

5. Eco-Memory and the Anthropocene Imagination: Ed O'Loughlin's *Minds of Winter*

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Abstract

Despite the relative dearth of ecocritical readings of Canadian literature, environmental concerns have long been part of the bedrock of theorising about Canadian culture and identity. Northrop Frye's *The Bush Garden*, Margaret Atwood's *Survival*, and Sherrill Grace's *Canada and the Idea of North* are just three titles which highlight the foundational relationship between Canadian nature and the social order, calling our attention to the precarious enmeshments between humans and nonhumans and the discursive, physical, and biological legacies borne by the land. This chapter gives a brief overview of the conceptual stakes of Anthropocene discourse in regard to reading Canadian cultural frames and employs the lens of eco-memory to examine relationships between nature, culture, and power in contemporary English Canadian fiction. Guided by the tenets of material ecocriticism, I attend to the ways Ed O'Loughlin's novel *Minds of Winter* opens avenues of the Anthropocene imagination where we can rethink the interplay of human and nonhuman historical agencies and reconceive memory as an ethical mode of ecological relationality.

Keywords

Canada, material ecocriticism, Anthropocene, eco-memory, Ed O'Loughlin.

How to cite this book chapter:

Šlapkauskaitė, R. (2023). Eco-Memory and the Anthropocene Imagination: Ed O'Loughlin's *Minds of Winter*. In: Bédard-Goulet, S. & Premat, C. (eds.), *Nordic and Baltic Perspectives in Canadian Studies: An Interdisciplinary Approach to Northern Spaces Narratives*, pp. 165–192. Stockholm University Press. DOI: <https://doi.org/10.16993/bci.f>. License: CC BY-NC.

The Anthropocene and Canadian Literary Ecologies

Since its coinage by Paul Crutzen and Eugene F. Stoermer in 2000, the term *Anthropocene* has become an epistemic ground for measuring the critical valence of most, if not all, of our considerations about the implications of human-induced climate change, environmental collapse, and species extinction. Ecocriticism and the expanding field of environmental humanities (Bate, 2000; Garrard, 2004; Buell, 2005; Bennett, 2010; Huggan & Tiffin, 2010; Iovino & Oppermann, 2014; Clark, 2015; Colebrook, 2014; Alaimo, 2016; Haraway, 2016; Malm, 2016; Albrecht, 2019) have drawn attention to the discursive inscriptions of the Anthropocene as a powerful diagnostic of the disruption of the material and moral bonds that bring the entanglements of places, subjectivities, historicities, and technologies into being. As Adam Trexler observed in 2015,

The term *Anthropocene* has appeared in nearly two hundred peer-reviewed articles, become the title of a new academic journal, and is the focus of a study group convened by the International Union of Geological Sciences to decide by 2016 whether the term should be officially adopted. Yet *Anthropocene* is also anticipatory, indicating humanity's probable impacts on geophysical and biological systems for millennia to come (2015, p. 1).

By now scientifically sanctioned as an era in which humanity acts as 'a decisive geological and climatological force' (Clark, 2018, p. 16), our anthropogenic epoch heralds environmental degradation as 'a loss of proportion *tout court*, vertiginously and as yet without any clear alternative' (2018, p. 147). Implicit in cultural theory's environmental turn, therefore, is an attempt 'to unsettle normative thinking about environmental status quos' (Buell, 2005, p. 24), re-examine the 'crucial categories by which people have made sense of the world and their lives' (Clark, 2018, p. 9), rethink the patterns of extinction as tied to the 'calculative conceptual base' (Colebrook, 2014, p. 54) of (post)industrial modernity, and refigure the affective and ethical ties that link living beings to the world. Because, to use Timothy Clark's phrasing, the Anthropocene 'puts in crisis the lines between culture and nature, fact and value, and between the human and the geological or meteorological' (Clark,

2018, p. 9), the world in which we dwell, as Claire Colebrook seconds, 'is becoming increasingly impossible to know and imagine' (2014, p. 33). As a challenge to imagination and understanding, then, the Anthropocene is not only a geo-historical, but also a hermeneutic, category, one that calls the meaning of life itself into question.

Given the significance our ability to articulate our imaginations has to our capacity to act, the hermeneutic dimension of the Anthropocene seems key to its conceptual ambivalence as a boundary category. This pertains both to the scientific debate over the adequacy of the term, which sidesteps the contingencies of region, economy, class, race, and gender, and the rise of Anthropocene fiction as a literary genre set to address 'the historical tension between the existence of catastrophic global warming and the failed obligation to act' (Trexler, 2015, p. 9). The interpretive weight of the Anthropocene discourse balances over a conceptual wedge, splitting scholars who highlight the global character of climate change as derived from long-lasting anthropocentric activities from those who call for a more nuanced appreciation of the Anthropocene as the legacy of specific social praxis. A host of neighbouring concepts, such as Capitolocene (Moore, 2016), Chthulucene (Haraway, 2016), Novacene (Lovelock, 2019), 'carbon democracy' (Mitchell, 2009), and 'fossil economy' (Malm, 2016), take issue with the seeming universality of the term *Anthropocene*, which, in their view, fails to acknowledge how transnational global capitalism works to extract and appropriate the earth's resources, including human and nonhuman life. Andreas Malm deftly sums up the argument by showing how the trope of the fossil welds the natural world to the social formation and sets up a system of 'self-sustaining growth predicated on the growing consumption of fossil fuels, and therefore generating a sustained growth in emissions of carbon dioxide' (2016, p. 11). In contrast, historian Dipesh Chakrabarty has reservations about such critical equations, suggesting that the logic of capitalism underlying (post)industrial modernity falls short of explaining climate change as a collision of time scales because emphasis on human activity overlooks the agency of the planet, whose deep time exceeds any frame of reference that privileges

humans. Building on the dialectic of *global/planetary* as homologous with *human/nonhuman*, Chakrabarty maintains that ‘Our current warming is an instance of planetary warming that has happened both on this planet and on other planets, humans or no humans, and with different consequences. It just happens that the current warming of the earth is of human doing’ (Chakrabarty, 2014, p. 22).

Clearly, Anthropocene discourse is inextricable from the stories through which we organise our physical, intellectual, and affective relays with the world. In this respect, material ecocriticism offers a particularly apt conceptualisation of storytelling as ‘an ongoing process of embodiment that involves and mutually determines cognitions, social constructions, scientific practices, and ethical attitudes’ (Iovino & Oppermann, 2014, p. 5). If we accept the contention that the environment is host to multi-scalar time events and material-semiotic agencies that exceed the human, then we may also think of the sedimentary character of the Anthropocene as a form of signification in which ‘bodily natures and discursive forces *express* their interaction whether in representations or in their concrete reality’ (Iovino & Oppermann, 2014, p. 2). In other words, even the narratives which do not explicitly thematise the Anthropocene may be shown to perform diagnostic work through an aesthetic structuring of lived experience. As Jennifer Wenzel reminds us in *The Disposition of Nature*, narrative is the cognitive mechanism through which we make sense of our environment and ‘particular literary genres, aesthetic modes, and narrative templates provide the forms through which human understandings of nonhuman nature and its dispositions are forged’ (2020, p. 15). This is to say that narrative patterns take heart from and find form in *matter*, soliciting readerly response as a process of responsibility for meaning-making, which Wenzel calls ‘reading for the planet’ (2020, p. 2). Her understanding of ‘reading for the planet’, as both an environmentalist *praxis* and an interpretive rubric, aligns with Lawrence Buell’s argument that ‘the subject of a text’s representation of its environmental ground *matters* – matters aesthetically, conceptually, ideologically. Language never replicates extratextual landscapes, but it can be bent toward or away from them’ (2005, p. 33).

In material ecocritical terms, narrative hubs load into discourse the material-semiotic ties that constitute the structural beams of ‘our storied world’ (Iovino & Oppermann, 2014, p. 5), bringing to consciousness the ways in which

material forms – bodies, things, elements, toxic substances, chemicals, organic and inorganic matter, landscapes, and biological entities – intra-act with each other and with the human dimension, producing configurations of meanings and discourses that we can interpret as stories (Iovino & Opperman, 2014, p. 7).

Thinking about narrative and environment as co-constitutive of lived experience has important implications for our ideas about interactions of place, body, and historical subjectivity, which unravel along the conceptual axes of *nature/culture*, *human/nonhuman*, *present/past*, and *life/death*. In Canada, as Simon Estok observes, ecocritical thought has been long dominated by ‘a clear and disproportionate imbalance weighing heavily toward celebrating American landscapes, American poetry, and American ecocriticism’ (2009, p. 85), with Susie O’Brien’s ecocritical work being an early notable exception. Cheryll Glotfelty and Harold Fromm’s inaugural anthology *The Ecocriticism Reader* (1996), for example, features only one essay by a Canadian scholar and none on specifically Canadian contexts. In this respect, *Greening the Maple. Canadian Ecocriticism in Context*, edited by Ella Soper and Nicholas Bradley and published in 2013, marks an important critical milestone, which not only gathers together a panoply of essays that examine the complexities of Canadian and Quebecois ecocritical thought, but also warrants a renewed attention to the environmental dimension of Canadian cultural production and critical theory, especially vis à vis the country’s relation to the United States. As Gabrielle Helms notes in her essay, ‘It is not difficult to find environmentally conscious poetry in Canada today, but critics of Canadian literature seem to lag behind in its analysis.’ (as cited in Soper and Bradley, 2013, p. 145). For Estok, as for many of the contributors to *Greening the Maple*, the scarcity of ecocritical work in Canada is proportional to the country’s role as ‘a “pimp” lured by American dollars, erasing its own identity and selling its own geographies to

Hollywood' (2009, p. 87), so that, as O'Brien shows, the image of Canada 'as a natural resource, outside (but available to) the practices of American consumers' becomes 'a variation on a familiar imperialist trope' (as cited in Soper and Bradley, 2013, p. 171). This is sadly ironic, given that Joseph Meeker's theorising in *The Comedy of Survival* (1972) of 'the biological circumstances of life' (1974, p. 23) and comedy as a narrative of 'a ritual renewal of biological welfare' (1974, p. 24), which he published while teaching at Athabasca University, Canada, was well in advance of the intellectual consolidation of ecocriticism as a field of research in its own right. His celebration of the comic view as commensurate with ecological enmeshment and interspecies ethics also fell out of step with the dominant tenor of the Canadian literary criticism of the day, as epitomised in the work of Northrop Frye's *The Bush Garden* and Margaret Atwood's *Survival*, both of which cast man's relations to the environment as a dramatic conflict with unhappy consequences.

Although lacking in distinctly ecocritical aspirations, Frye's 1965 essay 'Conclusion to a Literary History of Canada' remains an important attempt to reflect on Canadian literature as a cultural formation derived from the colonial project of nationhood. His insistence that Canadian literature, 'whatever its inherent merits, is an indispensable aid to the knowledge of Canada' (1995, p. 217), seeks to bring home the idea that the country's social imagination developed in response to the frontier anxiety underpinning the settlers' engagement with the colonial space conceived as wilderness: 'To feel "Canadian" was to feel part of a no-man's-land with huge rivers, lakes, and islands that very few Canadians had ever seen' (Frye, p. 222). Nick Mount's recent reminder in *Arrival: The Story of CanLit*, that 'By the 1950s, Canadian art had a "distinct canon of images": the lonely pine, the snow-covered village church, the canoe, the mountain' (2017, pp. 5–6) synchs in with Frye's reading of the 'deep terror in regard to nature' (1995, p. 227) in Canadian writing, which he sees as a consequence of a 'garrison mentality' (1995, p. 233) that posits nature as an enemy and thus constrains society's creativity within the bounds of 'the conservative idealism of its ruling class' (1995, p. 238). For Frye, even the processes of industrial and urban expansion are

consonant with a shift towards ‘a revolutionary garrison within a metropolitan society’ (1995, p. 233), sustaining a community that ‘accepts...conventional standards’ (1995, p. 233) and dreams of a ‘pastoral myth’ (1995, p. 242), which sublimates environmental threats into a vision of ‘human kinship with the animal and vegetable world, which is so prominent a part of the Canadian frontier’ (1995, p. 242). As many of the English Canadian novels published since the turn of the century show, Canadian fascination with nonhumans, especially animals, seems still to hold true. Consider, for example, Barbara Gowdy’s *The White Bone* (1998), Katherine Govier’s *Creation* (2002), Yann Martel’s *Life of Pi* (2002), Carla Gunn’s *Amphibian* (2009), André Alexis’s *Fifteen Dogs* (2015), Alissa York’s *The Naturalist* (2016), and Melissa Barbeau’s *The Luminous Sea* (2018). Even Esi Edugyan’s Giller-Prize-winning *Washington Black* (2017), a novel that thematises the legacy of slavery and nineteenth-century racism in Canada and beyond, employs the figure of the octopus to highlight the ethical complicity of Western science in defining life as a fungible resource. As Janice Fiamengo writes in *Other Selves: Animals in the Canadian Imagination*, ‘Animals are so fundamental to [Canadian] writing that it might indeed be said that our literature is founded on the bodies of animals – alive or dead; anthropomorphized or “realistic”; indigenous or exotic; sentimental, tragic, magical, and mythical’ (2007, pp. 5–6).

Atwood’s *Survival. A Thematic Guide to Canadian Literature* recalls Frye’s arguments about the material conditions of Canadian life, suggesting that the foundational guilt of the fur trade gave basis for the affective register of the early animal stories in Canada. Canadians, Atwood argues, ‘feel threatened and nearly extinct as a nation, and suffer also from life-denying experience as individuals – the culture threatens the “animal” within them – and ... their identification with animals is the expression of a deep-seated cultural fear’ (1972, p. 79).

The imperative of survival, which organises Atwood’s thinking about Canadian literature in the 1970s, develops Frye’s reasoning into further generalisations about Canada’s cultural predicament and aesthetic imaginary, exfoliating them from a psychological conflict with the environment as either indifferent or actively

hostile to man. The only two alternatives she finds in Canadian literary ecologies are either an isolated and alienated individual or a dead one (1972, p. 54). Pervaded by environmental antagonism, Canadian literature in this account emerges as a record of victimisation shared by humans and animals alike.

Both Frye's and Atwood's views have since received a series of critiques ranging from Frank Davey's analysis of the reductive character of thematic criticism to Noah Richler's take on the 'garrison mentality' as 'a stigma on the Canadian literary psyche' (2006, p. 7). Ironically, as Soper and Bradley observe, 'skepticism about the merits of thematic approaches to Canadian literary criticism [may have] served to inhibit the emergence of an ecocritical tradition in Canada', whereas thematic criticism 'pointed...in that direction' (2013, p. xxvii). Sherrie Malisch's rereading of the 'garrison mentality' stands out in this context, highlighting, as it does, the ecocritical and ideological implications of Frye's thinking. Borrowing from Estok's reasoning about ecophobia as a historical mode of responding 'to what we perceive as environmental threats and as menacing alienness' (as cited in Iovino & Oppermann, 2014, p. 131), Malisch pries open Frye's ecological assumptions about how the settlers' fear of the natural world stifled creativity and led 'to a particular type of ecological harm, namely the forging of overly rational and mechanistic built environments' (2014, p. 186). In contrast to Frye's reasoning that turning the environment into home is only possible through the overcoming of the fear of nature, Malisch recasts ecophobia as an ethos of earthcare, suggesting that 'restraints on individual desires and creative ambitions, based on collective need, will be a critical component in facing climate change' (2014, p. 194). The environment, in her reading, is not only hospitable to human fear, but, in fact, solicits it as a form of responsibility to the coeval multiplicities of life. Far from oppressive, in other words, fear may be bioethical, working in tandem with dictional jokes and asyndetic aplomb, like the ones we find in Dennis Lee's Anthropocene poetry: 'Icecaps shrink in the brain-/rays; noetic/infarction; clots in the tropic hominid./ Synapse events on the pampas, while/consciousness voids itself in the bowl of sky' (2003, p. 7).

Canada's Colonial Legacies and Eco-Memory

In material ecocritical terms, theorising about Canada's literary ecologies must also take the measure of the material and epistemic violence of colonialism and environmental racism, whose institutional intersections pattern the troubles of English Canadian literature as an industry and cultural formation. Nick Mount's account of the literary boom in Canada after the Second World War is explicitly mindful of the environmental basis of the country's economic prosperity:

With oil in Leduc, iron in Ungava, uranium in Blind River, aluminium in Kitimat, salt in Goderich, and the construction of a national pipeline and an international seaway, more Canadians than ever before had more disposable income than ever before, and they spent much of it on America's new resource: mass-market consumer products, from Barbie dolls to paperback novels (2017, p. 14).

A recent collection of essays in *Refuse: CanLit in Ruins*, edited by Hannah McGregor, Julie Rak, and Erin Wunker, similarly alerts us to how CanLit operates as 'a multitiered system of power, influence, reputation, selling power, and fame' (2018, p. 124), where exclusion, elitism, and resistance, as Laura Moss demonstrates, have always been part of its episteme (2018, p. 147). By zeroing in on the toxic sediments in the cultural formation, these essays magnify the intersections between discourses on nationhood, race, gender, and culture and the implications they have for the conception of identity and social order arising from the ambivalence of 'refuse' as simultaneously a process of rejection, waste, and rewiring. A number of essays in the collection ponder what Phoebe Wang identifies as 'the disjunction between the pervading discourse of diversity and the meagre acknowledgment of the real barriers they face' (as cited in McGregor, Rak, & Wunker, 2018, p. 151), but I would like to highlight the poignancy of Kristen Darch and Fazeela Jiwa's observation that Canada's literary scene and its critical apparatus are unthinkable without the broader context of imperial conquest: 'The canon and the mainstream literary community that emerged has been built alongside genocide and ongoing settler colonialism' (as cited in McGregor, Rak, &

Wunker, 2018, p. 178). This is why in his own essay in the collection the Cree writer Joshua Whitehead says Canada ‘is a graveyard is a haunted house is a necropolis’ (as cited in McGregor, Rak, & Wunker, 2018, p. 191), built on the erasure of Indigenous ecologies. Unlike the colonial settlers, Whitehead points out, Indigenous people ‘acknowledge rocks, trees, rivers, and skies as living things’ and are therefore ‘ beholden and accountable to them, they are our relations’ (as cited in McGregor, Rak, & Wunker, 2018, p. 191). What this means is that the legacy of colonialism in Canada is a concern that runs across the arc of the Anthropocene narrative, alerting ecocriticism to the need ‘to take account of itself as a piece of the postcolonial puzzle’ (Estok, 2009, p. 90). This is certainly a sensibility shared by Indigenous writers in Canada, some of whom, like Thomas King (*The Back of the Turtle*), Eden Robinson (*Son of a Trickster*), Waubgeshig Rice (*Moon of the Crusted Snow*), and Cherrie Dimaline (*The Marrow Thieves*), have directly addressed it in their recent Anthropocene fictions.

The political stakes of placing the global spike of the Anthropocene in the context of colonial history, as Heather Davis and Zoe Todd argue in their article ‘On the Importance of a Date, or Decolonizing the Anthropocene’, are no less far-reaching. Members of the Working Group on the Anthropocene, the two Canadian scholars question the proposal to accept ‘the mid-twentieth century as the optimal boundary’ (Davis & Todd, 2017, p. 762), suggesting 1610 as a more capacious demarcation, one that magnifies the Anthropocene as correlative with the historical displacement of Indigenous systems of thought and ethical practice:

We make the case for colonialism as the start date of the Anthropocene for two reasons: the first is to open up the geologic questions and implications of the Anthropocene beyond the realm of Western and European epistemology to think with Indigenous knowledges from North America; the second is to make a claim that to use a date that coincides with colonialism in the Americas allows us to understand the current state of ecological crisis as inherently invested in a specific ideology defined by proto-capitalist logics based on extraction and accumulation through dispossession – logics that continue to shape the world we live in and that have produced our current era (Davis & Todd, 2017, p. 764).

The intellectual thrust of this reasoning probes the logical knots that tie different scales and modes of remembrance into an institutional web of geo-social history that underwrites the Anthropocene narrative. By folding the Anthropocene events into the morphology of settler colonialism, Davis and Todd transcribe the ambit of lived experience into a gambit of eco-memory, a cognitive infrastructure of interlocking agencies of matter, wherein negotiations over knowledge, understanding, and remembering produce the institutional discourse of world affairs. Tracking the origins of the present environmental collapse back to colonial history calls for a recalibration of the epistemic resources and interpretive practices in the service of which certain material inscriptions are treated as instructive moments while others are systematically ignored for their power as mnemonic prompts.

Given the emphasis material ecocriticism places on the human entanglements with ‘a hybrid, vibrant, and living world’ (Iovino & Oppermann, 2014, p. 3), its ethics of care articulates a need to think the Anthropocene itself as a mode of remembering, constituted through material-semiotic relays between consciousness and the physical environment. A good case in point is the recently published collection of essays *Planetary Memory in Contemporary American Fiction*, whose editors stipulate the need to acknowledge the mutual imbrication of private and planetary time events under the auspices of planetary memory:

By registering the literary inscription of individual and collective memories of climate change experience alongside the growing archive of vanishing landscapes and species that characterise the emerging planetary conditions of the Anthropocene, the notion of planetary memory enables us to join macro-, meso- and microscopic perspectives (Bond, De Bruyn, & Rapson, 2020, p. 859).

Framed as an injunction to ‘read[...] for the planet’ (Wenzel, 2020, p. 2), planetary memory performs important conceptual work in showing how ‘historical violence might be geologically inscribed’ (Bond, De Bruyn, & Rapson, 2020, p. 859) and human acts of remembering unfold in relation to nonhuman scales, archives, and transactions. Whilst recognising the usefulness of this concept for the study of mnemonic processes in Anthropocene narratives,

I nevertheless opt for the more socially-oriented notion of eco-memory, which is less concerned with the collision of scales than it is with the processes of inscription, whereby the environment is transformed into an *oikos*.¹ As a form of hermeneutic activity solicited by the ecological crisis, such eco-memory reaffirms Edward Casey's phenomenological reasoning about how memory is 'naturally place-oriented or at least place-supported' (2000, pp. 186–187) and Vanessa Watts's call to embrace the Indigenous notion of Place-Thought, which highlights the material and ethical bonds tying living bodies to the land. Like Casey, who foregrounds the significance of the living body as a mediator between memory and place (2000, p. 189), Watts speaks against the separation of place and thought, reminding us that 'land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts' (2013, p. 21). Understanding land as a historical agent through Place-Thought lines up with the work of memory in postcolonial criticism, launching ethical queries into the structural homologies between the histories of settler colonialism, industrial capitalism, and environmental emergency. Conceived as a living body of storied matter, land figures as no less than a catalyst of eco-memory, delegating humans and nonhumans to preserve the ontological continuities of different modes of life and their creative becomings.

As an environmental trope, land has had a structurally highlighted position in Canadian literature, heaving into view the colonial attempts to map its geography both physically and conceptually. The ethical dimension of human orientation in space and positioning in place marks a distinction between *land* and *territory* that characterises the cartographic ambitions of much of colonial endeavour at social arrangement. In Canada, as W. H. New argues in *Land Sliding: Imagining Space, Presence, and Power in Canadian Writing*, *land* has long served as a verbal trope, which underlay the relations of power that measured it in

¹ Though falling out of the scope of this chapter, Rosanne Kennedy's theorising of 'multidirectional eco-memory' bears important conceptual weight. See her essay 'Multidirectional Eco-Memory in an Era of Extinction' in *The Routledge Companion to Environmental Humanities*, edited by Ursula K. Heise, Jon Christensen and Michelle Niemann.

terms of ownership and instrumental use. *Territory*, by contrast, was ‘a designation of claim over land, of *jurisdiction*, the power to *say the law*’ (1997, p. 21). Yet, conceptually lodged in terms such as ‘*new world, savage wilderness, and virgin territory*’ (New, 1997, p. 23), *land* too must be understood as part of the vocabulary that produced colonial space by relying on the epistemological assumptions, social attitudes, and judgments guiding the voyages of exploration and the successive waves of European settlers. In material-ecocritical terms, narrative was instrumental in setting up and maintaining the asymmetries of social power, which relegated both the Indigenous peoples and their lands to the status of political pawns and property.

New’s concern for the colonial transformations of Canada’s cultural ecologies and subjectivities resonates in Sherrill Grace’s analysis of North as a discursive formation, which has long defined Canada as an imagined community. In *Canada and the Idea of North*, she demonstrates how both scientific and literary cartographies have been pivotal to the discursive formation of North as a spatiotemporal anchor of Canadian identity, one that, in the words of the geographer Rob Shields, ‘forms the mythic “heartland” of Canada but remains a zone of Otherness in the spatial system of Canadian culture’ (as cited in Grace, 2007, p. 42). Grace echoes this observation by pointing out how the North operates as what we may call a hub of eco-memory, deriving its identity from different signifying systems, ideological interests, historical moments, and subjectivities invested in negotiations over man’s relations to nature. This is to say that beyond the physical fact of the Arctic region that dominates Canada’s physical and conceptual geography, North is also a matter of historical experience and aesthetic engagement with the environment, all of which speaks of the multiple points of convergence of space, time, and representation in our growing understanding of circumpolar regions and their cultures. As Grace reminds us, ‘North is both historically lived and changing *and* spatially configured, even if (for all but specialists) *very* vaguely and imprecisely’ (2007, p. 22).

This is particularly important when examining written records – historiography, travel writing, and fiction – about the North and its inhabitants, whose limited agency in discourse testifies to the legacy of colonialism that has continually deprived northern

subjectivity of adequate means of self-representation. Racism, sexism, and imperialism, Grace notes, are recurrent aspects of the master narrative of North, even if: ‘The representations of North are as beautiful, powerful, inviting, disturbing, exclusionary, and exploitative as the individuals creating and using them *according to accepted standards and ideas of the day*’ (2007, p. 23).

Though more likely to live in southern metropolises than in northern communities, Canadian writers like Rudy Wiebe, Aritha van Herk, Robert Kroetsch, and Mordecai Richler, to name but a few, have addressed the issue of (mis)representation of the North by revisiting and revising this master narrative, which has long been supplying cultural memory with ideological figures and tropes and thus conceiving an illusion of the North as ‘a stable, material, or social reality’ (Grace, 2007, p. 24) rather than a spatial configuration that is complex, ‘multiple, shifting and elastic’ (2007, p. 16). In Grace’s reading, by negotiating physical boundaries, affective ties, and modes of knowledge, Canadian discourse on nordicity performs the labour of eco-memory, where the cross-overs of human and nonhuman historical agencies and Indigenous and settler epistemologies not only shape the complexities of nation as narration, but also stage the voice of the Anthropocene, tracing the ethical ligatures of the material-semiotic networks that define humans as ecologically bounded beings. Figured as a hub of eco-memory, land and its tropological extensions in Canadian literature, as I argue, have the power to speak back to what Estok calls ‘a lack of presence, a hyphenation...and under-representedness attached to Canadian ecocriticism’ (Estok, 2009, p. 93) and cast in relief the material syntax of the environment in which humans and nonhumans build their abodes.

As I now turn to Ed O’Loughlin’s *Minds of Winter*, my attention falls on how this historical fiction figures ecological agencies and environmental precarity as sign-events of the Anthropocene. In bringing this novel under the rubric of eco-memory, I attempt to show how it reconsiders the historical legacy of European expeditions to the Arctic and Antarctic and calls our attention to the visceral links between territorial incursions and resource extraction and the embeddedness of social histories in the tissues of terrestrial life.

Mapping Memory in Ed O'Loughlin's *Minds of Winter*

Revolving around the Greenwich meridian, an imaginary line that connects the Arctic to the Antarctic, *Minds of Winter* sets its protagonists' quest for the truth about their family histories in the context of the voyages of Arctic and Antarctic exploration associated with John Franklin, Francis Crozier, Robert Scott, Lawrence Oates, Cecil Meares, and Roald Amundsen. In doing so, O'Loughlin's novel visually maps these explorers' itineraries, problematising not only the relationship between images and words, but also the discursive authority of cartography as a colonial epistemology, in which power takes up residence in the guise of scientific truth. The evocative use of maps, both as metaphors and material figures, in *Minds of Winter* measures the labour of memory as a site of conflicting historical experiences, cultural subjectivities, and truth claims. Echoing Grace's thinking about North as 'a geographical proteus' (2007, p. 43), O'Loughlin dramatises the human encounters with the nonhuman environment in an attempt to reappraise polar exploration as a vehicle of the extractive economy which defines the geopolitical significance of nature for the age of the Anthropocene.

To the extent that histories of exploration, navigation, trade, and imperial control inform the novel's framing of space, my interpretive focus lies on the relay of meaning resulting from the dialectic of the visual and verbal components of the narrative, on the one hand, and the significance of place as a mnemonic agent, on the other. In examining the tropological significance attributed to the circumpolar regions in *Minds of Winter*, I am following Sarah Wylie Krotz's probing of the linguistic performance of surveillance and settlement in early English Canadian literature, which 'attest[s] to a cartographic subjectivity that was expressed not just in maps, but in small gestures that arise from an impulse to map: tracing lines, naming places, and visually ordering spaces such that one might sense one's position in a larger (and largely invisible) geography' (2018, p. 13). Apart from laying bare the evocative power of narrative to conjure up cognitive maps that convey the spatial perception and experience of 'the geo-coded world' (2018, p. 14), Krotz unravels the dialectic of movement and settlement in the hermeneutic perimeter of the life of

colonial settlers in Canada, for whom territorial occupation ‘involved not just inscribing, but also attempting to read, a terrain that for settlers as well as Indigenous peoples included overlapping and frequently conflicting layers of meaning’ (2018, p. 19). This complexity of territorial negotiations brings to surface a set of conceptual dichotomies in the legibility of space – namely, *territory/land*, *occupation/inhabitation*, and *transport/wayfaring* – that organise the modes of spatial accommodation characteristic of the geo-bodies in early English Canadian literature as much as in O’Loughlin’s novel. Crucially, also, they recall Ronald Bordessa’s enduring observation that Canadian authors’ thematic and figural engagement with landscape poses the question of ‘what constitutes morally justifiable ways of living’ (as cited in Simpson-Housley & Norcliffe, 1992, p. 58). As in much of post-war English Canadian critical thought (Frye, 1971; Atwood, 1972; Moss, 1974), inbuilt in Bordessa’s argument is the idea that landscape inheres in the Canadian experience and man’s relation to nature is pivotal to Canadian identity.

O’Loughlin’s concern for the cognitive ecology of polar regions draws our attention to the conceptual links between verbal and visual frames that set up the architecture of the story. At the heart of *Minds of Winter* is the enigma of a chronometer designed for Franklin’s last and lost expedition, which resurfaces at an auction in 2009 disguised as a carriage clock and is purchased by the Royal Observatory and exhibited at the National Maritime Museum in Greenwich. The novel’s Prologue, which reproduces an article from the *Guardian*, mines this object for its mnemonic powers, exposing the gaps in historical knowledge about the fate of Franklin’s crew and conveying the rationale behind the actions of the novel’s fictional protagonists, an English woman called Fay and a Canadian man called Nelson. Its key question is ‘When and how did the timepiece return to Britain, is it evidence that somebody survived the disaster, or of a crime – even murder?’ (O’Loughlin, 2017, p. 1). The mystery of the portable naval object orients our reading of the novel along the axes of travel and navigation, of commerce and conquest, of thought and affect, which interconnect the lives of Arctic and Antarctic explorers and (missing) fictional characters in a narrative fabric of ‘stories

converging at the poles, like meridians. Or like the meshes of a net' (O'Loughlin, 2017, p. 407).

The uncertainties surrounding the Victorian chronometer are part of the archive of tropes O'Loughlin employs to highlight the enduring appeal and agency of the polar regions across time. For example, at the novel's outset in Van Diemen's Land, Franklin's niece Sophia ruminates on John Ross's exploratory feats in the Arctic: 'The Nimrod islands. Aurora. Cold beauty that waited, shrouded from knowledge, in secret vaults of ice' (O'Loughlin, 2017, p. 33). This sentiment is refracted in Fay's getting blinded by the snow in Inuvik more than a century later: 'A haze had softened the stars and now Fay could see neither coast nor horizon; she couldn't tell where the sky met the frozen sea or where the sea met the frozen land' (O'Loughlin, 2017, p. 52). Prompted by the elements, her disorientation cues a later reminder of the Weather War during WWII, when German navy 'inserted secret teams of weathermen into the fjords of eastern Greenland to transmit weather reports for as long as they could' (O'Loughlin, 2017, p. 141). Contiguous with the fragmentary nature of the narrative, the novel's weather patterns heave into view the polar environments as a scene of human-nonhuman encounters that call into question the anthropocentric accounts of historical experience, echoing anthropologist Tim Ingold's contention that 'weathering is what things and persons undergo on exposure to the elements' (Ingold, 2015, p. 71). If we accept 'weathering' as a material-semiotic drive of eco-memory, the novel's visceral description of Oates's experience on Ross Island in Antarctica similarly highlights the confounding effect of the environment on the living body:

It was the sky above that shocked him. The sea ice, the western mountains, the island where he stood, were shades of black and grey and pastel, like a half-remembered dream. But the abyss above him blazed with life and business. Far above, a band of nacreous cloud caught the last of the year's civil twilight, a gauzy patch of iridescent pinks and mauves. The stars burned so fiercely that it seemed to Oates if he held his breath he would hear them. They shone so hard that he wanted to duck (O'Loughlin, 2017, p. 207).

As suggested in the episode, it is the co-extensiveness of landscape and weather that tropes polar places for the sublime, an idea foregrounded in the novel's two epigraphs, the first of which quotes Wallace Stevens's poem *The Snow Man*, from which the novel derives its title, and the second, which reads 'One cannot map the sublime, or give it place names', cites from Chauncey C. Loomis's book, *Weird and Tragic Shores*, which narrates Charles Francis Hall's several attempts to find the survivors of Franklin's expedition. Both epigraphs convey a concern for place memory, visually reinforced by the deployment of two maps of the Canadian North. This intermedial crossover, which functions as a framing device as much as an architectonic principle of meaning, invites us to consider what the novel has to say about representational practices, territorial values, and 'maps as agents of space-discipline' (Krotz, 2018, p. 24) in the mnemonic dialectic of show and tell.

The narrative threads, which connect the travails of historical adventurers to those of the protagonists' relatives – Fay's grandfather and Nelson's geographer brother –, unfold along the material-semiotic lines of the polar regions. What assembles them together is the figure of the chronometer, which, through its metonymic links to polar places and explorers, establishes a line of descent encapsulated in the idea of the mysterious Room 38, a secret organisation, whose cartographic activities since the nineteenth century have involved navigation, exploration, land surveillance, and radar detection, among others. Cropping up at different sites and sightings along the Greenwich meridian, the chronometer materialises a geopolitical genealogy, where everyone following in the footsteps of Franklin's expedition becomes an heir to the imperatives of industrial modernity and partners in the narrative of eco-memory. Thus Crozier writes to James Ross about having built message cairns on Beechey Island in 1848 and in 1851 the American explorer Elisha Kent Kane locates them and takes hold of the timepiece, which he then shows to the search expedition led by William Kennedy and Ensign Bellot. In 1871, the chronometer is passed on to Hall and is saved from perishing by Taqulittuq, an Inuit woman, whose husband accompanies the American in his search for Franklin's remains. Next, the object resurfaces during Scott's 1911 expedition to Antarctica,

where Meares tells Oates that ‘It was lent to Douglas Mawson – the Australian geologist who was here two years back with Shackleton’s lot’ (O’Loughlin, 2017, p. 215). In turn, Meares entrusts the chronometer to Amundsen on his voyage to Siberia in 1919 and in 1932 reclaims it in Arctic Canada from a man deemed to be Albert Johnson, the notorious criminal. Given the geography of the chronometer’s travelling, it is hardly surprising that Fay remarks to Nelson about the web of circumpolar links: ‘And if you look at the maps of the Arctic, and Antarctic too, you’ll see the same people’s names repeated over and over again. And most of those people were connected to each other’ (O’Loughlin, 2017, p. 225). In fact, Nelson’s missing brother, who had ‘once passed a winter at Alert, the most northerly inhabited place on the planet, [and] had spent several seasons in Antarctica’ (O’Loughlin, 2017, p. 293), and Fay’s grandfather, who worked on the DEW lines in the 1950s and was the last to own the ‘old brass carriage clock’ (O’Loughlin, 2017, p. 445), are inextricably part of the same record of people who had died or disappeared in the Arctic and Antarctic. Bound to the narrative arc of the Anthropocene, the novel’s geographical spread of human activity patterns the global distribution of topographical alterations and social inscriptions of meaning that have reshaped the material composition of circumpolar life. In this way the novel’s chronometer performs important diagnostic work as regards the value and status of environmental posterity in the era of anthropogenic climate change.

Both a material object and cultural signifier, the chronometer magnifies the catachrestic slips of reference through which the Arctic and Antarctic spaces escape cartographic appropriation. The story of Bellot Strait is an interesting example of the novel’s ‘phantom places’. Discovered by Kennedy, a Canadian fur trader who led an expedition searching for Franklin, and named after his ship’s French cartographer, the existence of the place is contested by Bellot himself: ‘But why would Kennedy insist on seeing something that was not there?’ (O’Loughlin, 2017, p. 110). In fact, his learning of Kennedy’s reliance on the occult in the discovery of the strait – the captain followed an Irish girl’s map-sketch reproduced in the novel – may have contributed to Bellot’s own disappearance in the region of Lancaster Sound: ‘He walked

away from the snow-house they were building on the floe and was not seen again' (O'Loughlin, 2017, p. 126). Fay's grandfather, too, bears accounts of phantom places: 'Frobisher Bay had been lost for three hundred years before Charles Hall rediscovered it. Whereas Elizabeth Island, after Drake left it, had never been seen again at all' (O'Loughlin, 2017, p. 430). The sailors' name for such phantom lands, we learn, is *Cape Flyaway* (O'Loughlin, 2017, p. 323), reinforcing the novel's thinking about the sublime as a material-semiotic agency of place and ice as 'a keeper of the Earth's secrets' (Dodds, 2018, p. 49).

O'Loughlin's critique of Western technologies of mapping in *Minds of Winter* accords with his figuring of different modes of mobility as embodying man's relationship with the environment and the living technologies of care. Ingold's theorising about *lines* as an ethic of movement is helpful here. He distinguishes between *traces*, enduring marks left on surfaces 'by a continuous movement', and *threads*, filaments 'suspended between points in three-dimensional space, which compose the world as texture or tissue, a *meshwork* rather than a *route*' (Ingold, 2016, p. 42). This dialectic has a material-semiotic basis in that the living bodies are conceived as stitched into 'the texture of the lifeworld' (Ingold, 2011, p. 70), taking their bearings from a nascent environment that is 'continually coming into being through processes of growth and movement' (Ingold, 2015, p. 14). In other words, life itself amounts to 'a hive of activity' (Ingold, 2011, p. 17) that is ever spilling out into the world rather than spreading onto its surface. Human sentience is understood as coextensive with the sentience of the world. For material ecocriticism, this chiasmic relation defines man as a mode of dwelling because 'the world we inhabit is never complete but continually surpassing itself' (Ingold, 2011, p. 13), movement may be thought of as an ontological condition that awakens us to the dialectic of surface and depth, occupation and inhabitation, places and paths, intention and attention (Ingold, 2015, p. 133). Conceived as continuous motion, life itself partakes of the sublime and veers off the cartographic grid.

As organising structures of movement and understanding, *traces* and *threads* show us how the cartographic medium becomes coterminous with the Anthropocene ethos of occupation,

exploitation, and information. In Ingold's terms, the novel's maps, which depict the explorers' itineraries, enact the ethic of *transport* – a goal-oriented activity that enables bodily mobility within a grid of destination points – as opposed to *wayfaring*, which 'is the most fundamental mode by which living beings, both human and non-human, inhabit the earth' (Ingold, 2016, p. 83). By implication, then, the ethic of *transport*, which underlies territorial appropriation and its attendant failures, is oblivious to how the movable subject as 'a vehicular unit' (Ingold 2011, p. 43) differs from a walking 'footslogger' (Ingold, 2011, p. 44).

The conceptual perspective of the 'ontology of the line' (Ingold, 2015, p. 16) runs through *Minds of Winter* by measuring Western modes of travel against those of the Indigenous peoples of the Arctic. As Klaus Dodds observes in *Ice*, 'Inuit trails and tracks are not marked in the same way as roads, railways and airports. They are not permanent or semi-permanent features akin to modern infrastructure; rather, the routes are often seasonal, subtle to outsiders' (2018, p. 136). For Western explorers, by contrast, polar places offer 'a cornucopia of awe, pleasure, loathing, fear and revulsion' (Dodds, 2018, p. 11), subject to the seemingly superior endurance of the human spirit. Erected by the explorers as monuments of success and failure, the stone cairns are a good example of the techniques of surveillance through which Western cartography gets hold of the Arctic land. Traces of material interest, they construct knowledge that produces space through occupation rather than inhabitation and are thus reminiscent of the colonial appropriation of Indigenous land. Through their contiguity with the chronometer, the novel's cairns work in tandem with Western cartography, which transforms weathering *threads* into scientific *traces*, i.e. substance into surface, thus converting the travellers into material cargo fit or unfit for *transport*. Unlike the cairns, by contrast, the *inuksuks*² are conceptually linked to the ethic of *wayfaring* as practised by the Inuit. This is highlighted in the chapter narrated by Ipiirviq, the Inuk who helps Hall search for Franklin's expedition. Despite his own reluctance, Ipiirviq

² *Inuksuks* are stone markers built by the Inuit to guide travellers and hunters through the Arctic landscape.

accompanies Hall to Lok's Land, a taboo place, where Hall thinks he has discovered Frobisher's cairn. The narrative brings to our eyes a clash of perspectives as resulting from opposing ways of relating to the land. Where Hall sees *traces* of the explorer's route, Ipiirviq sees *threads* in a meshwork of lines as made manifest in the figure of the *inuksuk*, a remnant of ancestral *wayfaring*:

But it seemed to me that the stones were set together more loosely than the cairns built by white sailors, and when I moved around to the seaward side, to the edge of the cliff itself, the stones no longer resembled a cross but rather the figure of a human, arms outstretched to the sea. I thought of inuksuks, the stone statues built by our people as markers or decoys, and I remembered the story of the strangers who had all been taken by the ice. Or perhaps not all: someone had built this stone thing to mourn for them (O'Loughlin, 2017, p. 153).

Ipiirviq's thinking is consonant with his own setting up of an *inuksuk* to mark his son's burial place: 'I made a small inuksuk, like a stone child, to stand over his grave' (O'Loughlin, 2017, p. 156). Reminiscent of Watts's reasoning about Place-Thought, the novel's *inuksuks* encapsulate the ontological reciprocity between humans and the land through which they move, reinforcing the ecological link between place and memory in the lived experience of bodies and their ecosystems. Reading the Arctic landscape as a source of his own being, Ipiirviq, unlike Hall and most Western explorers, who only recognise cartographic surfaces, sees spatial depth and agency in the movement of the elements: 'When the mist scatters the moonlight, or when there is no moon and only the light of the stars or the aurora, every hummock and ridge in the ice becomes a stalking bear, and indeed might conceal one' (O'Loughlin, 2017, p. 171). Like the sentient beings and the elements, the *inuksuks* are part of an affective geography, signs of an ecumenical practice, which the novel opposes to the act of surveying associated with Western cartography. The lines of grief that crosshatch the lines of Inuit *wayfaring* in the Arctic are shown to bring space and time together in an environmental meshwork, which is also a place of embodied eco-memory that the European explorers fail to grasp.

Both Fay and Nelson, the novel's fictional agents of remembering, recognise the meshwork composition of the Arctic and Antarctic worlds, but their attempts to understand what happened to their family members run aground when confronted with the power infrastructure that maintains the ethic of *transport* in the Arctic under the guise of scientific research, national security, and capitalist trade. By showing how the Western practices of mapping contributed to the physical and cognitive appropriation of polar regions in the global political rivalry over resource extraction, *Minds of Winter* impels us to consider the connections between wasted lives and the production of waste as a mechanism of historical inscription. When in 1851 Elisha Kent Kane recalls the discovery 'of three graves on the beach, marked with the names of men of *Erebus* and *Terror*' (O'Loughlin, 2017, pp. 97–98), his account of the heroism of Franklin's crew slides over the ecological implications of the discovery of two cairns, one of which is made of empty food tins, 'some six or seven hundred of them, filled with gravel and arranged in a pyramid' (O'Loughlin, 2017, p. 98). Congealed in the legacy of the find is the sense of loss, which witnesses the mutual imbrication of human and non-human activity in the expanded history of polar expeditions. The polluting trail of exploratory work on the terrain of bodies human and nonhuman here culminates in the record of death past and future, making visible the haunting character of the ecological afterlife produced by industrial ingestion and excretion. The material imprint of post-war geopolitics in the Canadian North troubles Fay's grandfather too as he surveys the DEW lines in the 1950s: 'The wooden telephone poles, which carried phone lines to the airstrip and construction camp and to the RCMP post in the nearby Inuvialuit settlement, groaned and tutted like old men and women enjoying their own slow decay' (O'Loughlin, 2017, p. 439). Living technologies of surveillance, as the simile seems to suggest, these means of communication are routed through social geographies that turn the Arctic and the Antarctic into a testing ground for anthropocentric activity, the moral upshot of which is the ecological degradation and ultimate disappearance of both humans and places.

Conclusion

In the interpretative arc of the Anthropocene, the mystery of the chronometer in *Minds of Winter* amplifies the material-semiotic significance of the polar regions both in Canadian and global geo-imaginaries in a way that prompts several concluding remarks. As a figure of the novel's cognitive footing and carbon footprint, the chronometer conflates human and nonhuman agencies, bringing into view the epistemic legacy of the colonial maps in the destruction of local Indigenous ecologies and the ecological ramifications of industrial modernity's extractive economy. Framed as a means of remembrance, the timepiece also magnifies the relational character of eco-memory through which *Minds of Winter* rethinks the ideological parameters of the Canadian discourse on the North, calling attention to the conceptual slippages between accounts of national history, on the one hand, and the figuring of place memory, on the other. Read in light of the ethical dialectic of *transport/wayfaring* underlying the novel's view of subjectivity, the fate of the novel's protagonists ultimately seems to suggest that humans, too, are but one of the many events comprising the environment's multiple scales of creation, care, and collapse. The vibrancy of the land far exceeds the vigour of the novel's historical adventurers, whose legacy, as O'Loughlin shows us, has irretrievably transformed the morphology of polar landscapes and increased the precarity of their geologic future.

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