

Confronting Climate Change*

Mondays, 11:15am-1:45pm, 441 Statler Hall

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Contents

1 Preamble	2
2 Executive summary and learning outcomes	2
3 Motivation	2
4 Notes for participants	3
4.1 The prerequisites	3
4.2 Diversity, inclusion, and ground rules for discussion	3
4.3 Credit and grading	4
5 Themes and readings	4
5.0 Background reading	4
5.1 Week by week readings	5
6 Sample project topics	8
6.1 Cornell scorecards	8
6.2 City, county, state scorecards	8
6.3 Local and Indigenous voices	8
6.4 Direct action	8
Appendix A Entry / exit survey	9
A.1 Free-form text, I	9
A.2 Questions	9
A.3 Free-form text, II	9

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Soyez réalistes, demandez l'impossible
(Be realist, demand the impossible)

— a May '68 slogan

1 Preamble

Cornell University is located on the traditional homelands of the Gayogohó:nq' (the Cayuga Nation). The Gayogohó:nq' are members of the Haudenosaunee Confederacy, an alliance of six sovereign nations with a historic and contemporary presence on this land. The confederacy precedes the establishment of Cornell University, New York state and the United States of America. We acknowledge the painful history of Gayogohó:nq' dispossession and honor the ongoing connection of Gayogohó:nq' people, past and present, to these lands and waters.

Cornell's founding was enabled in the course of a national genocide by the sale of almost one million acres of stolen Indian land under the Morrill Act of 1862. To date the university has neither officially acknowledged its complicity in this theft nor has it offered any form of restitution to the hundreds of Native communities impacted. For additional information, see <https://blogs.cornell.edu/cornelluniversityindigenoussdispossession/>.

2 Executive summary and learning outcomes

This course on the climate crisis acquaints the students with the social and psychological factors underlying ecocidal anthropogenic climate change and the possible avenues for its mitigation, with a particular focus on climate justice and Indigenous knowledges and ways of relating to nature. In parallel with reading and discussing primary literature on these topics, students work on research projects, aiming to complement theory with practice and place it in the local geopolitical context.

3 Motivation

This course engages with the single most important problem that we face today, both as individuals and collectively as a species: anthropogenic **climate change**, an accelerating global catastrophe caused by human actions (UN Environment Gap Programme, 2023). It is intended to complement local community efforts by Cornellians and Ithaca townspeople concerning climate change and climate justice.¹ To that end, it offers students (1) exposure to primary sources across multiple relevant disciplines, notably political science, psychology, sociology, and anthropology; and (2) opportunities for hands-on action.

In pursuit of the first of these goals, students read and discuss primary-literature publications (peer-reviewed journal papers and book chapters) on climate change and climate justice. Findings and ideas that can help in planning for effective action are foregrounded. The second goal is served by the term projects being explicitly tied to action. For instance, students may choose to work on identifying and cataloging climate-related issues embedded in Cornell's curriculum, daily operations, planning, endowment, and governance, as well as corresponding issues arising in Ithaca, Tompkins County, and New York State. Another possibility is designing, planning, and carrying out local nonviolent direct action (NVDA) aimed at advancing climate justice.

¹Per the mission statement of the *Cornell on Fire* collective; see <https://cornellonfire.org>.

The stress on **climate justice** is of key importance here, for at least two reasons. First, while technologies for mitigating climate change are being developed, their deployment is predicated on political will, rather than abstract science or engineering (e.g., Nightingale *et al.*, 2020; Sheather, 2021). This makes it a matter of social justice, akin to combating poverty and other sources of preventable suffering (Edelman, 2020, ch.32; Edelman, 2023a, ch.6). Moreover, given the enormity of the climate crisis and its roots in capitalism (cf. Edelman, 2023a, ch.5), nothing short of a radical transformation of the global socio-economic system will serve to reverse its catastrophic effects on the planet (Edelman, 2023b).

The second reason for stressing climate justice is that the deployment of purely technological solutions is all but assured to spell further disaster for those members of the planet's population who have contributed the least to climate change, yet are poised to suffer the most from its consequences (Nightingale *et al.*, 2020; Vaishnav, 2023). One such group is the people in the Global South. Notably, another group that has historically always suffered the most from ecocide is the Indigenous peoples throughout the world, who are even now at the forefront of the struggle for environmental justice (Martínez-Alier, 2023), just as the Western science is rediscovering the critical importance of **Indigenous knowledges and practices** in ecosystem stewardship (Wall Kimmerer, 2013) and in pedagogy (Jimenez and Kabachnik, 2023).

For all these reasons, the focus of this course is not on climate change mitigation technologies (which are the subject of much research and teaching at Cornell), but rather on the human aspects of climate change and climate justice. For these to be acted upon, they must be explored and evaluated by the people who are inheriting the present catastrophe — the younger generation. Climate change pedagogy is increasingly recognized as critically important for the future of the planet (Kretz, 2014; McCowan, 2022, 2023; Suarez *et al.*, 2024). This course is an attempt to meet the challenges, in a setting that combines traditional instruction with applied projects.

4 Notes for participants

This section contains essential information for participants: format description, inclusion statement,² ground rules for discussion, and credit requirements.

4.1 The prerequisites

Sophomore standing or permission of instructor.

4.2 Diversity, inclusion, and ground rules for discussion

Unlike in a large-enrollment lecture-based course, in which some students may choose, and succeed, to remain virtually anonymous, in a small-class seminar setting you are required to speak in front of the class (when presenting) and are expected to contribute to the discussion on other occasions. Because *your* informed opinion on every aspect of the material is unique and valuable, I shall strive to facilitate the conversation so as to make all voices heard. In this, I'll be counting on your help, and on the help of your classmates.

Even matters of “consensus” are not always easy to talk about, as the rare dissenters who dare voice their opposition know full well; how then should we approach potentially controversial topics? With care and compassion, diligence, openness, and daring: care for our shared humanity; diligence with regard to

²The remarks in section 4.2, which are specific to this course, are intended to supplement the official Cornell statement on diversity and inclusion, which covers dimensions such as gender, race, socio-economic background, etc., and which can be found here: <https://diversity.cornell.edu/>.

the relevant knowledge and findings; openness to informed dissent; and daring to venture into uncharted territory, as befits good education.

If at any point during the semester (no matter whether in class or after hours) you feel that you need to talk about any of these things, please let me know immediately — doing so will be my top priority.

4.3 Credit and grading

1. **Grading.** To get credit in this course, full commitment is expected.³ This means:
 - (a) Following the attendance guidelines (see below).
 - (b) *Entry and exit surveys (10%).* After the first and before the last meetings of the semester, students will complete a brief survey of attitudes to and thoughts about climate change (see Appendix).
 - (c) *Participation in the ongoing class conversation (45%).* This is a seminar, not a lecture course — it is expected that students will participate fully in class discussion. In partial fulfillment of that objective, each person will choose a passage from the weekly assigned readings and be prepared to present the passage to the class, explaining its importance to the work as a whole and the weekly theme. Post your choice, along with any comments and questions, to the designated weekly thread on Canvas, by 8am on the Monday for which the readings have been assigned.
 - (d) *Completion of a term project (45%).* By Labor Day (September 2, no class), choose and post on Canvas (under the *Projects* thread) the topic of your final project. Group projects are encouraged. Some possible topics are listed in section 6 below; others might be accepted, by coordination with the instructor. Be prepared to briefly present your completed project at the last meeting of the semester. Submit a brief written summary of the project by the end of the exam period.
2. **Attendance.** For the class to carry on a meaningful conversation over the course of the semester attendance is required at all classes without exception. Excused absences will only be given by the instructor for illness, religious observance, and family and personal emergencies, which do not include deadlines for work due in other classes or the pressure of exams. Unless circumstances prohibit, the person seeking an excused absence must get in touch with the instructor in advance of class to request the absence.

5 Themes and readings

5.0 Background reading

The first set of readings consists of two books and one paper that provide the backdrop for the entire semester.

- Doctorow, C. (2023). *The Lost Cause*. Tor Books, New York, NY.
- Wall Kimmerer, R. (2013). *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*. Milkweed Editions, Minneapolis, MN.
- Cheyfitz, E. (2009). Balancing the Earth: Native American philosophies and the environmental crisis. *Arizona Quarterly: A Journal of American Literature, Culture, and Theory*, 65(3), 139–162.
- *Indigenous Principles of Just Transition*, Indigenous Environmental Network, <https://www.ienearth.org>.

³For the record, the Cornell code of academic integrity is here.

5.1 Week by week readings

- **Week 1 (August 26) OVERVIEW.**
- **Week 2 (September 9) THE STATE OF THE PLANET**
 - UN Environment Gap Programme (2023). *Emissions Gap Report 2023: Broken Record — Temperatures hit new highs, yet world fails to cut emissions (again)*. United Nations, Nairobi.
 - Armstrong McKay, D. I., Staal, A., Abrams, J. F., Winkelmann, R., Sakschewski, B., Loriani, S., Fetzer, I., Cornell, S. E., Rockström, J., and Lenton, T. M. (2022). Exceeding 1.5°C global warming could trigger multiple climate tipping points. *Science*, 377, eabn7950.
 - Kemp, L., Xu, C., Depledge, J., Ebi, K. L., Gibbins, G., Kohler, T. A., Rockström, J., Scheffer, M., Schellnhuber, H. J., Steffen, W., and Lenton, T. M. (2022). Climate endgame: Exploring catastrophic climate change scenarios. *Proceedings of the National Academy of Science*, 119(34), e2108146119.
- **Week 3 (September 16) SOLASTALGIA**
 - Stanley, S. K. (2023). Anticipatory solastalgia in the Anthropocene: Climate change as a source of future-oriented distress about environmental change. *Journal of Environmental Psychology*, 91, 102134.
 - Ferrarello, S. (2023). Solastalgia: climatic anxiety — an emotional geography to find our way out. *The Journal of Medicine and Philosophy*, 48, 151–160. A Forum for Bioethics and Philosophy of Medicine.
 - Tom, E., Adams, M. M., and Goode, R. W. (2024). Solastalgia to soliphilia: cultural fire, climate change, and Indigenous healing. *Ecopsychology*.
- **Week 4 (September 23) TIPPING POINTS AND JUSTICE**
 - Sanson, A. V. and Burke, S. E. L. (2020). Climate change and children: An issue of intergenerational justice. In N. Balvin and D. J. Christie, editors, *Children and Peace*, Peace Psychology, chapter 21, pages 343–362. SpringerOpen, Cham, Switzerland.
 - Whyte, K. (2020). Too late for indigenous climate justice: Ecological and relational tipping points. *WIREs Climate Change*, 11, e603.
 - Milkoreit, M. (2023). Social tipping points everywhere? — Patterns and risks of overuse. *WIREs Climate Change*, 14, e813.
- **Week 5 (September 30) HOW WE GOT HERE: CAPITALISM.**
 - Park, J. T. (2015). Climate change and capitalism. *Consilience: The Journal of Sustainable Development*, 14(2), 189–206.
 - Baer, H. A. (2020). Climate change and capitalism. In S. A. Hamed Hosseini, J. Goodman, S. C. Motta, and B. K. Gills, editors, *The Routledge Handbook of Transformative Global Studies*, chapter 19, pages 259–272. Routledge, London.
 - Saldanha, A. (2020). A date with destiny: Racial capitalism and the beginnings of the Anthropocene. *EPD: Society and Space*, 38(1), 12–34.

- Sheather, J. (2021). The conflicts that killed COP26. *BMJ*, 375, n2798.
 - [OPTIONAL] Edelman, S. (2023a). *The Consciousness Revolutions: From Amoeba Awareness to Human Emancipation*. Springer, Cham, Switzerland (ch.5, *Self and society*).
- **Week 6 (October 7) PSYCHOLOGY TO THE RESCUE?**
 - Schwartz, S. E. O., Benoit, L., Clayton, S., Parnes, M. F., Swenson, L., and Lowe, S. R. (2023). Climate change anxiety and mental health: Environmental activism as buffer. *Current Psychology*, 42, 16708–16721.
 - Korteling, J. E., Paradies, G. L., and Sassen-van Meer, J. P. (2023). Cognitive bias and how to improve sustainable decision making. *Frontiers in Psychology*, 14, 1129835.
 - Nijhuis, M. (2021). *The miracle of the commons*. Aeon, 4 May 2021. Available online at <https://aeon.co/essays/the-tragedy-of-the-commons-is-a-false-and-dangerous>
 - Harvey, D. (2011). The future of the commons. *Radical History Review*, 109, 101–107.
 - [OPTIONAL] Jenkins, W., Berry, E., and Kreider, L. B. (2018). Religion and climate change. *Annual Review of Environment and Resources*, 43, 85–108.
 - **Week 7 (October 21) SOCIOLOGY TO THE RESCUE?**
 - Klinenberg, E., Araos, M., and Koslov, L. (2020). Sociology and the climate crisis. *Annual Review of Sociology*, 46, 649–669.
 - Dietz, T., Shwom, R. L., and Whitley, C. T. (2020). Climate change and society. *Annual Review of Sociology*, 46, 135–158.
 - Skotnicki, T. and Nielsen, K. (2021). Toward a theory of alienation: futurelessness in financial capitalism. *Theory and Society*, 50, 837–865.
 - **Week 8 (October 28) POLITICS TO THE RESCUE?**
 - Sampson, R. N. (1991). The politics of the environment. *Journal of Soil and Water Conservation*, 46(6), 398–400.
 - Osborne, N. and Carlson, A. (2023). Against a nation state of emergency: how climate emergency politics can undermine climate justice. *npj Climate Action*, 2, 46.
 - White, R. (2018). Ecocide and the carbon crimes of the powerful. *The University of Tasmania Law Review*, 37(2), 95–115.
 - Latulippe, N. and Klenk, N. (2020). Making room and moving over: knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision-making. *Current Opinion in Environmental Sustainability*, 42, 7–14.
 - [OPTIONAL] Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R. E., Mayall, E. E., Wray, B., Mellor, C., and van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Lancet Planet Health*, 5, e863–e873.

- **Week 9 (November 4) INDIGENOUS KNOWLEDGES.**

- Randazzo, E. and Richter, H. (2024). Political action in planetary times: Extinction activism, Anthropocene ontopolitics, indigenous complexities. *Political Geography*, 112, 103107.
- Nightingale, A. J., Eriksen, S., Taylor, M., Forsyth, T., Pelling, M., Newsham, A., Boyd, E., Brown, K., Harvey, B., Jones, L., Bezner Kerr, R., Mehta, L., Naess, L. O., Ockwell, D., Scoones, I., Tanner, T., and Whitfield, S. (2020). Beyond technical fixes: climate solutions and the great derangement. *Climate and Development*, 12(4), 343–352.
- Petzold, J., Andrews, N., Ford, J. D., Hedemann, C., and Postigo, J. C. (2020). Indigenous knowledge on climate change adaptation: a global evidence map of academic literature. *Environmental Research Letters*, 15, 113007.
- Hernandez, J. and Spencer, M. S. (2020). Weaving Indigenous science into ecological sciences: Culturally grounding our Indigenous scholarship. *Human Biology*, 92(1), 5–9.
- [OPTIONAL] Carmona, R., Reed, G., Thorsell, S., Sambo Dorough, D. S., Petrasek MacDonald, J., Bhadra Rai, T., and Sanago, G. A. (2023). Analysing engagement with Indigenous Peoples in the Intergovernmental Panel on Climate Change’s Sixth Assessment Report. *npj Climate Action*, 2, 29.

- **Week 10 (November 11) INDIGENOUS PRACTICES.**

- Larsen, S. C. and Johnson, J. T. (2016). The agency of place: toward a more-than-human geographical self. *GeoHumanities*, 2(1), 149–166.
- Menzies, A., Bowles, E., Gallant, M., Patterson, H., Kozmik, C., Chiblow, S., McGregor, D., Ford, A., and Popp, J. N. (2022). “I see my culture starting to disappear”: Anishinaabe perspectives on the socioecological impacts of climate change and future research needs. *FACETS*, 7, 509–527.
- [OPTIONAL] Chanza, N. and Musakwa, W. (2021). Indigenous practices of ecosystem management in a changing climate: Prospects for ecosystem-based adaptation. *Environmental Science and Policy*, 126, 142–151.
- [OPTIONAL] Imoro, Z. A., Imoro, A. Z., Duwiejuah, A. B., and Abukar, A. (2021). Harnessing Indigenous technologies for sustainable management of land, water, and food resources amidst climate change. *Frontiers in Sustainable Food Systems*, 5, 691603.

- **Week 11 (November 18) DEGROWTH.**

- Sahlins, M. (1968). The original affluent society. In M. Sahlins, editor, *Stone Age Economics*. Aldin, Chicago.
- Hickel, J. and Kallis, G. (2020). Is green growth possible? *New Political Economy*, 25(4), 469–486.
- Hickel, J. (2019). Degrowth: a theory of radical abundance. *real-world economics review*, 87, 54–68. Published 19 March 2019. Available online at <http://www.paecon.net/PAEReview/issue87/Hickel87.pdf>.

- **Week 12 (November 25) ECO-ANARCHISM.**

- Clark, J. (2020). What is eco-anarchism? *The Ecological Citizen*, 3(Suppl.C), 9–14.

- Toro, F. J. (2021). Stateless environmentalism: the criticism of state by eco-anarchist perspectives. *ACME: An International Journal for Critical Geographies*, 20(2), 39–53. Special issue: “Anarchist Geographies and Epistemologies of the State”.
 - Kēhaulani Kauanui, J. (2021). The politics of Indigeneity, anarchist praxis, and decolonization. *Anarchist Developments in Cultural Studies*, 1, 9–42.
- **Week 13 (December 2) RADICAL ACTION.**
 - Kurtz, R. (2020). Direct action and the climate crisis: interventions to resist and reorganize the metabolic relations of capitalism. *Radical Philosophy Review*, 23(2), 261–297.
 - Berglund, O. (2023). Disruptive protest, civil disobedience & direct action. *Politics*, pages 1–19.
 - Sovacool, B. K. and Dunlap, A. (2022). Anarchy, war, or revolt? Radical perspectives for climate protection, insurgency and civil disobedience in a low-carbon era. *Energy Research & Social Science*, 86, 102416.
 - **Week 14 (December 9) PROJECT REPORTS AND GENERAL DISCUSSION.**
 - [OPTIONAL] Edelman, S. (2023a). *The Consciousness Revolutions: From Amoeba Awareness to Human Emancipation*. Springer, Cham, Switzerland (ch.7 and Epilogue).

6 Sample project topics

6.1 Cornell scorecards

How is our university doing on the relevant fronts: curriculum, daily operations, planning, endowment, and governance? Have there been recent changes, and if yes, in which direction(s)?

6.2 City, county, state scorecards

Same as above, but other local and state entities.

6.3 Local and Indigenous voices

Who are the different community actors and groups advocating for policy change for climate crisis mitigation and adaptation in the county and the state? What local Indigenous knowledges and practices apply and who can we learn from about these matters? What have been their achievements, challenges and lessons? What unites/divides them? What holds back greater mobilization locally? What could help existing change agents?

6.4 Direct action

Who are the key players whose decisions affect how Cornell (the city, the county, the state, the country) is doing on climate? What can *we* do to help those people make the right decisions?

— — —

Appendix A Entry / exit survey

Use this page to write in the answers, or copy the prompts into a new file.

A.1 Free-form text, I

In a few sentences, state:

if first week Your reasons for taking this course and expectations from it.

if last week Did the course meet your expectations? If not, how might the readings and the classroom dynamics be modified to make it better?

A.2 Questions

For the following questions, use a scale of 1 [not at all] to 10 [very]:

1. How anxious are you about climate change?
2. How urgent is the global situation with respect to climate?
3. How urgent is your personal situation with respect to climate?
4. How informed do you feel about the courses of action that are open to you personally?
5. How likely are you to act?
6. How likely is the crisis to be resolved without major changes to the dominant socioeconomic system?
7. How likely is it that the crisis will lead to major changes to the system?

A.3 Free-form text, II

Is there anything you would like to add?

Readings

- Armstrong McKay, D. I., Staal, A., Abrams, J. F., Winkelmann, R., Sakschewski, B., Loriani, S., Fetzer, I., Cornell, S. E., Rockström, J., and Lenton, T. M. (2022). Exceeding 1.5°C global warming could trigger multiple climate tipping points. *Science*, 377, eabn7950.
- Baer, H. A. (2020). Climate change and capitalism. In S. A. Hamed Hosseini, J. Goodman, S. C. Motta, and B. K. Gills, editors, *The Routledge Handbook of Transformative Global Studies*, chapter 19, pages 259–272. Routledge, London.
- Berglund, O. (2023). Disruptive protest, civil disobedience & direct action. *Politics*, pages 1–19.
- Carmona, R., Reed, G., Thorsell, S., Sambo Dorough, D. S., Petrusek MacDonald, J., Bhadra Rai, T., and Sanago, G. A. (2023). Analysing engagement with Indigenous Peoples in the Intergovernmental Panel on Climate Change’s Sixth Assessment Report. *npj Climate Action*, 2, 29.
- Chanza, N. and Musakwa, W. (2021). Indigenous practices of ecosystem management in a changing climate: Prospects for ecosystem-based adaptation. *Environmental Science and Policy*, 126, 142–151.
- Cheyfitz, E. (2009). Balancing the Earth: Native American philosophies and the environmental crisis. *Arizona Quarterly: A Journal of American Literature, Culture, and Theory*, 65(3), 139–162.
- Clark, J. (2020). What is eco-anarchism? *The Ecological Citizen*, 3(Suppl.C), 9–14.
- Dietz, T., Shwom, R. L., and Whitley, C. T. (2020). Climate change and society. *Annual Review of Sociology*, 46, 135–158.
- Doctorow, C. (2023). *The Lost Cause*. Tor Books, New York, NY.
- Edelman, S. (2020). *Life, Death, and Other Inconvenient Truths*. MIT Press, Cambridge, MA.
- Edelman, S. (2023a). *The Consciousness Revolutions: From Amoeba Awareness to Human Emancipation*. Springer, Cham, Switzerland.
- Edelman, S. (2023b). Real systemic solutions to humanity’s problems require a radical reshaping of the global political system. *Behavioral and Brain Sciences*, 46, e155. A commentary on *The i-frame and the s-frame: How focusing on individual-level solutions has led behavioral public policy astray* by N. Chater and G. Loewenstein.
- Ferrarello, S. (2023). Solastalgia: climatic anxiety — an emotional geography to find our way out. *The Journal of Medicine and Philosophy*, 48, 151–160. A Forum for Bioethics and Philosophy of Medicine.
- Harvey, D. (2011). The future of the commons. *Radical History Review*, 109, 101–107.
- Hernandez, J. and Spencer, M. S. (2020). Weaving Indigenous science into ecological sciences: Culturally grounding our Indigenous scholarship. *Human Biology*, 92(1), 5–9.
- Hickel, J. (2019). Degrowth: a theory of radical abundance. *real-world economics review*, 87, 54–68. Published 19 March 2019. Available online at <http://www.paecon.net/PAEReview/issue87/Hickel187.pdf>.
- Hickel, J. and Kallis, G. (2020). Is green growth possible? *New Political Economy*, 25(4), 469–486.

- Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R. E., Mayall, E. E., Wray, B., Mellor, C., and van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Lancet Planet Health*, 5, e863–e873.
- Imoro, Z. A., Imoro, A. Z., Duwiejuah, A. B., and Abukar, A. (2021). Harnessing Indigenous technologies for sustainable management of land, water, and food resources amidst climate change. *Frontiers in Sustainable Food Systems*, 5, 691603.
- Jenkins, W., Berry, E., and Kreider, L. B. (2018). Religion and climate change. *Annual Review of Environment and Resources*, 43, 85–108.
- Jimenez, J. and Kabachnik, P. (2023). Indigenizing environmental sustainability curriculum and pedagogy: confronting our global ecological crisis via Indigenous sustainabilities. *Teaching in Higher Education*, 28(5), 1095–1107.
- Kēhaulani Kauanui, J. (2021). The politics of Indigeneity, anarchist praxis, and decolonization. *Anarchist Developments in Cultural Studies*, 1, 9–42.
- Kemp, L., Xu, C., Depledge, J., Ebi, K. L., Gibbins, G., Kohler, T. A., Rockström, J., Scheffer, M., Schellnhuber, H. J., Steffen, W., and Lenton, T. M. (2022). Climate endgame: Exploring catastrophic climate change scenarios. *Proceedings of the National Academy of Science*, 119(34), e2108146119.
- Klinenberg, E., Araos, M., and Koslov, L. (2020). Sociology and the climate crisis. *Annual Review of Sociology*, 46, 649–669.
- Korteling, J. E., Paradies, G. L., and Sassen-van Meer, J. P. (2023). Cognitive bias and how to improve sustainable decision making. *Frontiers in Psychology*, 14, 1129835.
- Kretz, L. (2014). Ecological identity in education: Subverting the neoliberal self. *Leadership and Research in Education*, 1, 4–21.
- Kurtz, R. (2020). Direct action and the climate crisis: interventions to resist and reorganize the metabolic relations of capitalism. *Radical Philosophy Review*, 23(2), 261–297.
- Larsen, S. C. and Johnson, J. T. (2016). The agency of place: toward a more-than-human geographical self. *GeoHumanities*, 2(1), 149–166.
- Latulippe, N. and Klenk, N. (2020). Making room and moving over: knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision-making. *Current Opinion in Environmental Sustainability*, 42, 7–14.
- Martínez-Alier, J. (2023). *Land, Water, Air and Freedom: The Making of World Movements for Environmental Justice*. Elgar, Cheltenham, UK. Open access (freely available on the publisher’s website).
- McCowan, T. (2022). Teaching climate change in the university. Technical report, UCL.
- McCowan, T. (2023). The climate crisis as a driver for pedagogical renewal in higher education. *Teaching in Higher Education*, 28(5), 933–952.
- Menzies, A., Bowles, E., Gallant, M., Patterson, H., Kozmik, C., Chiblow, S., McGregor, D., Ford, A., and Popp, J. N. (2022). “I see my culture starting to disappear”: Anishinaabe perspectives on the socioecological impacts of climate change and future research needs. *FACETS*, 7, 509–527.

- Milkoreit, M. (2023). Social tipping points everywhere? — Patterns and risks of overuse. *WIREs Climate Change*, 14, e813.
- Nightingale, A. J., Eriksen, S., Taylor, M., Forsyth, T., Pelling, M., Newsham, A., Boyd, E., Brown, K., Harvey, B., Jones, L., Bezner Kerr, R., Mehta, L., Naess, L. O., Ockwell, D., Scoones, I., Tanner, T., and Whitfield, S. (2020). Beyond technical fixes: climate solutions and the great derangement. *Climate and Development*, 12(4), 343–352.
- Osborne, N. and Carlson, A. (2023). Against a nation state of emergency: how climate emergency politics can undermine climate justice. *npj Climate Action*, 2, 46.
- Park, J. T. (2015). Climate change and capitalism. *Consilience: The Journal of Sustainable Development*, 14(2), 189–206.
- Petzold, J., Andrews, N., Ford, J. D., Hedemann, C., and Postigo, J. C. (2020). Indigenous knowledge on climate change adaptation: a global evidence map of academic literature. *Environmental Research Letters*, 15, 113007.
- Randazzo, E. and Richter, H. (2024). Political action in planetary times: Extinction activism, Anthropocene ontopolitics, indigenous complexities. *Political Geography*, 112, 103107.
- Sahlins, M. (1968). The original affluent society. In M. Sahlins, editor, *Stone Age Economics*. Aldin, Chicago.
- Saldanha, A. (2020). A date with destiny: Racial capitalism and the beginnings of the Anthropocene. *EPD: Society and Space*, 38(1), 12–34.
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