three ways of how we have arrived at the crisis situation. Buell suggests that we reinvent how we view apocalypse. He thinks that we need to think of climate apocalypse not as a one way destination of doom, but rather as a way of life; we should be continually reminded of our plight. Hulme suggests a way to embed culture in our understanding of climate change. Viewing climate change as apocalypse leads to being counterproductive towards action. The idea is to use the magnifying power of climate change to identify what we really want to achieve for humanity. Levene aims to show that the current commonly held view is based on a belief that there are technological solutions to all problems, and that the appropriate response to crisis is to scale these fixes up accordingly no matter the long term consequences. It is this view that ultimately leads to climate apocalypse. These selections give reasons for why we need to change our current framework. It would be a Herculean task to sample all of the historical processes that have led us to our crisis, and unfair to expect Skrimshire to attempt to gather contributions with such a broad scope. What he does show us are where aspects of our current perspectives come from, how they relate to apocalyptic imagination, and why they have failed.

Part II (Gardiner, Groves) consists of looks at failings of ethical theory in relation to climate change. Gardiner explores the implications of moving from a gradual change framework to an abrupt crisis paradigm. He argues that switching to an abrupt change paradigm would not undermine the usual concerns already present. So the root moral corruption remains. He also argues that the abrupt change paradigm may make positive action towards a solution to the crisis more difficult. It also worsens our current lack of care for the future. Groves identifies problems with the current view of risk thinking and suggests that we need a new way to live in, and with, uncertainty. The proposal for accomplishing this is to connect with future generations and to non-humans. Both of these contributions ultimately identify the failure of our current theories as stemming from our inability to account for the future. More specifically, in order to fix our current theories, we need to expand the realm of our ethical considerations to people that we will never meet due to separation of space and/or time. This section provides compelling arguments for why we should (and need to) change our current framework.

Part III (Amsler, Krznaric, Bowman, McNeill Douglas) consists of different ways of making make sense of the inaction that stifles progress towards a resolution of the climate crisis. There is a general gap between having knowledge of the climate crisis and spurring people into appropriate action. Each contribution to this part contains ideas as to how we might bridge this gap. Amsler suggests that crisis thinking can lead to the possibility that it disrupts the flow of historical time and consciousness of the public and opens up the space for criticism and alternative imaginaries. Krznaric identifies that economic, moral, and other arguments have not been enough to spur action. The suggestion is that empathy is the missing factor, and adding it will lead to automatic action. Bowman looks at the relation between activism and climate science. The goal is to illuminate a potentially dangerous and almost unconscious tendency in which having only a scientific understanding of the issues will fail to reach a real solution. What is needed is an environmentalism that engages more fully with the political, ethical and economic aspects of climate change. McNeill Douglas argues that the failure to decisively alter the direction of politics is due to environmentalists failing to recognize that the physical limits thesis is philosophical and based on undeniable physics, and cannot be overcome with a technological fix.

In regards to Skrimshire's project, it appears to me that this section does not quite adequately reach its goal. Up to this point, the reader learns about the myriad of problems that we face due to our current framework, and the reader also learns why a new framework is in order. Part III aims to show us how to achieve this necessary change in viewpoint, though it only gives us a glimpse of what needs to be done, rather than suggesting how the changes might actually be implemented. It is only chapter seven, by Krznaric, that really aims to try to fix the problem through concrete suggestions. The other chapters succeed in showing some problems associated with the knowledge/action gap, though they do not claim that understanding these aspects of the gap will lead to action. All of the essays contained in this part of the book indeed support Skrimshire's intended new framework in relation to a theory for action, yet all but one fail to suggest how to bring this framework into being.

Part IV (Skrimshire, Deane-Drummond, Scott) investigates the relation of apocalypse to religion. Here, the selections take a step back from *climate* apocalypse specifically, and instead look at different ways we conceive of apocalypse in a broader and slightly more abstract fashion. Skrimshire argues that the idea of the future apocalyptic as a finality functions as a smokescreen. We need to move to a 'life in the midst of a crisis' viewpoint, of which our actions are a part of the unfolding. This echoes the thesis argued for earlier by Buell. Deane-Drummond suggests that we look at the unfolding crisis in terms of a drama rather than a narrative or epic. The narrative reading leads to a fatalistic attitude and a resignation of action. Characterizing apocalypse as drama allows for a greater sense of individual importance and an improved ability to respond. Scott, finally, attempts to show that the apocalyptic attitude needs to be developed in terms of political theory, otherwise it will be de-politicizing and demoralizing.

The first three parts of Skrimshire's collection have a good narrative flow, moving from how we have arrived at the crisis to failures we have at present, to suggestions for spurring people to future action. The fourth and final part feels slightly out of place. It reads a bit like an afterthought, added only in order to account for the religious associations with the word 'apocalypse'. Though slightly jarring in terms of placement and flow, this section is still necessary. I think Skrimshire is correct in dedicating space to the

religious aspects of apocalypse precisely because it is a religiously laden word. Not including this section would ignore a vital aspect of the project he has brought forth in this collection.

Skrimshire acknowledges that 'apocalypse' in current usage is most commonly associated with either Judaism or Christianity, and he keeps the discussion focused on these two religions. Although the majority of humankind does not stand under the ideological umbrella of Judeo-Christian belief-systems, this reduction of scope is nonetheless fitting for the purposes of the book. This is primarily due to two reasons. The first is that the very notion of 'apocalypse' is either missing in other religions or lacking in the centrality it has in the Judeo-Christian tradition. The second is that it is the West that has perpetrated the climate crisis, and that the ideological superstructure of Westerners, especially in terms of the U.S. American hegemony, has been Judeo-Christian. While it would be an interesting enterprise to investigate how other creeds have shaped the way people view climate, it would be out of place in this collection.

Skrimshire gathers a multidisciplinary group of authors and brings to the forefront the charge that we do in fact need a fundamental shift in thinking. He shows that were we to continue on with business as usual, then we will fail the challenges brought on by the current crisis. This collection of essays shows that we must include an empathic and ethical bond with the people of the future in order to reach this shift. In this capacity, the collection succeeds.

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