7

An Arctic Bounded by Whiteness

*Ethics of Amplification**

TANGUY SANDRÉ AND JEANNE-MARIE GHERARDI

7.1 Introduction: Converging Gazes

In this chapter, we mobilize our transdisciplinary research within Arctic communities to critique the concept of planetary boundaries (PB) and associated 'anthropocenic narratives'. We were invited to cross our distinct, but interdisciplinary, gazes to scrutinize the ethical and epistemological tensions that loomed from the encounter of anthropocenic narratives and the ethnographic practices we deploy. As a PhD Research Fellow in social sciences, with a background in climate change adaptation, Tanguy investigated the expression of the plurality of knowledges, experiences, and values within the climate crisis' narrative, rooting his research in place-based stories. The critical considerations for the science being done and the narrative being supported emerged early and widely in this research pathway. For the second co-author, Jeanne-Marie, it was very little discussed alongside her early training as a geologist, whether it was a blind spot or by virtue of science assumed as unquestionable. For her, it is only recently, in the context of climate emergency and her involvement in interdisciplinary climate research that the question of ethics and justice started being central. Throughout our participation, as project leader and PhD fellow, within the SeMPER-Arctic project (Sense Making, Place attachment and Extended networks as sources of Resilience in the Arctic), we paid attention to place-based stories of changes and upheavals in the Arctic. By transmitting concepts from one discipline to another and bringing in our perspectives, we put ourselves in position to develop a critical, interdisciplinary stance in response to the univocal narrative of the climate crisis which critics argue is often deaf to non-Eurocentric voices. Our exchange is fed by our repetitive fieldwork (seven stays for three to nine weeks between 2021 and

* The authors wish to acknowledge the participation and invaluable insights and meaning offered by the inhabitants of Ittoqqortoormiit. The authors were funded through Belmont Forum project SeMPER-Arctic (French National Agency Grant).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

2023) in Ittoqqortoormiit (Kalaallit Nunaat/Greenland), where we have identified salient expressions of lived experience with community members.

The reflexive conversation we engage in this chapter aims to highlight power imbalances and the position of researchers in order to discuss the possibilities of an ethic of amplification that addresses equity in the shaping of narratives within the 'anthropocenic moment'. Our conversation begins with a discussion of the concept of whiteness in the Arctic that we use both as a physical parameter intrinsically linked to Arctic amplification and global climate dynamics for climate scientists and metaphorically as a description of the climate science carried out there amplifying Anthropocene discourse. Then, we suggest that the plurality of voices, perspectives, or concerns needed to address climate change in the Arctic requires not having only the singular story amplified by climate science, that is, the Anthropocene, because that would unethically keep amplifying whiteness at the expense of continued 'othering' and disempowering of those in Ittoqqortoormiit and in the rest of the Arctic region. Finally, acknowledging the contestation of 'anthropocenic narratives' as expressed among non-Western communities, we consider tensions with the concept of PB, and suggest using it only cautiously, for instance with regard to historical dominations including over other-than-human beings.

7.2 The Whiteness of the Arctic: Amplification and Dampening

Amplification and dampening in the Arctic are fertile and cross-cutting images to frame the conversation. These are both connected to whiteness, whose polysemy is used here either to describe a physical object connected to the larger climate system or to unfold the system that reproduces the dominant way of knowing. Therefore, the polysemic conversation here is guided by climate change–induced shifts in albedo and other positive feedback to ultimately achieve climate-coloniality.

7.2.1 Whiteness as a Key Physical Parameter of the Arctic Climate System

The Arctic is often studied by climate scientists for its key role within the larger climate system. This is notably explained by the phenomenon of Polar or Arctic Amplification, by which change in the net radiation balance tends to produce larger changes in temperature in polar regions than, for instance, in mid-latitudes. This process of amplification is observable in the past climate and glacial period, and is expected to become stronger in coming decades (Serreze & Barry 2011; Previdi et al. 2021). The phenomenon of amplification is strongly associated with positive feedback such as albedo effects, which refer to the fraction of incoming

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

solar energy or light that a surface reflects back to space (Fox-Kemper et al. 2021; Intergovernmental Panel on Climate Change 2022). This reflected energy is a fundamental component of the earth's energy balance. The albedo has values between 0 for a black surface that absorbs all energy and reflects none, and 1 for a white surface that behaves like a mirror and reflects all light without absorbing any. The albedo of snow-covered sea ice or of a pristine white is therefore higher than that of the darker open sea. The whiteness of the Arctic, the snow coverage and sea ice extent, plays a major role into the planetary albedo and is therefore of the utmost interest for climate scientists to observe climate change. For instance, the progressive decline of sea ice extent and ice thinning is predicted to reach a seasonal ice-free Arctic Ocean by 2050. The region amplification also produces impacts beyond the Arctic, such as in storm tracks, the jet stream, and planetary waves and their associated energy propagation, as well as accentuated impacts of Pacific variability (Cohen et al. 2014; Overland et al. 2015; Preece et al. 2023). It must be noted here that the physical whiteness of the Arctic is itself a narrow representation of the regions which are predominantly and for most of the year uncovered by white surfaces.

7.2.2 Whiteness of the Gaze

> Naming whiteness is necessary; it is the 'invisibility' of white people, who are presented just as 'people', the default norm from which everyone else deviates, that is part of its normative power making. Yet the more you state and claim your 'whiteness', without doing any further work to unpack what that means, the more you become fixed to that articulation of self, the more you become wedded to whiteness .... We have to set whiteness up, to name it, to frame it, in order to dissemble it.
>
> (Dabiri 2021: 9–10)

Independent of the processes associated with the physical polar whiteness, social notions of whiteness are pervasive in the making of the science itself. Firstly, Arctic climate science remains mostly produced in mid-latitudes, and the field is largely characterized by 'fly in, fly out' practices, devoid of any form of local engagement (Skjervedal 2021). But it also submerges the framing of the climate change narrative on Arctic regions. Multifaceted changes and upheavals are mainly analysed in a global and science-based approach of climate and environmental sciences that tends to make invisible local contexts and specificities (Bremer et al. 2019; Krauß 2020). This is especially significant in the Arctic (Bravo 2009; Holm 2010; Baztan et al. 2017; Stephen 2018), where local and Indigenous communities are also often portrayed as passive 'victim-heroes' (Roosvall & Tegelberg 2013).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

Even when these approaches acknowledge injustice and recognize agency, they remain views from the outside that preserve a certain kind of narrative. In other words, the conduct of the research itself imposes a restriction on the kind of knowledge involved – for instance, restrained to the realm of the quantifiable (for example, albedo) – in making and sustaining a narrow understanding of the Anthropocene.

With the concept of whiteness at the centre of their analysis, Baldwin and Erickson (2020) underline the inherent coloniality of the Anthropocene. They argue that the whiteness of the Anthropocene 'determines not only who can be heard in that space but also the very terms on which the Anthropocene debate unfolds as an object of public concern' (Baldwin & Erikson 2020: 6). In the Arctic, the regional – but globalizing – science-based narrative tends to annihilate expressions of place-attachment, cultural values, or local knowledge, and hence neglects local agencies through epistemic injustice and violence while strengthening pre-existing power imbalances. By contrast, community responses to a changing climate and environment 'is deeply implicated in their sense of who they were and are, also in relation to a larger world' (Hastrup 2018: 1) and the knowledge they hold (Krupnik & Jolly 2002). For instance, in Ittoqqortoormiit, sea ice changes can only be understood in nonlinear manifestations whose narrations articulate epistemic humility, place-attachment, belonging, and relation with more-than-human beings. Furthermore, the presence or the absence of sea ice shapes seasonality, whose occurrence directly connects with the ability to move and travel, hunting practices and expressions of freedom (Sandré et al. 2024).

How do we navigate with this critical view when we apply it to ourselves? We need to acknowledge that we embody the white gaze, which is deployed through whiteness, and that our position is unsatisfactory to address the aforementioned critiques. The SeMPER-Arctic project, for instance, aims at decolonizing concepts such as resilience but was itself developed with limited community engagement. Once the project was funded, we, as critical ethnographers, were committed to 'explicitly consider how (our) own acts of studying and representing people and situations are acts of domination' (Noblit et al. 2004: 3). This contradiction pushes us to step back and propose an ethic of amplification, where we aim to decentre our practices and to pluralize the telling of research stories.

7.3 Ethics of Amplification: How to Perform Plural Voices within Science?

We argue that the dominance of white- and science-informed shaping of the climate narrative demands an enhanced practice of softness, care, and listening. While different narratives are at play, with some being historically dominant and

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

hegemonic, we potentially see a space within science to unmute local discourses which so far have systematically been placed at the margins. The uniformity of Anthropocenic narratives, such as the PB framework, intrinsically denies plurality in terms of ways of knowing, living, and responding to change – changes in which climate is not always the dominant framing. The volition to reach objective description and prescription opens an abyss of possibility when it comes to the processes of domination and unfairness to be corrected. Conversely, to the hard ball of natural sciences, following Ingold's (2018: 101) metaphor, we propose a softer science, a 'squishy ball, (that) by contrast, bends and deforms when it encounters other things, taking into itself some of their characteristics while they, in turn, bend to its pressure in accordance with their own inclinations and dispositions'. The metaphor is translated within our practices through an intention to care for place-based communities' narratives that potentially address processes of empowerment and fairness, while promoting plurality and alterity as crucial ethical lenses for engagement within transdisciplinary environmental research.

7.3.1 Amplifying Voices: Research as a Relation to Support the Expression of Plurality

> Science is a powerful tool for good as well as for evil, for emancipation as well as for exploitation. How scientists use their time and talent, their training at public expense, their public research funds, and the public trust are not matters to be brushed aside lightly.
>
> (Bleier 1986 cited in Denzin & Lincoln 2018: 1558)

In order to address, but not easily resolve, the criticisms outlined earlier, a new radical way of engaging with research is required, especially when working with groups represented as if on the margins, from yonder, that is, from the non-Western world. We suggest that by employing a critical ethnography framework, we are in a position to endorse 'an ethical responsibility to address processes of unfairness or injustice' (Madison 2020: 30). This view aims to take care of the sufferings of living beings and commits us to supporting changes towards an improved situation or to minimize sufferings. The critical approach to climate scholarship is all the more relevant as it allows us to emphasize how vulnerability to climate change in the Arctic is constructed through discourses that ignore the effects of colonialism and its ongoing impacts. Its formulation itself extends colonial forms of knowledge and practice (Cameron 2012). For instance, the PB framework relies on measurable and quantitative indicators (e.g., atmospheric CO_2 concentration levels or rates of biodiversity loss) and proxies (e.g., satellite-derived vegetation indices such as NDVI or nitrogen fertilizer application rates). Such global and unanchored metrics are constitutive of a particular, that is, Western, *episteme,* which, intentionally or not, excludes unquantifiable criteria salient to groups operating within different

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

epistemic frameworks (e.g., spiritual, cultural, or relational values to ecosystems that resist quantification).

The tools used to measure and objectify PB research are abstractions, and these metrics are often very alien to the human population in general (Karlsdóttir et al. 2023). As critical ethnographers, we subvert concepts such as neutrality and taken-for-granted assumptions. This is not a pleasant journey, a fortiori, but not only for researchers like us from the settler's world, knowing that 'we have all internalised dominant ideas about what constitutes "good" research and "acceptable" research practice' (Brown & Strega 2005: 2). A common postulate among research methodologies is that the researcher is an outsider 'able to observe without being implicated in the scene' (Smith 2021: 157). Neutrality, objectivity, and distance are valued as part of the 'good science' framework. Nevertheless, being an outsider experiencing the inside clearly means being part of the landscape, entangled in multiple relationships and taking part in 'the care enveloping every social interaction' (field notes, 2021, p. 2). 'In Indigenous frameworks, relationships matter' (Smith 2021: 137). To deploy an ethical practice oriented towards plurality, it requires us to direct our intention around showing respect to the community we are working with and to walk softly: '(Y)ou need to prove that you can actually function as a positive member of that community; there's no way to do that without becoming a part of that community. That takes time' (NCAI & MSU 2012: 18).

7.3.2 Ethics towards Plurality: Why Does It Matter?

What makes plurality an ethically important consideration? We distance our views from those that support a plurality of views (on climate change, for example) only when they seem appropriate for dominant policy decisions but still fail to recognize local contexts. Our aims are not an instrumental plurality directed towards mastering, but to address a process of fairness. Within environmental justice and transdisciplinary research, narrative-centred approaches have shown their value to support the capacity of marginalized communities and groups to speak for themselves (Ottinger 2017) and to make sense of changes in the light of their own knowledge, beliefs, and experiences (Vanderlinden et al. 2020). Sultana (2022) argues for the crucial place of lived experiences to counterbalance hegemonic framings and structural forces that perform climate coloniality. A narrative-centred methodology allows for reframing categories and for recognizing that the science-based or policy-oriented way of categorizing the world is not necessarily salient and often insufficient, especially but not only in postcolonial contexts. In that way, narratives elicit the plurality of worlds and alternative worldviews existing outside and alongside the Western world.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

As Jonsson (2016: 1) argues, 'It is only when the Indigenous attains the place of the subject telling the story that we can seriously claim to have a postcolonial narrative of the Arctic.' In Ittoqqortoormiit, alongside more formal interviews, the gesture of decentring our gaze, adopting a relational approach, pushed us to consider stories that were not initially in the scope of our research. While investigating the impacts of climate change through narratives of lived experience, we opened up space for other salient stories to emerge. One of those was associated with the central importance of *mattak* (narwhal skin) and threats to the future of narwhals hunting. That led us to the co-production of a short film in the native language and with community members. With this short film, we also tried to correct the inherent lack of engagement in the design and conduct of our research project. Feedback and evaluations by community members following the screening and the diffusion within the community – for example, repeated comments such as 'we've been telling that for many years' and 'you/we need to spread it out to the world' – suggest that an important step towards inclusive and fair research practices has been reached (Karlsdóttir et al. 2023). We believe that place-based stories that capture lived experiences of the acute environmental crisis have to be heard and contribute to pluralize Anthropocene discourse.

7.4 Discussion: Embodying an Ethic in a More-Than-Human Earth

The Anthropocene and PB are both familiar concepts for environmental scholars. In contrast, we open up discussions towards what they depict and how those depictions act discursively on the world. The ethical tensions we put into dialogue were towards the idea of quantifying to describe or to master, and the active ignorance regarding the non-quantifiable. On one hand, we would rapidly agree (and hence not further develop here) that Anthropocenic concepts are valuable to produce a certain panorama of the environmental crisis. PB, for instance, provide a glimpse on nine quantifiable parameters and their evolution over time (Richardson et al. 2023) – six of them have surpassed the safe operating system. Therefore, the latter have the capacity to be visually transposed which might help to foster awareness and provoke transformative actions. On the other hand, we further debate the limitations of such concepts which are not inherently neutral, while largely pretending to be so, and may tend to reproduce multifaceted domination and violence, including on other-than-human beings (Gupta et al. 2023; Rockström et al. 2023).

7.4.1 Unbounding the Anthropocene Discourses

The Anthropocene can be captured as an expression of a dualist framing in the form of a gendered and racialized Man pursuing the liberation from a passive and

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

changeless Nature (Grove & Chandler 2017: 79). Since its introduction to depict or label a new geological epoch (Crutzen & Stoermer 2000; Crutzen 2006), the concept of the Anthropocene has been extended beyond geology and gained legitimacy in multiple fields of academia as well as in the public arena. Beyond the debate around the date for the Anthropocene (see for instance critical reflections from Lewis & Maslin 2015; Davis & Todd 2017), the diffusion of the concept has been accompanied with tense critiques that both cover a problem-framing – for instance tending to homogenize humanity (see Baldwin & Erickson 2020; Luke 2020) – and its embeddedness in the ideology of control and mastering. The Anthropocene was also extensively criticized as hiding root causes of global change found both in imperialism and in racial capitalism (Sealey-Huggins 2018). Alternative terms were suggested to re-root the climate and ecological crisis in the historical development of capitalism (Capitalocene) or enslavement (Plantationocene) (see for instance Haraway 2015; Bonneuil & Fressoz 2016). Whatever term one uses, the Anthropocene and more widely the anthropocenic framing are to be understood both as a moment that directly threatens (certain) ways of being in the world and as a global narrative that pursues a dynamic of rendering margins invisible. In other words, the climate and ecological crisis, in its intertwinement with multidimensional upheavals, sheds new lights on the unsustainability of the hegemonic way of experiencing the world, while threatening with higher intensity certain ways-of-being in the world, which are also those less accountable for the situation (see Sultana 2022, 2023; Tuana 2022). Accordingly, we amplify the necessary work of paying more attention to marginalized experiences and narratives from yonder, from the non-Western world, through an ethic of plurality that emphasizes lived experiences. Making such a movement and recognizing how the Anthropocene is framed in reference to a 'safe operating space' for humanity (or rather a certain portion of the humanity), we are also tempted to question even further the boundaries of what life matters.

7.4.2 Open Up Space for Other-Than-Human Experiences

The hegemonic way of experiencing the world threatens diverse ways-of-being by exacerbating oppression over some people because of their class, race, gender, sexual orientation, and so on. If we take a critical look at the anthropocentrism of anthropocenic discourses, we might raise the question of how we open space for more-than-human ethics that takes care of non-human beings, as Christine Winter does, in her Chapter 4 on ozone, in this book. Even if Rockström et al. (2023) recognize that non-humans have been under-considered within the framework of PB, their attempt to provide a theoretical frame for just and safe PB remains limited to a nature/culture divide and a capitalistic model wherein non-human animals' relations are envisioned through the lenses of appropriation to the profit of humans and where

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

ecosystems are valued for their ability to sustain humanity potentialities. Although the stories we collect are told by humans, it now seems important to us to observe attentively what is at stake for the animals that are part of human practices and activities that we encounter. Additionally, when working with marginalized communities, our ethics regarding caring for the suffering of human beings guide us in questioning and reframing the scope of our moral considerations. This question is notably addressed by non-hegemonic ontologies (for example, animism) (Willerslev 2007; Escobar 2014; Rivera Andía 2019), multispecies ethnography (Kirksey & Helmreich 2010) but also anticolonial critical animal studies (Montford & Taylor 2020). The aforementioned perspectives involve ethical experiences that guide certain attitudes towards non-human animals but also privilege certain political responses that distance themselves from the ideology of control and mastering. Furthermore, as noted by Bauer (2016: 416), 'by reproducing the concept of nature, it also ushers in an implicit politics of knowledge production, creating a political epistemology that often gives Western scientists and technocrats a privileged position to define natural and desirable environmental conditions'.

7.5 Conclusion

Global and anthropocenic narratives – whose acme is met with PB – tend to produce a uniform representation, one embedded in the modern drift that has progressively devolved into an exsanguinated reason – a positivist universalism that is a leitmotif in which reason is deprived of reflexivity and blind to its own practices of domination. If the climate and ecological crisis, in its entanglement with multidimensional upheavals, sheds new light on the unviability of the hegemonic way of experiencing the world, the latter has to be questioned in its internal ability to provide a universal meaning, without deepening its tendency for an abstraction that serves the perpetuation of the control of meaning and restricting the potentialities towards action to a (dominant) minority. We argue that voices displayed on the margins of the Western world contain the seeds to express ontological and epistemological pluralities, to deploy the yonder on the centre and to produce a radical critique of the western drawing up of ongoing upheavals. Critical ethnography offers opportunities to promote reflexive practices, whose intentions are to shed light on and destabilize domination, and to pluralize the understanding of the anthropocenic situations we dwell in too. By doing so, the urgency raised by anthropocenic framings has to deal with the temporality of historical (for example, colonialism, imperialism) and ongoing harms (Gergan 2017) to embrace a care for slow violence (Nixon 2011) and focus attention on unsensational violence that exacerbates the vulnerabilities of ecosystems, non-human and disempowered individuals and groups.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

References

Baldwin, A., & Erickson, B. (2020). Introduction: Whiteness, Coloniality, and the Anthropocene. *Environment and Planning D: Society and Space*. 38(1), 3–11. DOI: 10.1177/0263775820904485.

Bauer, A. M. (2016). Questioning the Anthropocene and Its Silences: Socioenvironmental History and the Climate Crisis. *Resilience: A Journal of the Environmental Humanities.* 3, 403. DOI: 10.5250/resilience.3.2016.0403.

Baztan, J., Cordier, M., Huctin, J.-M., Zhu, Z., & Vanderlinden, J.-P. (2017). Life on Thin Ice: Insights from Uummannaq, Greenland for Connecting Climate Science with Arctic Communities. *Polar Science*. 13, 100–108. DOI: 10.1016/j.polar.2017.05.002.

Bleier, R. (1986). *Feminist Approaches to Science*. New York: Pergamon Press.

Bonneuil, C., & Fressoz, J.-B. (2016). *L'événement anthropocène: La Terre, l'histoire et nous*, Nouvelle éd. révisée et augmentée. Paris: Éditions Points.

Bravo, M. T. (2009). Voices from the Sea Ice: The Reception of Climate Impact Narratives. *Journal of Historical Geography*. 35(2), 256–78. DOI: 10.1016/j.jhg.2008.09.007.

Bremer, S., Wardekker, A., Dessai, S., et al. (2019). Toward a Multi-Faceted Conception of Co-Production of Climate Services. *Climate Services*. 13, 42–50. DOI: 10.1016/j.cliser.2019.01.003.

Brown, L., & Strega, S. (2005). *Research as Resistance: Critical, Indigenous and Anti-Oppressive Approaches*. Toronto: Canadian Scholar's.

Cameron, E. S. (2012). Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation Approach to the Human Dimensions of Climate Change in the Canadian Arctic. *Global Environmental Change*. 22(1), 103–14. DOI: 10.1016/j.gloenvcha.2011.11.004.

Cohen, J., Screen, J. A., Furtado, J. C., et al. (2014). Recent Arctic Amplification and Extreme Mid-Latitude Weather. *Nature Geoscience*. 7(9), 627–37. DOI: 10.1038/ngeo2234.

Crutzen, P. J. (2006). The 'Anthropocene'. In E. Ehlers & T. Krafft, eds., *Earth System Science in the Anthropocene*. Berlin: Springer, 13–18.

Crutzen, P. J., & Stoermer, E. F. (2000). The 'Anthropocene'. *Global Change Newsletter*. 41, 17–18.

Dabiri, E. (2021). *What White People Can Do Next: From Allyship to Coalition*. London: Penguin Books.

Davis, H., & Todd, Z. (2017). On the Importance of a Date, or Decolonizing the Anthropocene. *ACME: An International Journal for Critical Geographies*. 16(4), 761–80.

Denzin, N. K., & Lincoln, Y. S. (2018). *The SAGE Handbook of Qualitative Research*, 5th ed. Los Angeles, CA: Sage.

Escobar, A. (2014). *Sentipensar con la tierra: Nuevas lecturas sobre desarrollo, territorio y diferencia*. Medellín: Ediciones Unaula.

Fox-Kemper, B., Hewitt, H. T., Xiao, C., et al. (2021). Ocean, Cryosphere and Sea Level Change. In Intergovernmental Panel on Climate Change (IPCC), ed., *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press, 1211–362.

Gergan, M. D. (2017). Living with Earthquakes and Angry Deities at the Himalayan Borderlands. *Annals of the American Association of Geographers*. 107(2), 490–98. DOI: 10.1080/24694452.2016.1209103.

Grove, K., & Chandler, D. (2017). Introduction: Resilience and the Anthropocene: The Stakes of 'Renaturalising' Politics. *Resilience.* 5(2), 79–91. DOI: 10.1080/21693293.2016.1241476.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

Gupta, J., Liverman, D., Prodani, K., et al. (2023). Earth System Justice Needed to Identify and Live within Earth System Boundaries. *Nature Sustainability*. 6(6), 630–38. DOI: 10.1038/s41893–023-01064-1.

Haraway, D. (2015). Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin. *Environmental Humanities.* 6(1), 159–65. DOI: 10.1215/22011919-3615934.

Hastrup, K. (2018). A History of Climate Change: Inughuit Responses to Changing Ice Conditions in North-West Greenland. *Climatic Change*. 151(1), 67–78. DOI: 10.1007/s10584–016-1628-y.

Holm, L. K. (2010). Sila-Inuk: Study of the Impacts of Climate Change in Greenland. In I. Krupnik, C. Aporta, S. Gearheard, G. J. Laidler, & L. Kielsen Holm, eds., *SIKU: Knowing Our Ice*. Dordrecht: Springer Netherlands, 145–60.

Ingold, T. (2018). Between Science and Art: An Anthropological Odyssey. In S. Bergmann & F. J. Clingerman, eds., *Arts, Religion, and the Environment*. Boston: Brill, 96–114.

Intergovernmental Panel on ClimateChange. (2022). *The Ocean and Cryosphere in a Changing Climate: Special Report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press. DOI: 10.1017/9781009157964.

Jonsson, S. (2016). Where Humanism Finds Its Ends: Lessons from Pia Arke and Katarina Pirak Sikku on the Difficulty of Narrating the Arctic. *Studies in Travel Writing*. 20(3), 226–36. DOI: 10.1080/13645145.2016.1212502.

Karlsdóttir, A., Huctin, J.-M., Gherardi, J.-M., Vanderlinden, J.-P., & Sandré, T. (2023). Working with and for Arctic Communities on Resilience Enhancement. In *Arctic Year Book 2023*. https://arcticyearbook.com/images/yearbook/2023/Scholarly_Papers/12_Karlsdttir_AY2023.pdf

Kirksey, S. E., & Helmreich, S. (2010). The Emergence of Multispecies Ethnography. *Cultural Anthropology.* 25(4), 545–76. DOI: 10.1111/j.1548-1360.2010.01069.x.

Krauß, W. (2020). Narratives of Change and the Co-Development of Climate Services for Action. *Climate Risk Management*. 28, 100217. DOI: 10.1016/j.crm.2020.100217.

Krupnik, I., & Jolly, D. (2002). *The Earth Is Faster Now: Indigenous Observations of Arctic Environment Change.* Fairbanks, AK: Arctic Research Consortium of the United States.

Lewis, S. L., & Maslin, M. A. (2015). Defining the Anthropocene. *Nature*. 519(7542), 171–80. DOI: 10.1038/nature14258.

Luke, T. W. (2020). Tracing Race, Ethnicity, and Civilization in the Anthropocene. *Environment and Planning D: Society and Space*. 38(1), 129–46. DOI: 10.1177/0263775818798030.

Madison, D. S. (2020). *Critical Ethnography: Method, Ethics, and Performance*. Los Angeles, CA: Sage.

Montford, K. S., & Taylor, C., eds. (2020). *Colonialism and Animality: Anti-colonial Perspectives in Critical Animal Studies*. Routledge Taylor & Francis Group.

NCAI & MSU. (2012). *'Walk Softly and Listen Carefully': Building Research Relationships with Tribal Communities*. Washington, DC: Authors.

Nixon, R. (2011). *Slow Violence and the Environmentalism of the Poor.* Cambridge, MA: Harvard University Press.

Noblit, G. W., Flores, S. Y., & Murillo, E. G. (2004). *Postcritical Ethnography: Reinscribing Critique.* Cresskill, NJ: Hampton Press.

Ottinger, G. (2017). Making Sense of Citizen Science: Stories as a Hermeneutic Resource. *Energy Research & Social Science*. 31, 41–49. DOI: 10.1016/j.erss.2017.06.014.

Overland, J., Francis, J. A., Hall, R., et al. (2015). The Melting Arctic and Midlatitude Weather Patterns: Are They Connected? *Journal of Climate*. 28(20), 7917–32. DOI: 10.1175/JCLI-D-14-00822.1.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

Preece, J. R., Mote, T. L., Cohen, J., et al. (2023). Summer Atmospheric Circulation over Greenland in Response to Arctic Amplification and Diminished Spring Snow Cover. *Nature Communications.* 14(1), 3759. DOI: 10.1038/s41467–023-39466-6.

Previdi, M., Smith, K. L., & Polvani, L. M. (2021). Arctic Amplification of Climate Change: A Review of Underlying Mechanisms. *Environmental Research Letters*. 16(9), 93003. DOI: 10.1088/1748-9326/ac1c29.

Richardson, K., Steffen, W., Lucht, W., et al. (2023). Earth beyond Six of Nine Planetary Boundaries. *Science Advances*. 9(37), eadh2458. DOI: 10.1126/sciadv.adh2458.

Rivera Andía, J. J. (2019). *Non-Humans in Amerindian South America: Ethnographies of Indigenous Cosmologies, Rituals and Songs*. New York: Berghahn.

Rockström, J., Gupta, J., Qin, D., et al. (2023). Safe and Just Earth System Boundaries. *Nature*. 619(7968), 102–11. DOI: 10.1038/s41586–023-06083-8.

Roosvall, A., & Tegelberg, M. (2013). Framing Climate Change and Indigenous Peoples: Intermediaries of Urgency, Spirituality and De-Nationalization. *International Communication Gazette*. 75(4), 392–409. DOI: 10.1177/1748048513482265.

Sandré, T., Wardekker, A., & Gherardi, J. (2024). While Waiting for the Sea Ice: Stories of Changes from Ittoqqortoormiit. In S. Bremer & A. Wardekker, eds., *Changing Seasonality: How Communities Are Revising Their Seasons*. Berlin: De Gruyter, 61–68.

Sealey-Huggins, L. (2018). The Climate Crisis Is a Racist Crisis: Structural Racism, Inequality and Climate Change. In A. Johnson, R. Joseph-Salisbury, & B. Kamunge, eds., *The Fire Now: Anti-Racist Scholarship in Times of Explicit Racial Violence*. London: Zed Books, 99–113.

Serreze, M. C., & Barry, R. G. (2011). Processes and Impacts of Arctic Amplification: A Research Synthesis. *Global and Planetary Change.* 77(1), 85–96. DOI: 10.1016/j.gloplacha.2011.03.004.

Skjervedal, A.-S. (2021). Building Bridges between Research and Community: Arctic Hub. arctichub.gl/building-bridges-between-research-and-community/.

Smith, L. T. (2021). *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books.

Stephen, K. (2018). Societal Impacts of a Rapidly Changing Arctic. *Current Climate Change Reports*. 4(3), 223–37. DOI: 10.1007/s40641–018-0106-1.

Sultana, F. (2022). The Unbearable Heaviness of Climate Coloniality. *Political Geography*. 99, 102638. DOI: 10.1016/j.polgeo.2022.102638.

Sultana, F. (2023). Decolonizing Climate Coloniality. In R. Solnit & T. Young Lutunatabua, eds., *Not Too Late: Changing the Climate Story from Despair to Possibility*. Chicago: Haymarket Books, 58–65.

Tuana, N. (2022). *Racial Climates, Ecological Indifference: An Ecointersectional Analysis*. New York: Oxford University Press.

Vanderlinden, J.-P., Baztan, J., Chouinard, O., et al. (2020). Meaning in the Face of Changing Climate Risks: Connecting Agency, Sensemaking and Narratives of Change through Transdisciplinary Research. *Climate Risk Management*. 29, 100224. DOI: 10.1016/j.crm.2020.100224.

Willerslev, R. (2007). *Soul Hunters: Hunting, Animism, and Personhood among the Siberian Yukaghirs*. Berkeley: University of California Press.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 05 Nov 2026 at 10:37:15, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009443586.010