

## **Editorial**

## Climate Action: Transforming Infrastructure, Cultivating Attentiveness, Practicing Solidarity

Dagmar Lorenz-Meyer, Josephine Taylor

Against the backdrop of ongoing histories of capitalist resource extraction and their gendered, racialised and environmental violences, social scientists have identified an "abysmal distance" (Latour 2015) between the severity and scale of climate change and the inability or unwillingness of societal actors to take systemic action (Urry 2011; Charkrabarty 2012; Wilson 2018). This special issue, "Climate Action: Transforming Infrastructure, Cultivating Attentiveness, Practicing Solidarity", seeks to engender modes of analysis and resistance to the "extractive view" (Gómez-Barris 2017). Building on and expanding thematic issues in environmental sociology and anthropology (Smith and Jehlička 2012; Fraňková, Dostalík, and Škapa 2015), the collection shows how social scientific research can be productively inflected by approaches from the energy and environmental humanities, feminist theories of body and affect, new materialism and animal studies.

The articles are united in working to realise energy transition and climate justice, understood as intersectional processes that encompass the transformation of energy infrastructures including animal-industrial plantations and the inequities fuelled by these extractive regimes. The contributors address climate action across three crosscutting and intersecting analytical foci that we term "transforming infrastructure, cultivating attentiveness, and practicing solidarity" and that offer paths to transformation, resistance, and transversal alliances in the climate emergency. We briefly address these in turn.

First, *Transforming Infrastructure*. Infrastructures broadly are the grounds for provisioning that subtend some lives and livelihoods but often exclude and thwart others. While it appears that the natural environment is the infrastructure of infrastructure, social scientists point to their constitutive entanglements where the fossil fuel infrastructures of transportation and consumption "produce the anthropocentric environment on which infrastructures are built" (Hetherington 2019: 6). As a circuit and embedding environment this infrastructure comprises the oil and gas companies that have made 2.8 billion USD per day in net profits over the past 50 years, as the recent analysis of World Bank data by economist Aviel Verbruggen shows, "stripping money away from the alternatives" (Verbruggen cited in The Guardian 2022). In this volume of "Climate Action", the authors

examine and refigure a range of incumbent and alternative energy infrastructures, including coal mines, roads and automobility, plantations of industrial crop and animal farming, as well as climate camps, municipal procedures of consultation, and communal solar energy. More specifically, they reveal the modalities of infrastructural transformation of disruption. failure, refusal, and re-articulation that help dismantle extractive infrastructures and build alternatives. Arnošt Novák (this volume) examines how climate activists collectively used their bodies to block access to a Czech coal mine. Importantly, his analysis shows how such medialised blockages do not merely contest fossil fuel infrastructure by temporally disrupting or disabling energetic and economic flows but generate new affects and forms of relating that subtend lives otherwise. Focusing on disrupting or "hacking" the technocratic procedures of deciding about constructing a large solar farm in Canada, Wilson (this volume) examines the failures or "glitches" (Berlant 2016) of infrastructural decision making. Wilson's analysis reveals the tensions but also intersections of Indigenous land claims, climate targets, biodiversity, and urban recreation that need to be addressed together in the siting and design of solar power plants. Learning from failure re-routes existing procedures towards a slowed down and "staggered" form of decision-making and financing for decolonial energy futures.

Bob Kuřík (this volume) reconsiders ostensible failures in the violent plantation practices of simplifying monocultured plants and animals by focusing on the *refusal* of some species to become "plantationised", evident in their vulnerability to "pests" and failed cooperation in the work processes of assetification, which opens to practices of multispecies resistance to plantation regimes. Conceiving energy infrastructure as a heterogeneous assemblage where practices of articulation contain indeterminacy and hence possibility for differential articulation, Dagmar Lorenz-Meyer (this volume) examines the potentials of infrastructural *re-articulation*. Like Josephine Taylor (this volume), she explores what is typically left out or "disarticulated" from infrastructural arrangements but remains part of these phenomena: accidental roadkill considered collateral damage of road infrastructure that can incite resistance (Taylor), or overseas labour and panel decomposition (Lorenz-Meyer) that can be seen as productive "limits" and become pointers for possible infrastructural transformation. In different ways the modalities of disruption, refusal and re-articulation open up alternatives that emerge within and through infrastructural disablement, disarticulation and failure.

Second, *Cultivating Attentiveness*. Lauren Berlant has suggested that transforming extractive infrastructure requires dishabituating a human "sensorium that is so quick to adapt to damaged life" (2016: 399). Responding to the intersecting climate crisis and recognising transformative potentials requires atonement to multiple violences of extractive infrastructure as much as honing what Kuřík, after Anna Tsing (2015), calls "the arts of noticing" disruption and relation: the small "cracks" in infrastructural articulation, unnoticed interstices, translocal connections, peripheral spaces, and the traces of more-than-human resistance – all the while cautioning against romanticising or reifying multispecies resistance. Van Dooren, Kirksey and Münster propose that this artful practice involves learning to "[t]ransform noticing into attentiveness – into the cultivation of skills for both paying attention to others and meaningfully responding" (2016: 6).

Each of the authors suggests new ways of cultivating attentiveness that challenge innocence and unconcern. Lorenz-Meyer uses the term "technoecological sense-ability" to

describe people's situated capacity to attend to what current infrastructural arrangements pre-empt from materialising, as well as their ability to think across the divides of economy, chemistry and corporeality and unfurl infrastructure into a wider set of relations and decompositions. By disrupting the idea(l)s of individual and technological sovereignty and ecology as harmonious balance, technoecological sense-abilities can become leverages for conjuring alternative arrangements. Attending to the ongoing colonial encounter, Wilson offers the recursive practice of "deep energy literacy" that holds together different knowledge systems and ontologies. As a sensitising device it puts up for address the questions "Which histories of land use determine present and future rights to access [to land slated for solar energy generation]? Whose ownership, present and historical, determines rights to future access?" Like Gómez-Barris's (2017) exploration of the social ecologies of extractive zones, Wilson fosters a feminist and decolonial energy praxis that attends to both the present violence and histories of displacement of Indigenous nations.

Contributors further reveal the transformative role of corporeality and affect in cultivating attentiveness for energy transition. Examining how activist bodies become excited, Novák proposes the concept of affinity to tune into the bodily sensing of connection and the affects of exhilaration, anger, joy and love that energise activist practice and begin to bring forth another world within this one. Staying with negativity, Taylor illuminates the contradictory processes of rejection and address of fossil fuel's unacknowledged casualties by drawing connections between the affects of grief, disgust, and pain in human responses to roadkill. In Taylor's hands, these affective responses to animal death open the possibility for a non-anthropocentric ethics of mourning and creaturely fellowship, intervening in prevalent unconcern and linking to the broader movement of climate justice. Through garnering attentive practices, the articles articulate modes of resistance and speculative horizons. By speculative horizons we mean that they can forge a sense of futurity in the reader, accompanied by a sense of hope. Literary theorist Eve Sedgwick describes hope as a fracturing experience:

Hope, often a fracturing, even traumatic thing to experience, is among the energies by which the reparatively positioned reader tries to organise the fragments and part-objects she encounters or creates. Because the reader has room to realise that the future may be different from the present, it is also possible for her to entertain such profoundly painful, profoundly relieving, ethically crucial possibilities as that the past, in turn, could have happened different from the way it actually did (2003: 146).

Cultivating attentiveness, then, is a way of reconfiguring hopeful horizons amidst scenes of environmental ruin and climate emergency that do not deny or diminish irreparable losses. We may experience hope as both fracturing, but also an experience in which we discover a sense of care.

Third, *Practicing Solidarity*. Challenging inaction and dissociation, the contributors seek to activate and amplify practices of solidarity across difference that engender ways of living beyond violent modes of extraction while also attending to some of the tensions, precarity, and even revulsion and violence within solidarity. Indigenous scholars have cautioned against moves to settler innocence and remind us that solidarity is both a necessary and "an uneasy, reserved, and unsettled matter that neither reconciles present grievances nor forecloses future

conflict" (Tuck and Wang 2012: 3). With respect to intersectional approaches to climate action, the authors suggest different sites and configurations of solidarity. These include new ethico-political communities and unlikely alliances of resistance at different scales (cf. Pixová and Nebeská 2022). Wilson documents the emergence of a new heterogeneous knowledge collective of municipal representatives, energy professionals, Indigenous councils, and other change agents at the municipal and district levels that could bring forth protocols of decision making about solar installations where decisions are recursively made in the presence of a multitude of actors and concerns. Novák considers new collectivities of the climate movement that come together around urban events as well as longer encampments and occupations of distributed fossil fuel infrastructure. His analysis reveals how diverse "affinity groups" not only learn to synchronise their movements in coordinated acts of resistance but in prefigurative politics embrace vulnerability, experiment with sustainable living, and care for one another.

Kuřík's analysis extends such emerging sites of solidarity and resistance to plantations of industrial farming in Europe and South America to include the unruly agencies of disobedient cows and mutated pests. He considers the convergences of human and morethan-human alliances based on shared vulnerability, as well as the experience of encountering difference. This work has resonance with the research of feminist science scholar and environmental scientist Cleo Wölfle Hazard (2022) on queer trans river ecologies that outlines a politics of solidarity of trans scientists, indigenous scientists and collaborators, unruly beavers and river underflows grounded in situated histories. Drawing on the work of José Muñoz, these actors are related in "the way in which they suffer and strive together, but also the commonality of their ability to flourish under duress and pressure...they smolder with life and persistence' (Muñoz 2013, cited in Wölfle Hazard 2022: 3; Gumbs 2020). Practices of solidarity here are developed from acts of vulnerable co-existence and collaboration between and among co-constitutive "technoecological bodies" (Lorenz-Meyer).

By distilling modalities of infrastructural transformation, cultivating modes of attentiveness and tracing non-innocent forms of solidarity and care, the articles in this special issue contribute to defying the extractive view and suggest that alternatives to endless capital accumulation are already emerging in forms of alternative infrastructure, vulnerable collaboration, and creaturely fellowship.

With the writing impeded through the COVID pandemic, not all articles made it into the final version. We would like to thank the authors and the contributors to the conference "Climate Justice, Technoecologies and Alternative Energy Futures" out of which the contributions to this issue emerge for ongoing discussion, especially Meike Spitzner and Michaela Pixová. We also thank Barbora Hubatková and Pavel Pospěch for their editorial support. Dagmar would like to acknowledge the Czech Science Foundation (GA17-14893S) for enabling this collaborative work, even if the Agency was unable to count its outcome. Josephine would like to thank Danielle Sands, her PhD supervisor. Last but not least, we thank each other for bringing this work to completion.

## References

- Berlant, Lauren. 2016. "The Commons: Infrastructures for Troubling Times." *Environment and Planning D: Society and Space* 34(4): 393–419.
- Chakrabarty, Dipesh. 2012. "Postcolonial Studies and the Challenge of Climate Change." *New Literary History* 43: 1–18.
- Gómez-Barris, Macarena. 2017. *The Extractive Zone: Social Ecologies and Decolonial Perspectives*. Durham: Duke University Press.
- Gumbs, Alexis P. 2020. Undrowned: Black Feminist Lessons from Marine Mammals. Chico: AK Press.
- Fraňková, Eva, Jan Dostalík, and Radoslav Škapa. 2015. "Behavioural Views in Environmentalism." Sociální studia /Social Studies 12(3): 5–8.
- Hetherington, Kregg. Ed. 2019. *Infrastructure, Environment, and Life in the Anthropocene*. Durham: Duke University Press.
- Latour, Bruno. 2015. "Waiting for Gaia: Composing the Common World through Arts and Politics." Pp. 21–33 in *What is Cosmopolitical Design?*, edited by A. Yaneva and A. Zaera-Polo. Ashgate: Farnham.
- Pixová, Michaela and Véronique A. Nebeská. 2022. Budoucnost je feministická: Gender a intersectionalita v českém klimatickém hnutí [The Future is Feminist: Gender and Intersectionality in the Czech Climate Movement]. Prague: Heinrich Böll Stiftung.
- Sedgwick, Eve Kosofsky. 2003. *Touching Feeling: Affect, Pedagogy, Performativity*. Durham: Duke University.
- Smith, Michael and Petr Jehlička. 2012. "Environmental Values in Central and Eastern Europe: Perspectives from East and West." *Sociologický časopis/Czech Sociological Review* 48(3): 409–420.
- The Guardian. 2022. "Revealed: Oil Sector's 'Staggering' \$3bn-a-Day Profits for Last 50 Years." 21. 7. 2022.
- Tsing, Anna L. 2015. The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins. Durham: Duke University.
- Tuck, Eve and K. Wayne Yang. 2012. "Decolonialization is not a Metaphor." *Decolonialization: Indigeneity, Education & Society* 1(1): 1–40.
- Urry, John. 2011. Climate Change & Society. Cambridge: Polity Press.
- Van Dooren, Thom, Eben Kirksey, and Ursula Münster. 2016. "Multispecies Studies: Cultivating Arts of Attentiveness." *Environmental Humanities* 8(1): 1–23.
- Wilson, Sheena. 2018. "Energy Imaginaries: Feminist and Decolonial Futures." Pp. 377–411 in *Materialism and the Critique of Energy*, edited by Brent R. Bellamy and Jeff Diamanti. Chicago: MCM.
- Wölfle Hazard, Cleo. 2022. *Underflows: Queer Transecologies and River Justice*. Seattle: University of Washington Press.