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Nature Writing as Contact Zone

*Western and Inuit Perspectives on Landscape and Animals
in Barry Lopez's Arctic Dreams*

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Introduction: *Arctic Dreams* and the Arctic as contact zone

Preamble

8 January 2016 geologists published their verdict in *Science*: stratigraphic signatures support the formalization of the Anthropocene as a geological epoch (Waters et al. 137). Although the question of whether or not to go ahead with the formalization is yet to be decided, due to the implications this will have “well beyond the geological community” (Waters et al. 137), it seems quite possible that we have unwittingly entered the Anthropocene: an epoch in which mankind has become “a major geological force” (Crutzen and Stoermer 18).¹ Some debate still continues as to what time period should define the beginning of the Anthropocene. But while the time of the emergence of human agricultural societies and the start of the industrial revolution have both been proposed, influential geologists now argue that the mid-twentieth century should mark the inception of this epoch (Crutzen and Steffen 253; Waters et al. 137).

With this definition of the Anthropocene we have been offered a scientific term for what literary scholar and ecocritic Lawrence Buell in 2001 described as a degree of modification of nature so profound that truly pristine physical environments are no longer to be found (*Writing* 3). And we have defined ourselves to be the cause of environmental changes of unpredictable and unprecedented scales and durability. Like in the Darwinian revolution of the mid-nineteenth century, science once again produces the evidence and the concepts that change our perception of ourselves as human beings in interaction with the world around us. And once again it does so by forcing us to look beyond our distinctly human scales of time and dimension. As we recognize that we are a determining factor causing long-time changes in the earth’s geomorphological makeup, we naturally presume that we should somehow be in control of, or at least have an inkling about precisely *how*, we are altering the very conditions of our existence. This insight, however, escapes us. The world is not really

¹ While the geologists of the Anthropocene Working Group in August 2016 voted in favor of formally designating the present as part of the geological epoch of ‘the Anthropocene,’ neither the International Commission on Stratigraphy nor the International Union of Geological Sciences has of yet officially approved the Anthropocene as “a recognized subdivision of geological time” (“Anthropocene”; c.f. Carrington; Zalasiewicz et al.; Zalasiewicz, Waters and Head).

what we thought it was, and neither are we. Paradoxically, our rigid classifications of seemingly static geological pasts have led us into redefinitions of the present and into exposure of the dynamic nature of the very ground beneath our feet. A hundred and fifty years after Darwin, we find within a range of scientific and scholarly disciplines repeated assertions of human entanglement within the natural world, produced by a science that has its basis in the presumption of the separation of mind and matter, the human and the natural world. The Anthropocene's geological point of view not only offers us an unusual context from which to regard our life of earth, but also necessitates a reexamination of our place in the world and our attempts to know it.

As humans harness the energies and substances from past geological epochs and release its byproducts into the atmosphere, the atmosphere reacts in new and unprecedented ways. Among the environmental and cultural changes that ensue, two are of particular relevance to the Arctic. One is the way seemingly untouched tracts of nature become "all the more crucial both as concept and as term of value" (Buell *Writing* 5). In this context the Arctic is in a league of its own. Consisting mainly of frozen tundra, sea ice, and glaciers, it constitutes a whole region whose landscapes are literally under the threat of disappearance. Against this threat, the cultural and symbolic value of the Arctic changes.² The recent boom in scholarly interest in the Arctic, as well as the resulting advancement of historical and contemporary narratives about the region, both testify to this fact. From functioning in earlier centuries in various ways as a symbolical marker of the boundary of the world known to mankind, the Arctic today reminds us of the potentially frightening fact that the reach of mankind knows no limits.

The second implication of the environmental and cultural challenges of the Anthropocene is a critique of the dominance and dependence on one knowledge system. This critique originates from indigenous peoples as well as from natural scientists and environmentalists, all of whom point out that "modern Western scientific approaches, although important, are not enough to resolve complex environmental problems" (Barret 179). Contemporary environmental problems are particularly acute in the Arctic, where long-range transboundary pollution and climate change cause profound alterations in the physical environment and novel restrictions to traditional ways of life. These go hand in hand with the

² This point has also been made by Benjamin Morgan in his recent article "After the Arctic Sublime."

radical changes in societal structures and ways of interacting with the environment that increasingly strong modernization processes bring to indigenous communities. Pointing out how modern Western culture's scientific approach to the world so far has been unable to meet these challenges (in anything but the most superficial ways), M. J. Barret argues that we have much to gain by bringing in other knowledge systems that may challenge our "reductionist approach to understanding ecological systems" and our understanding of humans as "above and separate from natural systems" (179). What is needed at this point in time, she claims, is a new metaphorical space that allows the kind of epistemological diversity necessary to improve the complex and difficult socio-ecological decision-making required in response to the current ecological challenges (Barret 179-80). The creation of this kind of metaphorical space entails a broadening of the perceptual frameworks through which we come to know the world. This inclusive broadening is necessitated precisely by the disturbing implications of the conceptualization of the Anthropocene.

My dissertation investigates how Barry Lopez's now classic text of American nature writing, *Arctic Dreams: Imagination and Desire in a Northern Landscape* (1986), responds to the challenges posed by the environmental threat to the North American Arctic, and to the growing knowledge of distinctly different culturally determined ways of perceiving this natural environment. As I will demonstrate in the following, the text reacts to this threat by including a range of different perceptual frames from within and beyond Western science that complicate our ideas about the Arctic.

Interestingly, *Arctic Dreams* offered this response *before* the evidence of global climate change and the possible re-definition of the present in terms of the Anthropocene. The 1980s were nevertheless a time in which the threat of further development of oil and other extractive industries caused Lopez to be deeply concerned about the deterioration of arctic landscapes and ecosystems. This concern is what causes him, towards the end of his arctic contemplations, to pose the question: "*what does the nature of the heroic become, once the landscape is threatened?*" (AD 390, italics mine). Almost two centuries after the halcyon days of arctic exploration, in which brave men entered an unknown Arctic that seemed to mark the limits of human enterprise, Lopez's question implies that we need a new way of understanding the concept of heroism. At present, reflecting on Lopez's question leads one to nearly drown in the flood of changing cultural significations brought on by a melting Arctic. However, even in 1986 the Arctic no longer represented those unrelenting and unchanging forces of nature against which the bravest of men could test their physical and mental powers.

In a late twentieth- as well as in an early twenty-first-century environmental perspective, such an attitude towards the natural world seems less heroic than environmentally shortsighted and egotistical.³ Similar to the way in which literary Romantics in the nineteenth century called for the heroics of the poet to meet the natural world in new ways, Lopez calls for yet another form of heroics in meetings with the Arctic. As we shall see in the following, the heroism to which Lopez appeals demands a new kind of courage: the courage to challenge not the natural forces of the vast and still undomesticated landscapes of the Arctic, but the perceptions and the exploitative forces of modernity.

At the time Lopez wrote *Arctic Dreams*, a cultural critique of Cartesian epistemology was already underway. In her 1987 *The Flight to Objectivity*, Susan Bordo claimed the Cartesian worldview to be an outdated one: not a timeless universal but a historically and culturally determined perceptual frame whose brainchild, modern science, was increasingly recognized to have lead modern society towards an environmental crisis of global proportions (2).⁴ A similar sense of crisis was what spurred the rise of the environmental movement in the 1970s. And, as Jen Hill has pointed out, it is at the confluence of the environmental movement and the “renaissance in American nature writing in the 1980s” (Hill "Barry Lopez" 130) that *Arctic Dreams* emerges.

In a postmodern fashion typical of its time, Lopez’s text partakes in the challenge to Cartesian thinking from within a modern Western perceptual framework. It does so partly through a conservationist ideological stance characteristic of this early – or ‘first wave’ – nature writing, and partly through the activation and challenging of a set of perceptual frameworks implicit in the genres from which this text borrows. The latter includes the narratives of nineteenth-century arctic exploration with their peculiar combination of scientific and Romantic aesthetic perspectives, the narratives of modern science, and Inuit narratives of the land and its animals.

³ This issue is discussed in more detail in Chapter Eight: “Towards a new arctic sublime.”

⁴ As we shall see in Chapter Three, Val Plumwood would later, in her book *Environmental Culture: The Ecological Crisis of Reason* (2002), expand and develop this critique of Cartesianism and Western culture’s reliance on Reason.

Perceptual frames of understanding

Lopez employs a range of different perceptual frames in order to bring us closer to an understanding of the environmental and cultural complexity of arctic landscapes and their animals. These different perceptual frames exist in the text as distinct and recognizable points of view, discourses and/or forms of writing. Together these account for the attractive and creative, sometimes contradictory, ‘messiness’ of *Arctic Dreams*.⁵ My thesis concerns itself with how these different frames are activated and function in the text, and how their juxtaposition and interaction generate new and perhaps more profound understandings of the arctic landscapes the text portrays. I will in my analysis use ‘perceptual frames’ as a collective term to describe the different views on arctic natural environments that *Arctic Dreams* presents, whether these be represented by individual (or a group of individuals’) points of view, different genres, or different epistemological frameworks. All of these frames imply more or less implicit personal and/or formalized boundaries for what is sensible, thinkable, and knowable. Similarly to conceptual frames, perceptual frames set the conditions for the way things are “regarded, understood, or interpreted” (“Perception”). Such frames determine the construction of meaning, and from each particular frame interpretations proceed more or less automatically.

By using the term ‘perceptual frames’ instead of ‘conceptual frames,’ I wish to avoid the latter’s emphasis on the mental and abstract presentation of things and ideas, and to recognize the way sensory experience is involved in how we come to know the world. With this inclusion, the concept of knowledge extends beyond the rational to include sensorial and/or intuitive understandings and insights that are generally ignored in the modern scientific paradigm, but that indigenous peoples acknowledge as legitimate forms of knowledge. Furthermore, unlike “the more rarified domain of conceptual thought” (Eagleton 13), perception and sensation are also deeply involved in notions of the aesthetic, which is a central topic in my investigations of Lopez’s new forms of representation of the Arctic.

But what do I mean by the aesthetic? As Wolfgang Iser has pointed out, the aesthetic is a polysemiotic concept with a long catalogue of contrary definitions. This creates a situation in which the aesthetic sometimes concerns “the sensuous, sometimes the beautiful,

⁵ Thanks to Dianne Chisholm for vocalizing this as a characteristic of the text. This greatly helped me to conceptualize my work with the contact zone in which these different perceptual frames meet.

sometimes nature, sometimes art, sometimes perception, sometimes judgement, sometimes knowledge,” leaving the term itself to oscillate between meaning “sensuous, pleasurable, artistic, illusory, fictional, poetic, virtual, playful, unobligating, and so on” (Welsch 8, 9). These different definitions have no one thing in common, but constitute a “family” in which each definition or use of the concept has semantic “overlaps, links and transitions” with other definitions and uses (Welsch 9). My work on *Arctic Dreams* will involve three of these definitions of the aesthetic (the same three Welsch has identified as “the most common semantic areas” of the term [35]). In comparisons between the scientific and aesthetic forms of representations present within *Arctic Dreams*, my use of the term aesthetic will often refer to the practices of the fine arts; the aesthetic as “the *artistic*” (Welsch 35). Of greater significance to my work, however, is a conception of the aesthetic that refers to (and is more or less synonymous with) the sensuous; the aesthetic as “the *aesthetic*” (Welsch 35; cf. Eagleton 13). The aesthetic in this case involves a discourse born of the body; one that concerns “the business of affections and aversions, ... how the world strikes the body on its sensory surfaces,” and “takes root in the gaze and guts” (Eagleton 13). Such a conception serves my analysis of Lopez’s phenomenological landscape depictions well. The third definition I make use of is the aesthetic as associated with the aesthetics of the “*callistic-sublime*” (Welsch 35). The *callistic-sublime* represents an “elevatory” and “reconciliative” perspective (Welsch 13) that renders aesthetic things that are in their diversity “wonderfully joined [or] brought into harmony” (Welsch 12). It is exemplified in the nineteenth-century natural sublime; an aesthetics which exerted a powerful influence on the Romantic literary tradition, and whose expressions we can encounter even in arctic exploration narratives from this time period. Because I find Lopez’s *Arctic Dreams* to simultaneously employ and rework this century-old aesthetics, I devote the final chapter of my dissertation to a discussion of how the aesthetics of the sublime is expressed in this text.

As discussions in Chapters Seven and Eight will show, different aesthetic modes of expression represent different perceptual frames that reveal as much as they hide. In this they resemble the practices of modern science. (Indeed, after Bordo’s critical discussions of Cartesian objectivity, modern science itself emerges as a limited and/or limiting perceptual frame with a distinct historical origin [see Chapter One]). In recognition of this, my work on *Arctic Dreams* will also consider the aesthetic in terms of what Jacques Rancière has described as the “distribution of the sensible” (12). The comparison I make between science and aesthetics in terms of their status as perceptual frames is not meant to downplay the

differences between the two in terms of fields of investigation and forms of expression. To the contrary, one of these differences – the difference in the kind of language that is employed – will be of major concern in the following analysis of *Arctic Dreams*.

National languages can, of course, also be considered different ‘distributions of the sensible.’ Anthropologists working with indigenous peoples in the Arctic (as well as in other parts of the world) emphasize how important an intimate knowledge of the indigenous language is to the understanding of the indigenous worldview. Lopez in a similar manner acknowledges the power of the indigenous language to bring forth details of the natural environment that to the non-native speaker will remain beyond notice (*AD* 276). Although my analysis of *Arctic Dreams* aims to explain how different perceptual frames, including Inuit ontologies and epistemologies, are brought into Lopez’s descriptions of the Arctic, my ignorance of Inuit languages sadly stops me from including this aspect of language into my work. What my analysis will concern itself with is the way in which different *forms* of language, such as the scientific and the poetic, shape our interpretations of the world.

Russian formalist Victor Shklovsky has theorized some of the differences in language forms and their effects. In his 1929 “Art as Device,” he argues that the language of poetry and art is distinctly different from the language of prose. The latter includes both the language of the everyday and the language of science. Indeed, Shklovsky argues, one should think of the language of poetry and the language of prose as representing different modes of perception that do not coincide (2-4). The practical language of prose serves the effortless recognition and categorization of things and has the “abstractive character of thought” suggestive of “the method of algebra” (Shklovsky 5). Through the application of this form of language,

objects are grasped spatially, in the blink of an eye. We do not see them, we merely recognize them by their primary characteristics. The object passes before us, as if it were prepackaged. We know that it exists because of its position in space, but we see only its surface. (Shklovsky 5)

Because the language of prose allows a quick and automatized perception of objects, Shklovsky here claims, it bars us from becoming truly conscious of the characteristics of these objects. In this sense the practical language of prose causes the objects it describes to “fade[] away” before the observer (Shklovsky 5).

In contradistinction to the language of prose, the language of art and poetry impedes instant recognition of the objects presented. By “enstranging” or *defamiliarizing* objects and

“complicating form,” Shklovsky writes, “the device of art makes perception long and ‘laborious’” in order to lead us towards fuller, more complex, and often *different* visions of the object (6). This effect is achieved by applying a “laborious” or “impeding language” that distorts the economical and easily understood language of everyday speech (Shklovsky 13)

In *Arctic Dreams*, Lopez combines the language of prose with the language of poetry, the scientific with the aesthetic. Nineteenth-century explorers in the Arctic also constructed their narratives in the languages of both science and aesthetics (c.f. MacLaren; Morgan). However, in *Arctic Dreams* the combination of these two forms of language is particularly intricate and pervasive, and creates a new form of aesthetics that challenges ingrained Western perceptions of the natural environment through a certain form of defamiliarization. In one sense, we can ascribe this defamiliarization to the unusual practice precisely of combining the language of science and poetry within single descriptions of natural phenomena, and argue that this in itself represents a way of “seeing things out of their usual context” (Shklovsky 9). In another sense, the essayistic nature of *Arctic Dreams* allows a constant shifting between perceptual frames that effectively creates another – and perhaps more profound – form of defamiliarization to emerge in the text: a multifaceted view of the world in which the limitations of our own culturally encoded perceptual frameworks become visible.

Nature writing: ‘inward swerve’ or ‘dual accountability’?

In order to understand how and why nature writing can incorporate the rich inclusion of genres and perceptual frames we find to be at play within *Arctic Dreams*, we must take a closer look at the characteristics of the genre. Nature writing has existed “as a recognizable and distinct tradition in English prose” for more than two hundred years (Finch and Elder 19). It is an essayistic form of writing characterized by a high degree of attentiveness towards the natural world (Finch and Elder 23). The genre enjoyed increased significance and popularity after World War II, just as the world – according to the geologists – entered the Anthropocene. Like other forms of what ecocritic Lawrence Buell in 1995 defined as “environmental texts,” texts of nature writing are characterized by the fact that they present the nonhuman environment “*not merely as a framing device but as a presence that begins to*

suggest that human history is implicated in natural history” (*Environmental* 7).⁶ Human interference in the processes of the natural environment is generally regarded in terms of ethical problems, and our accountability towards the environment and our fellow non-human creatures becomes part of the texts’ concern (Buell *Environmental* 7).

Thus in nature writing an “intense and self-conscious awareness of nature” is born from a felt “loss of integration between society and nature” (Finch and Elder 26). As a range of scholars on Romanticism have emphasized, this sense of loss of integration with nature, and a corresponding fear in the face of increasing evidence of environmental destruction, was central also to the development of the Romantic movement in literature. In America, major proponents of Romantic Transcendentalism such as Ralph Waldo Emerson and Henry David Thoreau were nature writers. The impact this form of writing has had on American culture is apparent in the booming interest in ecocriticism of the past few decades. Today Emerson’s *Nature* and Thoreau’s *Walden* are obvious parts of any university curriculum in nature writing, and the study of the literary works of these authors have developed into rich and proliferous scholarly fields in their own right.

Nature writing is a form of nonfiction influenced by scientific theories, concepts and findings. In more contemporary texts these may originate from a vast field of natural sciences, ranging from genetics, molecular biology, cognitive theory, and ecology to plate tectonics and quantum physics (Finch and Elder 22). The inclusion of such scientific elements signals the belief of nature writers that understanding physical and biological processes is of great importance to the development of a mature relationship with the world (Finch and Elder 25). But the perspective of the nature writer differs from that of the professional scientist in that the “environmental proficiency” of the nature writer is one that lacks the scientists’ absolute mastery of data and theory, and instead aims to communicate knowledge about natural phenomena “in a shareable form” (Buell *Environmental* 96, 97). This means presenting physical details or scientific facts in ways that are “marked by a personal voice and a concern for literary values” (Finch and Elder 22). This generalist and more personal approach to representations of the natural world explains the tendency of nature writers to “defiantly”

⁶ In line with developments in ‘second wave’ ecocriticism, Buell later regretted this definition and argued that it might be “more productive to think inclusively of environmentality as a property of any text” (*Future* 25). I, however, find Buell’s early definition useful to my work on *Arctic Dreams* because this is an environmental text precisely in the sense that it is *about* the natural environment and deeply engaged with the entanglements of human and natural history.

embrace the term “natural history,” even as they rely on knowledge produced by modern, highly specialized and technologically advanced science (Finch and Elder 22).

According to American studies scholar Don Scheese, nature writing is further distinguished by the way it typically involves a “first-person, nonfiction account of an exploration, both physical (outward) and mental (inward), of a predominantly nonhuman environment, as the protagonist follows the spatial movement of pastoralism from civilization to nature” (6). In their textual manifestations, these explorations often take the form of essayistic “excursions”; “walks through landscapes of associations” that tend to move from “a closely observed [natural] phenomenon” and onto open-ended reflections on the extended and personal meaning of this phenomenon (Finch and Elder 24). Such essayistic excursions have allowed nature writers to playfully ramble beyond “dominant literary and scientific models,” to return, as Finch and Elder put it, “with their testimony about how human beings respond to what is nonhuman, and how individuals and society may achieve more significant and awarding integration with the earth that sustains them” (Finch and Elder 28).

Personal reflections on the meaning of natural phenomena are part of a modern form of nature writing developed in America. Finch and Elder identify Thoreau as the first to bring to the genre a consciousness of how even the most painstaking ‘naturalist’ study of “nonhuman nature” must inevitably “objectify and abstract it” (23). Unlike the texts of his forerunners on the other side of the Atlantic (like Gilbert White), Thoreau’s writings do not convey a sense of being “unconsciously a part of the natural order he beheld” (Finch and Elder 23). Rather, as ecocritic Scott Slovic’s analysis of Thoreau’s *Journal* reveals, Thoreau’s study of nature was simultaneously a study of the self, and both were important to the development of a more profound understanding of the Truth of the world. Slovic further points to a development in which nature writers following Thoreau have become increasingly more involved in the simultaneous study of the physical world *and* “their own psychological responses” to this world (*Seeking* 137). The cause of this development he claims to lie in the idea that an awareness of such psychological responses is a necessary condition for a turn towards more respectful, ecologically grounded and responsible human attitudes towards the natural world. Towards the end of the second millennium the development of this form of awareness had, according to Slovic, a “sense of timeliness, of urgency” (*Seeking* 138).

Not all critics, however, find nature writing’s allegiance with ecology and focus on the writer’s psychological responses to nature valuable. In *The Truth of Ecology* (2003), literary scholar Dana Phillips scolds nature writers and ecocritics for invoking the science of ecology

as validation for their own philosophical point of view, thereby associating the ecological sciences with ideas of “balance, harmony, unity, purity, health, and economy” that these sciences have in fact abandoned long ago (42). Indeed, Phillip claims, in much nature writing and ecocriticism ecology is figured as a form of science that almost mystically binds together “not only all of the sciences, but nature and culture as well” (45). Fronting a close relationship to the ecological sciences, he concludes, is nature writers’ and ecocritics’ way of giving scientific legitimacy to a form of writing that is not really concerned with nature.

As explanation for his provocative claim that nature writing is not really about nature, Phillips proposes that the ultimate goal of the nature writer is not to give a scientifically and ecologically correct depiction of nature, but to reach a state of epiphany: “a state of theological, epistemological, and/or psychosexual clarity and intensity during which the self, the writer’s inner nature, and everything outside it, in the natural world ... are experienced as one thing” (Phillips 202). This moment of transcendently experienced unity with the natural world represents the height of poetic vision in many texts of nature writing. Thus “at critical junctures,” Phillips argues, nature writing “swerves inward, erasing the world it has been at such pains to describe, and abandoning the physical for the metaphysical” (230). Rather than seeing nature writing as a simultaneous study of the physical world and the writer’s psychological response to it, Phillips reads its tendency to value transcendental epiphanies about the natural world at the expense of the natural world itself as evidence that nature writing is *truly* about an “inner” and “private” response to nature (210). This might not have been a problem, had not nature writers (of a Romantic bent) tended to believe this state of epiphany to result from a form of direct and ‘true’ contact with nature that would be blocked by too much accurate scientific knowledge about it. Because he finds that nature writers do believe this, Phillips can present the curious observation that “ignorance of nature” is “often represented by American nature writers as an advantage, if not as something of a virtue” (212).

Ascribing to nature writers a distinctly anti-scientific idea of nature experience that resonates well with their alleged ‘fuzzy’ understanding of ecology, Phillips goes on to question the entire history of nature writing in light of this type of anti-intellectualism (217). He finds the outmodedness of this tradition exemplified by Thomas J. Lyon’s celebration of the “absolute durability of certain subject matters, themes and affirmations” in nature writing

(Lyon 1).⁷ Lyon's argument is that because early American nature writers like Thoreau were updated on recent scientific theories (he mentions Darwin's theory of evolution as an example), the thematic focus on "re-enter[ing]" the natural world and on the "allegiance ... with the organic, personal, and sacred" has remained unchanged since the time of the inception of the genre (4). As neither Romanticism nor Realism seems to have had profound enough influence to generate identifiable "periods" of the genre, Lyon makes the swiping statement that "currents of intellectual fashion and even deep philosophical change, in the culture at large, seem hardly to have disturbed it" (1). Less enthusiastic about the autonomy (or cultural imperviousness) of the genre, Phillips accepts Lyon's diagnosis of nature writing, but interprets this as support for his suspicions that contemporary nature writers work with century-old and long abandoned assumptions of nature, and are, in a sense, "trying to live and write in a cultural time warp" (Phillips 234).

I believe Phillips' criticism to be primarily directed at a Romantic legacy still strong in present-day nature writing. This legacy carries with it ideas about nature in currency in the nineteenth century, but still in circulation today – in nature writing as well as in society at large. Phillips makes a timely critique of the tendency in ecocriticism to overlook the fundamental contradiction between nature writing's application of detailed scientific description and its reliance on Romantic Transcendentalist tropes. This contradiction, however, need not end in an impasse or inward 'swerve' (Phillips 230) that renders the material world a mere setting for the plot of the mind's development. In the following I will investigate the contact zone between scientific and Romantic and/or aesthetic perceptions of nature in *Arctic Dreams*, with the aim of showing how the coexistence of these two tropes can give rise to new interpretations of the factual natural world.

The relationship between the study of human inner and nonhuman outer nature in nature writing is a contested issue. Lawrence Buell, whose work has been fundamental to the theorization both of nature writing and ecocriticism, views the balance between inner and outer nature in more equal terms than does Phillips. According to Buell, the textual representations of nature in nature writing have "a dual accountability to matter and to discursive mentation" (*Environmental* 92). This means that nature writing must provide scientifically accurate facts of nature, but these may be stylized for literary effect and for

⁷ Lyon's makes this salute to nature writing in his "Introduction" to Edward Lueder's book *Writing Natural History: Dialogues with Authors*.

clarifying the author's lines of thought. Unlike Phillips, Buell concludes that in bridging the narrator's inner and outer worlds, nature writing assigns final authority to the latter (*Environmental* 93-94). Significantly, the one text he employs in order to exemplify and theorize the principle of *dual accountability* is Lopez's *Arctic Dreams*.

In Buell's definition, then, nature writing counters the assumption that "stylization must somehow work against outer mimesis or take precedence over it" (*Environmental* 98). To the contrary, a certain amount of aesthetic stylization or invention may enhance the text's ability to generate a sense of environmental bonding (Buell *Environmental* 98-99). Nature writing thus presents its readers with a peculiar "symbiosis of object-responsiveness and imaginative shaping" (Buell *Environmental* 99). Its imaginative shaping is, however, regulated by the 'facts' of the environment, and the mimetic aspects take precedence over other, more literary (intratextual, intertextual, or autorepresentational) aspects (Buell *Environmental* 93). To the extent that nature writing's mimetic aspect relies on realist mimesis and scientific description, the genre challenges the formalist distinction between prose and poetry by incorporating both. Although texts of nature writing generally make no pretense of "total accuracy," as Buell puts it (*Environmental* 94), "nature is the court of appeal," and "the art of discovery is valorized above the art of fabulation" (*Environmental* 92). As *Arctic Dreams* exemplifies, this art of discovery is enhanced by the presentation of scientific facts in new contexts and from unfamiliar points of view.

Nature writing and landscape as text

My work on *Arctic Dreams* takes as its point of departure the idea that nature writing, with its essayistic playfulness and multiplicity of genres, is a mode of writing that allows natural facts and aesthetic conceptions about nature to be combined in novel contexts and from fresh perspectives. As Lopez's text exemplifies, the genre allows us to explore and reflect upon the nature of these scientific facts and aesthetic conceptions, as well as the influence they have on our perceptions about the natural world and our sense of relationship with it. Definitions of nature writing offered by literary scholar Don Scheese's and semiotician Timo Maran may help us understand how nature writing allows this coming together of different forms of knowledge about the natural environment, and to analyze the results that follow.

According to Scheese, the defining characteristics of nature writing signal its development from a series of other forms of written discourse:

natural history, for its scientific bent ...; spiritual autobiography, for its account of the growth and maturation of the self in interaction with the forces of the world; and travel writing (including the literature of exploration and discovery), for its tracing of a physical movement from place to place and recording of observations of both new and familiar phenomena. (6)

Arctic Dreams conveys genre characteristics typical of nature writing. In this text the different genres mentioned by Scheese are detectable not merely as ‘lines of descent,’ but exemplified within the text itself. Within its narrative framework of the autobiographical travel report, *Arctic Dreams* includes narratives of natural history, exploration and colonial expansion, old Western and ancient Inuit myths, as well as the findings and theories of modern science. This “polyphony of genres” allows the text to present us with a “multifaceted and complex picture of the North American Arctic” (Brøgger 32). Each of these genres represents its own kind of framing of the world, and partakes in larger, culturally determined, perceptual frameworks.

In addition to the various framings inherent in the different genres themselves, critical work on the genre of travel writing – on white Westerners’ written reports of their exploration and discovery of the rest of the world – has further led to the identification of a set of ‘codes’ employed by travelers in the construction of their representations. As Mary Louise Pratt has shown, these codes serve to define the discovered lands and cultural Others according to culturally determined terms and categories that at the same time condition the travelers’ images of themselves and *their* place in the world (4). As was the case for nineteenth-century arctic exploration narratives, these codes include the terms, entities, and categories of science. As we shall see later, they also include aesthetic terms, entities, and categories.

But in a genre so deeply involved with the human longing for reintegration with the natural world, to look at the entities of this world merely from the *human* perspective seems an impoverished approach. This is especially true to the extent that texts of nature writing employ defamiliarization as a literary tool in the service of creating a sense of environmental bonding – of learning to “know [one’s] neighbours” in the natural world, as Thoreau once put it (*Journal* December 4, 1856). Timo Maran’s more ecosemiotic approach to nature writing seems to offer a way out of this anthropocentric impasse. Taking as his starting point Greg Garrard’s claim that “the challenge for ecocritics is to keep one eye on the ways in which ‘nature’ is always in some ways culturally constructed, and the other on the fact that nature really exist” (Garrard 10), Maran proceeds to define nature writing as a genre that allows the simultaneous representation of the constructed and culturally determined human meanings

about the environment, *and* the meanings communicated by and within the environment itself (80). “Nature writing,” he argues,

would seem to relate to external structures of nature that have a semiotic activity, memory and course of change of their own. In addition to the imagination of the author, and social, ideological, cultural and psychological meanings and tensions between them, objects of ecocriticism also embrace organisms, natural communities and landscapes with their special properties and abilities to grow, communicate, learn and multiply. (Maran 79)

In this manner Maran establishes nature writing as a potential contact zone between natural and cultural semiotic systems. This implies, firstly, that the semiotic activities of the natural world in texts of nature writing oftentimes emerge through literary representations of phenomena or experiences for which we have no vocabulary, but that may nevertheless be described in semiotic terms. In this sense it offers a way of concretizing some of the ‘mystery’ of nature writers’ communication with the natural world that critics like Phillips find so troubling. Secondly, as indicated in Buell’s principle of ‘dual accountability,’ the external reality to which the text refers holds the power to adjust, distort, or completely overturn the textual representations if these do not correspond with this reality. Thus in Maran’s interpretation, whereas literary stylizations may involve innovative ways of representing the natural object, they are dismissed as faulty if the reader him/herself does not recognize it upon direct contact with nature.

My analysis of *Arctic Dreams* will be concerned with the correspondence between text and world only to the extent that Lopez within the text itself tries to stage a meeting between the experienced and the textually represented environment. The meeting between the environmental real and its textual representations is reflected in the bipartite structure of *Arctic Dreams*. Whereas the first half of the book presents Lopez the traveler’s encounters with, and empirically based scientific descriptions of, the North American Arctic, the second half proceeds to present the region through historical myths and textual representations that clearly paints quite a different image of it. My subsequent discussions will focus on the ways in which the artistic, aesthetic, and even scientific forms of representation *traditionally* engaged in descriptions of the arctic natural environment involve distortions and/or limitations to our understanding of this environment.

Maran’s characterization of nature writing involves an understanding of the natural environment as text. This understanding has its basis in a poststructuralist conception of text *not* as the product of an all-knowing, meaning-producing author, but rather in terms of an

uncontrollably meaning-generating tissue of cultural citations; or, as Roland Barthes put it, a “multi-dimensional space in which a variety of writings, none of them original, blend and clash” (99). From his place within the Tartu-Moscow school of cultural semiotics, Maran provides a similar functional definition of text as a “meeting ground of internal structure and external codes in [a] given culture” (Maran 80). This meeting ground has a “memory and semiotic potential of its own” existing beyond the intentions of any of the cultural actors (Maran 80). And because all cultures in some way or other depend on meaningful interactions with the surrounding environment, Maran argues that “there is no reason why the concept of text should not be broadened to embrace also the structures of nature” *so long as* there “exist[s] a practice of interaction with nature’s structures in such a way that they become distinctively meaningful” (81). In this he is supported by Andrew Stables, who in his 1997 article “The Landscape and the ‘Death of the Author’” argues that landscapes should be understood in terms of networks of shared meanings extending beyond the human sphere (108-111; cf. Maran 81).

The idea of landscape or natural environment as text is one in which it becomes difficult, indeed sometimes impossible, to draw distinctions between “the creative activities of humans, other life forms, and natural forces” (Maran 81).⁸ Just as poststructuralism has dismantled the idea that a text originates with a single author controlling its meaning, it is evident that if landscapes are texts they are neither written nor read by humans alone. This ecosemiotic approach to textuality invites considerations of the social construction of landscapes that moves beyond the human. In this approach, landscapes are texts because “they are perceived, interpreted and valued” by a wide range of social actors relating to them (Maran 81).

The basis of this ecosemiotic perception of landscape as text can be traced back to Baltic-German biologist Jacob von Uexküll’s development, in the 1930s, of the concept of animal *Umwelten*. Uexküll’s *Umwelt* refers to any animal’s perceptual lifeworld (Sagan 2); its “species-specific sphere” governed by the animal’s perceptions and construction of meaning (Maran 84). Hence the point of departure of *Umweltlehre* is that animals are subjects involved in the construction of their own perceptual worlds. From this perspective, the natural

⁸ Whereas Stables argues for the idea of *landscape* as text, Maran in his theorizations argues for the idea of the “*environment* as text” (81, italics mine).

environment takes the shape of a vast network of “various interrelated subjective worlds or environments” (Maran 84); a text with which no one author can be identified.

The conception of environment as text may help us avoid the hurdle of our anthropocentrism, which entails the problem of just how to read or represent forms of agency beyond our own that so unrelentingly haunts writers and critics of environmental texts. Just as with distinctly human forms of text, the idea of landscape as text does not require that its meaning be completely understood. Like the texts of any other foreign culture, or like historical texts “long forgotten and then retrieved,” our understanding of the landscape as text depends on our own ability to translate it (Maran 81). Ecosemiotics promotes the idea that nature is the “result of numerous interpretative practices, it has changed and been remade countless times before us, it is filled with various signs, meanings and signals for and by other living beings” (Maran 84). It recognizes the semiotic complexities of nature while admitting the human limitations to understanding these complexities.

Two implications follow from the ecosemiotic perspective on nature and nature writing that are important to my analysis of Lopez’s *Arctic Dreams*. The first is that acknowledging the existence of semiotic processes beyond the human and cultural brings out what Maran calls “the animal aspect of our interpretation processes” (83). These include “zoosemiotic nonverbal” processes of signification, such as “[d]irect and spatial perceptions, tactile and smelling sensations” and forms of “nonverbal communication” between living beings, the latter also involving imitation (Maran 84). All of these exist in addition to our own distinctly “anthroposemiotic verbal” processes of signification, and are processes we share with other living beings that makes it possible for us to communicate with them. Such shared processes of signification have their basis in shared biological foundations. They rely on similarities in “morphology,” “perception,” “basic needs and dispositions (need for food, water, shelter, avoidance of accidents, pain and death),” and result from “being subjected to the same physical forces” and from “inhabiting” and “relating with” the same environment (Maran 84). As we shall see in the following, Lopez describes arctic natural environments in ways that underscore the possibility and existence of this form of zoosemiotic communication. His representation of the Arctic further relies on two more central aspects of the ecosemiotic understanding of textuality: the social nature of the landscape as text, and the related concept of animal *Umwelten*.

Lopez presents his Arctic in terms of a text in which the signifying processes of animals and humans meet. However, the idea of the natural environment as text relies on a

certain cultural skill in reading this text. This is a skill arguably neglected in modern Western technocratic cultures in which we find ourselves no longer directly dependent on our immediate environment for survival. Apart from the close scientific or semiotic scrutiny of the natural environment, the activity that beyond all else seems to engender in modern Westerners an insipient environmental literacy is hunting. This, I believe, is the reason why hunting is such a central and recurring theme in *Arctic Dreams*. It is also what motivates me to devote an entire chapter to the exploration of the text's depiction of the forms of perception associated with the hunt.

The activity of hunting originates in a human past in which the ties of direct dependency on nature had not yet been broken. This might explain why hunting is a favored theme in American nature writing (Finch and Elder 28). It further represents a traditional and still partly active way of life for the Inuit of the North American Arctic, and is in this respect a culturally relevant aspect to include in a text about the Arctic. However, as I discuss in Chapter Four, Western and Inuit perspectives of hunting imply very different perceptions of animals and of the natural environment. In *Arctic Dreams*, Lopez applies the indigenous hunter's mode of vision as a way to begin to interpret the natural environment, and to activate a kind of text-reader dialogue with the land. Through the indigenous hunter's perspective Lopez's text becomes accountable to both animal and human meaning-making in the Arctic.

Before we leave this discussion of how nature writing engages with the idea of nature as text, it should be noted that this idea is also strong in new materialist theories of the natural world. Whereas ecosemioticians have developed this idea as a means to read and explore the meaning-making activities of animals, new materialists rely on the idea of nature as text to read and explore the agentic qualities of the natural world.

The central idea of new materialism is that "matter possesses agency" (Iovino and Oppermann 77). To Jane Bennett, like to new materialists (and new materialist critics) in general, the image of matter as "dead or thoroughly instrumentalized" is one that supports and "feeds human hubris and our earth-destroying fantasies of conquest and consumption" (Bennett ix; cf. Alaimo "Trans-corporeal" 249). Our present habit of dividing the world into "dull matter (it, things)" and "vibrant life (us, beings)," she writes, represents a Rancièrian "partition of the sensible"; a kind of systematic blindness that causes to "ignore the vitality of matter and the lively powers of material formations" (Bennett vii; cf. Rancièr 12). Trying to

overcome this blindness, the new materialisms absolve matter from its “long history of attachment to automatism or mechanism” (Bennett 3).⁹

Once matter is agentic, Iovino and Oppermann claim, “every material configuration, from bodies to their contexts of living, is ‘telling,’” and critical analysis can potentially “discover[] its stories” (79). The world once again becomes text, but the kind of text that begins with, brings forth, or highlights the referential real. No entity exists in isolation. To the contrary, the new materialist texts are complexes in which “human agency and meanings are deeply interlaced with the emerging agency and meaning of ... nonhuman beings” (Iovino and Oppermann 83). By thus allowing for a re-negotiation of the boundaries of narrative agency, new materialist perspectives allow us to conceptualize and trace the narratives of matter, and to discover how the agencies of matter both combines and interferes with the (intentional) agencies of humans (Iovino and Oppermann 86). This is why, to new materialist ecocritics, new materialism constitutes “an enterprise of liberation ... from dualisms, from ideal subjugations, from the perceptual limits that prevent our moral imagination from appreciating the vibrant multiplicity of the world” (Iovino and Oppermann 87).

My analysis of *Arctic Dreams* relies on ecosemiotic and new materialist conceptualizations of the natural environment as (nature-culture) text, and investigates to what extent we can find this idea expressed within Lopez’s arctic narrative. It is a new materialist analysis not in the sense that it applies the concepts and theories of new materialism to Lopez’s text, but rather in remaining persistently alert to the way the physical environment is depicted, and to what effect. By combining new materialism’s focus on matter with insights from selected sources of anthropology, ecophilosophy and animal studies, my close textual examination of *Arctic Dreams* reveals precisely how it engages in what Iovino and Oppermann term the “liberation” from dualistic thinking and other (cultural and/or habituated) limits to perception.

⁹ “Mechanism” here refers to the philosophical “doctrine that holds natural processes (as of life) to be mechanically determined and capable of complete explanation by the laws of physics and chemistry” (“Mechanism”).

The Arctic as contact zone

Due both to the way it allows a combination of human and nonhuman semiotic activities, and to its inclusion of different genres and written forms of discourse, nature writing of the kind *Arctic Dreams* represents may be thought of in terms of a literary *contact zone*. The concept of the contact zone was first introduced by Marie Louis Pratt, who in her book *Imperial Eyes: Travel Writing and Transculturation* defines it in terms of the “social spaces where disparate cultures meet, clash, and grapple with each other, often in highly asymmetrical relations of domination and subordination” (7). Pratt explains how the term “contact zone, although sometimes synonymous with ‘colonial frontier,’” represents a shift away from the perspectives of expansive imperialism and towards the perspectives of colonial subjects (8). Clearly, in Maran’s ecosemiotic definition, nature writing involves texts in which the semiotic activities of humans and animals exemplify precisely such asymmetrical power relationships. Like in much other nature writing, the artistic aim of *Arctic Dreams* is to change this power relationship by shifting the emphasis of its representations towards points of view representing the suppressed or silenced denizens of the natural world.

Although Pratt in *Imperial Eyes* time and again shows how materiality is involved in the denotation and contestation of cultural meaning, in her definition the contact zone is a cultural concept:

It invokes the space and time where subjects previously separated by geography and history are co-present, the point at which their trajectories now intersect. The term ‘contact’ foregrounds the interactive, improvisational dimensions of imperial encounters so easily ignored or suppressed by accounts of conquest and domination told from the invader’s perspective. A ‘contact’ perspective emphasizes how subjects get constituted in and by their relations to each other. It treats the relations among colonizers and colonized, or travelers and ‘travelees,’ not in terms of separateness, but in terms of co-presence, interaction, interlocking understandings and practices, and often within radically asymmetrical relations of power. (8)

By including the improvisational dimensions of imperial encounters into her definition, Pratt’s theories nuance the idea that colonial spaces take their expression purely as a result of the discursive constructions performed by the colonizers. This nuancing in an important way opens up for the possibility that even dominated subjects may influence the discursive field; that they may “‘talk back’ and influence Western thought” (Høvik 31).

Pratt developed the concept of the contact zone through her critique of European, often scientifically inclined, narratives of travel in regions in the southern hemisphere; in

lands rich in plants and animals, with both indigenous and European settler communities. It is therefore pertinent to ask whether or not the concept of the contact zone may successfully be applied to a text of nature writing that portrays the Arctic. Arguably, although less evidently so than on more southern continents, the long tradition of European exploration and exploitation of the natural resources of this region justifies including the Arctic into the history of Western imperialism. This point is made by scholars of the Arctic Lisa Bloom and Jen Hill, whose work has revealed how arctic space served as the ideological terrain on which British and American explorers of the nineteenth and early twentieth centuries explored issues of “gender, nation, race, and empire” (Hill *Horizon* 4).

As Bloom and Hill both show, polar exploration represented a new and purer kind of “imperial theatre” (Bloom 3) that still regarded “geographical dominance” an affirmation of “cultural superiority and progress” (Hill *Horizon* 21). The cause of the presumed purity of arctic exploratory efforts lay in the fact that these imperial efforts took place outside the boundaries of the empire, in a region that promised little or no material gain. Accordingly, arctic exploration was perceived as “stainless” not only because it “lacked economic motive” (particularly after the loss of the Franklin expedition extinguished hopes of a trade route to China through the North-West Passage), but furthermore because it avoided the complicated and uncomfortable issues of economic exploitation, slavery, racism and miscegenation that troubled the colonial enterprise elsewhere (Hill *Horizon* 9). The only gain to be had from this enterprise, it seemed, was the scientific mapping of this unknown region for the benefit of mankind.

However, the application of postcolonial perspectives to old explorer narratives and associated cultural texts has revealed even the celebrated blankness of the Arctic to be part of the discursive strategy of imperialism. Elsewhere this strategy “produced the rationale to justify the process of filling in by the West, through the introduction of Western institutions” (Bloom 2). In the Arctic, where the introduction of Western institutions was not an issue, it simply reflected the cultural superiority and “entitle[ment] to possession” of individuals who held the power to fill in the blanks on the map (Bloom 2). As Hill points out, idea of the Arctic as blank space was challenged only to a limited degree by the presence of its indigenous peoples, whose nomadic lifestyles made it easy for the reading audience to mentally displace them from regions that the explorer narratives encoded in terms of vast, empty spaces. It met no further resistance in the explorer narratives’ two-hundred-year-long tradition of presenting the Arctic as “uninhabitable” (Hill *Horizon* 12). In the nineteenth

century the symbolic value of the Arctic depended on conceptions of it as an untainted, empty and unchanging space against which male British explorers could prove the masculinity – the “resilience, ingenuity, and staunchness” – of their national character (Hill *Horizon* 6). “[T]he complex material realities of Arctic environment or well-established native cultures and traditions,” as Hill brutally honestly puts it, was something the British “had no use for” (*Horizon* 16). Accordingly, we find in these narratives the same erasure of Inuit culture, Inuit presence and Inuit assistance in white exploration efforts as we do in other imperialist texts (Bloom 3).

Focusing on the challenges modernity poses to arctic natural environments and their denizens, *Arctic Dreams* gives an image of the Arctic as one of modernity’s contact zones. Threatened by the processes of modernization are the ‘usual’ victims of objectivization and control: cultural (or gendered) Others, animal Others, and the physical environment. Whereas the latter takes a prominent role in arctic explorer narratives, cultural and animal Others are in these narratives simultaneously objects of study and victims of erasure.¹⁰ In response to this literary tradition, *Arctic Dreams* attempts to present alternative ways of understanding arctic natural environments and their human and animal Others that may mediate a less colonialist/exploitative approach towards them – and open up alternative roads of development. This is done by incorporating Inuit ontologies (and to some extent epistemologies) in combination with insights from several scientific and cultural discourses that share with nature writing a focus on the (two-way) transactional relationship between humans and the natural world. As such discourses meet in the texts’ portrayals of the Arctic, I will claim that what emerges is an extended natural-cultural ‘arctic contact zone’.

I will also be arguing here that the ecological concept of the *ecotone* represents a form of contact zone. In a central scene in *Arctic Dreams* the edge of the floe ice is presented in terms of a “border zone[.]” in which “animals from different ecosystems” meet with each other and with the limits of their physical environments (*AD* 123). The interactions that occur within this the ecotone is, according to Lopez, one that charges it with “evolutionary

¹⁰ In denoting arctic cultural Others ‘victims of erasure,’ I do not mean to imply that Inuit peoples and Inuit forms of life were not present in the texts of exploration (the narratives of Knud Rasmussen, Fridtjof Nansen, Roald Amundsen and even William Edward Parry would refute such a claim) but merely to point out the tendency in these texts to present the Inuit as people whose ways of life are stuck in the past, and whose cultures will eventually – and inevitably – be erased by the great progressive force of modernity.

potential” (*AD* 123). Although the sharpness of the edge between ice and water invites Lopez’s conceptualization of the floe edge ecotone in terms of a border zone, what drives evolution forward are precisely the relations between the different animals and their worlds that result from their co-presence and interaction at the ice’s edge. This justifies reading the ecotone in this dissertation as a kind of contact zone.

In an interview with Kay Bonnetti, only two years after the publication of *Arctic Dreams*, Lopez describes his literary art – his “working in [or with] a story” – in terms of “working in an ecotone” (Bonnetti 76). A story is an ecotone because of the way it connects two ecosystems: the language of the story and the world outside the story. This is how Lopez connects the two:

The relationships between the sounds of the words, the relationships syntactically among the words in a sentence, how the paragraphs attach to each other, the euphony of the piece, the organization of ideas, the way it plays against itself at different levels – it’s an ecosystem. The obligation with fiction is to create a coherent ecosystem, and the same is true with nonfiction, but there you must also match the ecosystem against an outside authority. (Bonnetti 73)

Note how Lopez here articulates Buell’s conception of nature writing’s ‘dual accountability’ – towards the authority of the world itself and towards reflective thought. More importantly, like the physical ecotone presented within *Arctic Dreams*, Lopez also charges this extended language-environment ecotone with evolutionary potential. This is done implicitly in an earlier part of the interview, in which he argues that “[w]riting is not something to fool around with; the course of history is changed by language. Evolution is affected by language” (Bonnetti 62). In this manner Lopez outlines a natural-cultural ecotone, or contact zone, in which language and cultural expressions partake in the evolution of the world. Included in this extended contact zone is also the border between the real and the imagined (Bonnetti 76); a border arguably obscure in Western historical portrayals of arctic landscapes. The way Lopez in this manner joins language, culture and the natural world within a natural-cultural ecotone is recognized by literary critics in what I will in the following describe in terms of the ‘second wave’ of criticism on *Arctic Dreams*. It establishes Lopez as a forerunner of a way of thinking about the relationship between nature and culture that would in the coming decades engage theorists from a broad array of scientific and scholarly disciplines. As my analysis of *Arctic Dreams* will exemplify, this expansion of the concept of the ecotone into a natural-cultural contact zone is one that alters the range of actors to be taken into consideration in our reflections on the place of the human within the natural world.

Unlike Pratt's cultural contact zone, a natural-cultural contact zone is one in which the range of actors (or entities) involved expands beyond the category 'cultural subject.' In her 2008 *When Species Meet*, Donna Haraway uses term "contact zone" to describe the "world-making entanglements" (4) between humans and non-human "companion species" (17). Stacy Alaimo's idea of *trans-corporeality* (thoroughly explained and elaborated on also in her book *Bodily Natures: Science, Environment and the Material Self* from 2010) similarly describes a "literal 'contact zone' between human corporeality and more-than-human nature" (Alaimo "Trans-corporeal" 238). This human-nonhuman contact zone is one that seems to be implied in Eagleton's definition of the aesthetic. My analysis of *Arctic Dreams* will show that this notion of the aesthetic is central to Lopez's representations of arctic landscapes.

Texts of nature writing possess the potential of acting as contact zones. The qualities of the arctic physical environment, together with the fact that there still exists in this region an indigenous population whose relationship with the land constitutes an alternative to our own, make of the Arctic a contact zone in which more profound issues of human subjectivity and relationship with the natural world can be explored. As Pratt emphasizes, "[t]he complexities of the contact zone," in which different sets of categories often become mixed and confused, brings the traveler "face to face (if he will only recognize it) with the limits of his own conceptual framework" (52, 44). My broadening of the concept of the contact zone to include the sensorial allows me to analyze the implications of different perceptual frameworks on our human understanding of the natural environment, and to engage in discussions of the aesthetic qualities of the contact zone. Philosophically reflective, *Arctic Dreams* embodies representations of arctic natural environments (or 'nature') that deviate from earlier accounts of this region. One cause of this difference is the text's application of different cultural frames of vision. Associated with these are different perceptions of space and place, different understandings of ecological relationships (and hence different forms of 'ecological wisdom'), and different cultural metaphors and symbolisms.

Ecocriticism and *Arctic Dreams*

Arctic Dreams is an established classic of the nature writing genre, and a book that has had a profound influence on readers, literary critics and theorists of ecocriticism. It has

received numerous awards, among others the 1986 National Book Award for nonfiction,¹¹ and has been translated into a number of languages, including Spanish, French, German, Italian, Japanese, Arabic, Dutch, Swedish and Norwegian (OCLC WorldCat). Lopez is a prolific writer with an extensive list of publications of fiction and non-fiction books and essays. He publishes regularly in journals like “*Harper’s*, *The Paris Review*, *Orion*, *The Georgia Review*, *Granta* and *National Geographic*,” has served as corresponding and/or contributing editor for national magazines like *Manoa*, *Harper’s* and *Orion*, and contributes extensively to books edited by others (Newell 78; cf. Warren 15). Several chapters, or part of chapters, of *Arctic Dreams* have been published as essays in the mentioned journals. The most recent book on Lopez’s authorship, James Perrin Warren’s *Other Country: Barry Lopez and the Community of Artist* (2015), describes Lopez’s lifelong interest in the visual arts and his active engagement with a series of artists who share his interest and concern for our human relationship with the natural world.

My own literary approach to *Arctic Dreams* is an ecocritical one. Cheryll Glotfelty, co-editor of *The Ecocriticism Reader* (1996), defines ecocriticism as “the study of the relationship between literature and the physical environment”; one that takes “an earth-centered approach to literary studies” (xviii). This earth-centered approach is motivated by what Glotfelty calls “the troubling awareness that we have reached the age of environmental limits, a time when the consequences of human actions are damaging the planet’s basic life support systems” (Glotfelty xx). Thus ecocriticism, in Lawrence Buell’s words, “gathers itself around a commitment to environmentality from whatever critical vantage point” (*Future* 11). According to Greg Garrard, it is “unique amongst contemporary literary and cultural theories because of its close relationship with the science of ecology” (5). Generally, however (and this is what Dana Phillips finds so exasperating), ecocriticism is interested in ecology less for the sophisticated concepts and analyses it has to offer, and more for what Neil Everden identifies as the truly “subversive element” of this otherwise “normal, reductionist science”:

¹¹ According to Mike Newell, following the publication of *Arctic Dreams* Lopez further earned “an award in literature for ‘body of work,’ from the American Academy and Institute of Arts and Letters. In 1987, he received the Francis Fuller Victor Award in nonfiction from the Oregon Institute of Literary Arts for *Arctic Dreams* and was awarded a John Simon Guggenheim Foundation fellowship” (75). Further acclaim for *Arctic Dreams* includes “the Los Angeles Times book award nomination, the American Library Association Notable Book Citation, *The New York Times Book Review*’s ‘Best Books’ listing, and the American Library Association ‘Best Books for Young Adults’ Citation” (Newell 75).

the “basic premise [of] *inter-relatedness*” (Evernden "Beyond" 93, italics mine). As a result of its concern with human relationships with the natural world and with environmental degradation, ecocriticism expands literary theory’s examination of “the relations between writers, texts, and the world” to include “the entire ecosphere” (Glotfelty xix).

Ecocriticism is a fairly recent development in literary studies. Critics agree that the term ‘ecocriticism’ originates in William Rueckert’s 1978 article “Literature and Ecology: An Experiment in Ecocriticism” (Glotfelty xx; Buell *Future* 13; Slovic "Third Wave" 4). They further agree that ecocriticism, despite its multiplicity of critical vantage points, has a history of more or less overlapping “waves” or “trend-lines” of development (Buell *Future* 17). The initial phase or ‘first wave’ of ecocriticism began around 1980, and covers the time of the publication of *Arctic Dreams*. Its main focus was on “nonfiction ‘nature writing’; non-human nature and wilderness; American and British literature; and ‘discursive’ ecofeminism” (Slovic "Third Wave" 4-5). As Buell explains, this first-wave ecocriticism regarded non-fiction nature writing to be “the most representative environmental genre” (*Future* 22). It tended to understand “environment” in terms of “natural environment,” and ecocriticism as a form of literary study manifesting the “claims of earthcare” (Buell *Future* 21).

For all its idealism, first-wave ecocriticism was criticized by ‘second-wave’ ecocriticism, which began around 1995, for the way it treated the natural and the human realms as more or less separate (Buell *Future* 22; Slovic "Third Wave" 5-6). Pointing to how natural and built environments are “long since all mixed up,” ‘second-wavers’ argued that ecocriticism should include urban and degraded landscapes, and revise its “nature protection ethic” in a manner that could accommodate environmental justice concerns (Buell *Future* 22). This increasing involvement with social and cultural environmental issues led second-wave ecocriticism to expand its study of genres beyond the focus of nonfiction, and even of literature per se, and to turn its attention to “the artistic representation of environmental conditions and experiences of various cultural groups around the world” (Slovic "Third Wave" 5). In its second stage of development, ecocriticism increasingly recognized the existence of “ecocultural complexit[ies]” and “discrepant” artistic and critical practices from which new ecocritical practices could in time develop (Buell *Future* 11).

In the opening article of the first ever issue of *Ecozon@*, the *European Journal of Literature, Culture and Environment*, Scott Slovic outlines a new ‘third wave’ of ecocriticism. Emerging at the beginning of the 21st century, this third wave has developed more or less in parallel with ecocriticism’s second wave, but towards a “more comparative,

trans-cultural approach” that encourages ecocritics to read their national literatures against an international framework (Slovic "Third Wave" 6). Among other characteristics of this wave Slovic mentions how “global concepts of place are being explored in fruitful tension with neo-bioregionalist attachments to specific locales” (“Third Wave” 7). The same *Ecozon@* issue also features Serpil Oppermann’s article on “The Rhizomatic Trajectory of Ecocriticism.” In Oppermann’s opinion the many new entryways into ecocriticism (from Cultural Studies, Postcolonial Studies, the Environmental Justice movement, and the natural sciences) and ecocriticism’s “methodological and theoretical plurality” suggest that “our story is tangled up with the story of the planet and its non-human life, perhaps more so today than it has ever been before” (Oppermann 18, 17). This diversification of ecocriticism, she argues, makes the field itself “manifestly postmodern” and “encourages a [critical] praxis that embraces diversity and holism without subsuming either term to the other” (Oppermann 19, 20). As we shall see, Lopez in his descriptions of the Arctic applies a plurality of perspectives that allow his text to combine an understanding of the heterogeneity and open-endedness of the landscapes he describes with a sense of their coherence. Also two other features of contemporary ecocriticism are of significance for our study of *Arctic Dreams*: an “intensified focus on the concept of ‘animality’” and the development of material ecocriticism (Slovic "Third Wave" 7). In its turn toward the material and the animal, third wave ecocriticism offers perspectives one may recognize in *Arctic Dreams*, a text that in other respects signals its adherence to the concerns of ecocriticism in its first stage of development.

The critical reception of *Arctic Dreams*

Similarly to ecocriticism, literary analysis of *Arctic Dreams* can also be thought to belong to different but overlapping ‘waves.’ In the 1990s, critical work tended to focus primarily on the text’s Romantic qualities, whereas critics the after the turn of the millennium turned towards investigations of the ecological models the text presents.

Examples of the more Romanticist readings include Sherman Paul’s “Making the Turn: Rereading Barry Lopez” (in *For Love of the World: Essays on Nature Writers*, 1992) and Scott Slovic’s “‘A More Particularized Understanding’: Seeking Qualitative Awareness in Barry Lopez’s *Arctic Dreams*” (in *Seeking Awareness in American Nature Writing*, 1992). Pointing to how Lopez redefines the concept of the aesthetic away from the visual “spectatorial viewing of [natural] scenery” and into a form of ecological understanding that

ultimately “refers to the beauty and harmony of the world,” Paul recognizes in *Arctic Dreams* the Romantic idea of the holistic unity of the world (98). Further finding in Lopez’s text a “moral exploration of this original order (‘the pattern that we call God’)” as well as a characteristic “love of light,” Paul proceeded to suggest that these qualities “warrant thinking of Lopez as a legatee of the transcendentalists” (107). Other critics and writers have also recognized in Lopez’s work a religious or “sacramental” quality resembling those of former Transcendentalist texts (O’Connell “At One” 16). Among them we find Nicholas O’Connell and John Gatta. The latter emphasizes the importance, in *Arctic Dreams*, of “the Imagination” as that “unifying faculty of mind by which humans know themselves to be ‘incorporated into the same moral universe’” as the animals of the Arctic (Gatta 183). Like Gatta, Paul believes the imagination to play a crucial role in *Arctic Dreams*’ ecological vision of the Arctic. His argument for this is two-fold: first, that “Lopez acknowledges the incredible power of the mind by employing *imagination*, the arch-Romantic word, in the subtitle” of the book, and second, that Lopez’s narrative explores “the imaginings ... of the many explorers who,” in the manner of true Romantics, “tested themselves ... against the ice” (Paul 102-3). By the latter statement Paul implicitly draws a connection between the Romantic imagination and human heroics associated with the natural sublime; an aesthetics evoking a distinctly different conception of nature than the ‘beauty and harmony’ Paul’s ecological aesthetics refers to.

Slovic’s work on *Arctic Dreams* highlights another renowned quality of Lopez’s work; his respectful attitude towards the natural world and the cultures he visits. Although “Lopez is very much in the tradition of European exploration,” Slovic argues, “unlike such travelers as Alexander von Humboldt [and, we may add, other of Linnaeus’ descendants] whose purpose was to illuminate distant places and accommodate them within a European worldview which had little room for the genuinely exotic, Lopez seeks to travel and write in a ‘tolerant’ frame of mind” (Slovic *Seeking* 147). To Lopez, this tolerance involves two things. The first is a recognition of apprenticeship that involves submitting yourself to “take[] the lead of native tutors” (Lopez “Naturalist” par. 22; cf. Warren 4). The second is a “respect toward the material” and what *it* can communicate to you, rather than “what you are trying to impose on it” (O’Connell “Lopez” 27). The material, in other words, comes with its own set of imperatives, articulated by Lopez in the words: “Listen. Pay attention. Do your research. Don’t presume” (O’Connell “Lopez” 27). These imperatives might in *Arctic Dreams* easily be interpreted to relate to the *physical material* aspects of nature (as exemplified in the text’s many catalogues of physical natural ‘facts’ about the *Arctic*). Slovic, however, forfeits this

interpretation in favor of an analysis of how the text communicates a more intellectual and symbolic form of awareness of the landscape. Among critics, only Warren seems to recognize that “Lopez develops a particularized understanding of the Arctic on every page on *Arctic Dreams*,” and to incorporate into his work considerations of how Lopez ascribes an aesthetic dimension to this empirical Arctic reality (Warren 57).¹²

Slovic’s study of *Arctic Dreams*, like Paul’s, seems to have as its primary focus “the way the writer’s mind works” (Slovic *Seeking* 157). What is highlighted is the writer’s “self-conscious interest in the psychology of awareness” and his attempts to initiate in his readers a basic understanding of this psychology (Slovic *Seeking* 141). By thus approaching Lopez’s text, Slovic suggests the *symbolic* to be the text’s primary and “Proper Frame” of analysis (*Seeking* 156). In “presuppose[ing] that the persona is the main subject, that selectivity is suppression, that represented detail is symbolic, that environmental knowledge (in either author or reader) counts for little,” Slovic’s reading of *Arctic Dreams* exemplifies what Buell has termed a “fictionalist reading” of nature writing (Buell *Environmental* 96).

The second wave of critical work on *Arctic Dreams* is more involved in the text’s ecological aspects, and (in most works) in how ecological models work to reinforce the text’s ethical dimensions. Connected with this second wave, yet firmly situating itself in opposition to its methods and “missionary zeal,” Phillips’ critique of nature writing in general (212), and of *Arctic Dreams* in particular, is directed at the uncritical and unscientific application of ecological concepts and ideas. Phillips is right when he notes that Lopez’s text involves “a meditation on the shortcomings of the scientific point of view” (226). As I will show in the following, reflections and renegotiations of the use of scientific perceptions of the world are an integral part of *Arctic Dreams*. However, Phillips’s conclusion that “the detailed natural history that has been presented in the opening pages of the book is [in later chapters] revealed as window-dressing” (226), imparts that he holds much the same negligent attitude towards the more scientific and ecological parts of *Arctic Dreams* as do first-wave critics of a more Romantic understanding of nature writing. Phillips selects the more contemplative, mystical

¹² As the project of Warren’s book is to investigate Lopez’s long-term affiliation with a community of artists, his discussions of the aesthetic dimensions of the land and the light in *Arctic Dreams* end by extending “the empirical authority” of the landscape “beyond the merely aesthetic and into the light of the spiritual” (62) – that “*Other Country*” in which art and other forms of attentive observation come together to allow a conversation with the land beyond words. In this sense, also Warren’s approach is less materialist in focus than my own.

and/or transcendental passages of *Arctic Dreams* in order to further his critique of nature writers' search for the Romantic call for 'innocent' awareness, for anti-intellectual 'epiphanies' that result from direct contact with the natural world. He makes the legitimate point that the text's more transcendental passages more truly represent an aesthetic stance than a moral one.¹³ However, his superficial treatment of the first six chapters of the book causes Phillips to overlook the narrator's entanglements in the arctic landscapes he presents; his evocation of their materiality; his repeated scientific description of their non-human species; and his insistence on the intrinsic value and right to life of their many non-human denizens.

The most recent representative of the more truly ecologically committed second-wave criticism of *Arctic Dreams* is Shiuh-huah Serena Chou's "Barry Lopez's *Arctic Dreams*: Organicism and the Relocation of the Wild" (2013). This article shows us how Lopez presents the arctic wilderness as a self-governing organism, thereby "challeng[ing] the simplistic reading of wilderness as order" (Chou 29). Comparing *Arctic Dreams* to major trends in wilderness management regimes, Chou reads Lopez's text as part of a broader cultural dialogue between different perceptions of wilderness as either homeostatic order or a complex, self-generating system that she dates back to the 1990s (Chou 28).

My problem with Chou's analysis of the tension that exists in *Arctic Dreams* between ideas of nature as stabilized order and as a self-governing and evolving (chaotic) ecological system, is that she concludes by relegating Lopez's Arctic to the former category. Lopez's "teleological approach," she writes, "sacrifices historical particulars and change" and celebrates wilderness as a realm without human activity and "outside the erosion of time" (Chou 33). Chou's critique in this manner implicitly accuses Lopez of perpetuating what William Cronon, in his much-cited essay "The Trouble with Wilderness," characterizes as two major concerns associated with the (American) cultural conception of wilderness; that it must be empty (as in uninhabited by humans), and that it must exist, somehow, outside of time (Cronon 79). As we have already seen, much the same restrictions apply to conceptions of the Arctic in nineteenth-century explorer narratives.

I would argue that this is an unfair characterization of *Arctic Dreams*; one that is blind both to its accounts of the history of Inuit cultures in the North American Arctic and to the

¹³ In one such passage, Lopez describes "the land" in terms of "poetry": as "inexplicable coherent, ... transcendent in its meaning, and [with] the power to elevate a consideration of human life" (*AD* 274).

challenges faced by Inuit communities in meeting with the forces of modernization. It is furthermore one that overlooks the important role Inuit perspectives of the world play in this text. Indeed, in his account of the Arctic, Lopez persistently refrains from using the term 'wilderness' in favor of the terms 'landscape' or 'the land.' Whereas the former refers to a Western tradition of objectification and aesthetization of the Arctic the text makes a point out of problematizing, Lopez's use of the term 'the land' signals adherence to an Inuit understanding of the natural environment as "'lived' land recognized as [someone's] homeland" (Collignon 44). Not until the very last chapter does Lopez evoke the wildness of the North American Arctic as part of his call for a "more radical Enlightenment," thereby associating the Arctic with a symbolical reading of wildness as that which allows a readjustment of our human relationship with the natural world (AD 405). However, as analyses in Chapter Eight will demonstrate, even in this symbolic interpretation Lopez's arctic wilderness is of a different nature than the symbolic wilderness of the Romantics.

The two critical works with which my own dissertation shares the greatest similarity are Romand Coles' "Ecotones and Environmental Ethics" (*In the Nature of Things: Language, Politics, and the Environment*, 1993) and Neil Browne's chapter "Northern Imagination: Wonder, Politics, and Pragmatist Ecology in Barry Lopez's *Arctic Dreams*" in his book *The World in Which We Occur: John Dewey, Pragmatist Ecology, and American Ecological Writing in the Twentieth Century* (2007). Both these works consider the concept of the *ecotone* to be central to *Arctic Dreams*' project of bringing forward the *otherness* of the nonhuman world. Starting from Lopez's description of the physical floe edge ecotone, Browne and Coles in different ways reveal the text itself to function as an extended form of ecotone; as a "transformational site of heightened possibility" that "may also include the interface of the material world and products of the human imagination" (Browne 146).

Coles uses Theodore Adorno's concept of *negative dialectics* as a tool through which to "explore the possibilities and ethical implications of dialogue with a world that both breathes through us and remains very elusive, other, nonidentical with our conceptualizations" (230). This causes him to conclude that "the most profound ecotone in the book [*Arctic Dreams*] ... is the one that occurs at the dialogical edge between self and the otherness of the world" (Coles 243).

Browne chooses John Dewey's pragmatism as the basis of his analysis of *Arctic Dreams*. According to Browne, key features of Dewey's thinking are the recognition of the multiplicity of interrelationships and relations that constitute the world, and the ways in which

these establish an “inextricable linkage of the cultural and the natural” (8). This, Browne claims, allows pragmatism to “help us imagine the present and future role of human culture in the world’s ecologies” (2). On the basis of these premises he presents the concept of *pragmatist ecology*: a concept that in ways similar to Lopez’s own ideas about the natural-cultural ecotone recognizes that “in relation to physical environments in which humans are involved, crucial roles are played not only by the biology of creatures but also by the culture of the human creature” (Browne 2).

The concept of pragmatic ecology allows Browne to discuss “the nexus of aesthetics and ethics” in *Arctic Dreams* (150), pointing to how Lopez, throughout the narrative, “reworks traditional structures” of thought in order to help ground what he, like Paul, describes as the text’s “ecological aesthetics” (Browne 157). This, to my knowledge, makes Browne the first critic to engage with the aesthetics of the sublime in *Arctic Dreams*, and to suggest the presence of an “ecological sublime” in Lopez’s text (Browne 151). From an arctic point of view, this represents a particularly interesting line of investigation, and one that promises to shed light upon the tension implied in Paul’s work between an ecological aesthetics of beauty and harmony, and the idea of the natural sublime.

Echoing Lopez’s belief in the ‘evolutionary potential’ of literature, Browne argues for the way ecological texts like *Arctic Dreams* are part of “the patterning of possibility” for future, and more environmentally sound, co-evolutions of human cultures and natural environments (146). He finds the text’s subject matter, *the Arctic*, to be “especially helpful” in this respect (Browne 149). “[T]he extreme otherness of the Arctic,” he writes, “forces us to look at ourselves differently – the landscape of the Far North will not accommodate our sedate ways of understanding the processes of the world” (Browne 149). Unfortunately, Browne does not really discuss what the nature of this otherness *is*, and *in what way* it engenders the critical introspection he refers to. Which leaves me with the question: If the physical nature of the Arctic is so important to the character and the ethical impact of *Arctic Dreams*, why are the ‘arctic particulars’ of this text generally ignored in the history of its criticism?

The current project

Despite the position of *Arctic Dreams* as one of the great classics of American nature writing, little work has been done on the specifically arctic qualities of this text. While literary

scholars like Reneé Hulan and Dana Phillips have critiqued the text's representations of North American Inuit, its representations of arctic animals and arctic natural phenomena have tended either to be neglected or selectively employed in the support of new ecological and/or literary models of the world. Similarly, the text's unique combination of scientific, anthropological, historical, and literary representations seems to have escaped scholarly consideration. With my dissertation I hope to amend this situation by turning my attention to three fields of investigation of relevance to *Arctic Dreams*: the animal, the material, and the aesthetic. In so doing, I will enter into dialogue with important critical work done on *Arctic Dreams* within the domain of the aesthetic. I will furthermore apply tools and perspectives developed by third wave ecocriticism to perform an analysis of the text's involvement with arctic animals and materialities.

My project uses *Arctic Dreams* as a case study of how changes in environmental and cultural circumstances may alter our perceptions of the Arctic. In this context, the historical neglect of the text's specifically arctic qualities is highly problematic in at least two respects. Firstly, it implies a continued silencing of the Arctic: of ideas, topics, and physical matter distinctly arctic. Secondly, it causes critics to miss the way in which the text's factual and scientific parts engage in a transforming dialogue with its more frequently investigated aesthetic ones. This, to me, is an important aspect of *Arctic Dreams*. In response to this situation, my study of this text is performed from a distinctly arctic perspective and has an arctic focus. At the same time, however, it also speaks of more profound shifts in the way we humans perceive ourselves in relation to the natural environment. My objective is to produce an analysis of *Arctic Dreams* that, like the text itself, has a dual accountability towards the Arctic, and that therefore treats representations of the actual, physical Arctic as equal in importance to the narrator's reflections upon the interchanges between landscapes of the mind and of the world.

Whereas earlier ecocritical work on *Arctic Dreams* has applied different theoretical frames of analysis (Paul and Slovic a Romantic theoretical framework, Coles and Browne the philosophical frameworks of Adorno's *negative dialectics* and Dewey's *pragmatism*), my own reading avoids superimposing one particular theoretical frame on the text. Instead I work with the concept of the contact zone and the idea of landscape as text in order to consider the potentially fertile juxtaposition and combination of perceptual frames that the nature writing genre allows. What arises in this contact zone is a dialogue with several cultural and scientific theories that in different ways shape our perception of the natural world. Whereas the idea of

landscape as text takes the natural-cultural contact zone as its starting point, my conceptualization of the contact zone includes *as part of this* the contact zone between the scientific and the aesthetic.

In my work on *Arctic Dreams* I uncover the interactions and dialogues of the contact zone by following Lopez's 'rambles' into (at least some of the major) cultural and scientific theories of the natural world that his text evokes. *Arctic Dreams* is a complex text, and in order to get a somewhat balanced view of what goes on within it, we have to stay with it through the various, oftentimes seemingly disparate and contradictory, frames of understanding and narrative threads. This becomes particularly important if we consider the way in which the criticism of Romantic texts traditionally involves sympathetic readings; attempts to respectfully seek out the 'spirit' in which the individual author has created his (or her) work (Harland 72; Kittang 18; Phillips 231). In the early critical reception of *Arctic Dreams*, this focus on the mind of the author overshadowed the existence of other perceptual frameworks present in the text, as well as the representation of the text's particularly arctic and material aspects. It is my contention that it is necessary to make a more inclusive analysis of the interactions between such different perceptual frames in order to detect the ways in which Lopez in this text challenges and/or deconstructs ingrained Western conceptions of animals and landscapes, time and space.

Remaining open to the full extent of the arctic natural-cultural, scientific-aesthetic contact zone presented in *Arctic Dreams*, I will add what Buell terms a 'nonfictionalist' dimension to my close reading of this text. With this I supplement or expand on former critical work on *Arctic Dreams*. A nonfictionalist reading is one that, unlike the fictionalist one,

presupposes that the persona's most distinctive trait is environmental proficiency It presupposes that the persona's chief rhetorical resource is exposition, that the metaphorical and tonal and meditative complications enriching exposition cannot be distinguished as the sole or even chief ways in which the text becomes artful, that the text's outer mimetic function is as important as its intertextual dimension, and that its selectivity is an instrument for promoting knowledge rather than suppressing it. (Buell *Environmental* 96-97)

In practice, this means that I include into my analyses precisely those long catalogues of scientific facts about the Arctic that former criticism on *Arctic Dreams* has tended to overlook. As these detailed descriptions center first on large arctic mammals and then on physical phenomena like ice and light, my perspective – as guided by the text – will be one

‘from the ground.’ It looks at how the details of the natural environment are represented, and how their representations contribute to the larger poetic vision of Lopez’s text. Where former critics have commented on the richness of scientific information about the Arctic in *Arctic Dreams*, I perform a formalist-inspired narratological analysis of how and where this information is presented, and to what effect. From there I go on to discuss the way this information informs Lopez’s aesthetics.

My analysis of the different frames of understanding that the text employs includes Western science and epistemology (as expressed both at the time of the publication of *Arctic Dreams* and in nineteenth-century explorer narratives), Inuit ontologies and epistemologies (associated with the activity of hunting), and aesthetic (often Romantic) frames of perception. Once these frames are activated within the text, they mediate and become part of the landscapes represented. Former critical work on *Arctic Dreams* has tended to list these frames, but without accounting for how they function together. This is a curious lacuna considering Lopez’s long engagement with anthropology and the visual arts, and his constant valorization of cultural perspectives other than our own (Lopez "Voice" 11-12). I will look at how these frames – as representatives of different forms of knowledge – structure the text’s conception of the Arctic and its landscapes.

My work places particular emphasis on the first half of *Arctic Dreams*, which contains detailed and highly scientific descriptions of the arctic physical environment and its animals. I have selected for close reading passages from this part of the text that demonstrate the activation of alternative and different perceptual frames that either exist within the framework of the text’s overall scientific narrative, or that modern social science has brought to our attention. The latter includes cultural perspectives in which the human relationship with the natural world is conceived in ways different from our own traditional outlook. In order to bring out these perspectives in my discussion of the text, I will rely on theories from anthropology and human geography, both of which are scientific fields that investigate the interface between nature and culture. Where relevant to the interpretation of the arctic natural-cultural contact zone presented in *Arctic Dreams*, I will also bring new materialist perspectives into my analyses.

An in-depth reading of the arctic aspects of *Arctic Dreams* needs to relate to another literary tradition significant to this text, both in terms of structure, thematic focus and generic descent. This is the tradition of arctic exploration literature. In its latter, more historical parts, *Arctic Dreams* refers to several such texts, spanning from the third century before Christ to

the early twentieth century. In my analysis, I have chosen two nineteenth-century arctic exploration narratives as basis for comparison with Lopez' text. These are William Scoresby's *An Account of the Arctic Regions With a History and Description of the Northern Whale-Fishery* (1820) and William Edward Parry's *Journal of a Voyage for the Discovery of a North-West Passage from the Atlantic to the Pacific; Performed in the years 1819-20* (1821).¹⁴ Both are listed as sources in the bibliography, and are texts that Lopez in different ways employs in *Arctic Dreams*' dialogue on the perception of the environment. Parry's and Scoresby's narratives are included into my dissertation as examples of how arctic space and arctic animals were represented in scientific narratives of exploration during the century in which nature writing developed at the crossroads of scientific and Romantic ideas about nature.

As we shall see in the following, the scientific lineage of nature writing, which Lopez with regard to the Arctic traces back to the mentioned exploration narratives, may in several ways be contrasted with its Romantic aesthetics and ideology. Only by looking at how *Arctic Dreams* combines scientific and Romantic depictions of arctic landscapes, and lets Inuit perspectives challenge both, may we perform a proper investigation of the ways in which the text transforms existing ways of representing this part of the natural world. In this sense what follows is an attempt to analyze *Arctic Dreams* according to the text's situatedness within the physical, material Arctic, as well as within the textual history of this region. Both of these are fields to which the text itself overtly refers.

Arctic exploration literature is filled with examples of how explorers had to abandon their plans and prospects because they suddenly found themselves "inextricably entangled with the nonhuman, no longer at center of the action" (Pickering 26; cf. Iovino and Oppermann 86). In the nineteenth century, the Western cultural response to nature's powers was to perceive them in terms of the aesthetics of the natural sublime. As our conceptualizations of the natural world change, it would only seem logical that so would our aesthetics. With this in mind, the last section of my analysis of Lopez's *Arctic Dreams* investigates the manner in which this text removes itself from the aesthetics of literary Romanticism and re-defines the idea of the arctic sublime.

¹⁴ Unless otherwise explicitly stated, all references to Scoresby are to *Volume I: The Arctic*.

From the more historical and philosophical sections of *Arctic Dreams* I have selected passages in which scientific description meets aesthetic representations of a more symbolic and/or transcendental nature. These more symbolic representations have their origin in the more literary parts of the old explorer narratives to which the text refers, or in the larger historical framework of Western culture. By investigating the relationship of *Arctic Dreams* to the Romantic literary tradition, I hope to reveal that aesthetic modes function within the terrain of culture much in the same manner that the geomorphic forces function within the terrains of the natural environment: as a foundational but slowly changing substratum that determines the life and expression of surface forms. Questioning Paul's implicit claim that to recognize the power of the imagination in forming our past conceptions about the Arctic is to perpetuate a Romantic understanding of the region, I will examine in more detail the attitude in *Arctic Dreams* to these past Romantic imaginings. With this I hope to shed some light upon the several ways in which this text can be read in terms of a simultaneous continuation of and *challenge to* the Romantic literary tradition.

My dissertation begins by tracing the lines of descent of *Arctic Dreams* back to the origin of nature writing in nineteenth-century exploration narratives, and by pointing to some of the similarities the text shares with the nineteenth-century arctic exploration narratives to which it refers: Parry's *Journal* and Scoresby's *Account*. In Chapter One I explore some of the generic traits of such exploration narratives in an arctic as well as in more southern North American contexts, and discuss how scientific and Romantic ideas and forms of representation meet in these hybrid texts. By exposing some of the basic characteristics of scientific and Romantic frames of perception, my opening chapter also elucidates the nature of that tension Dana Phillips claims exist in nature writing as a result of its simultaneous application of scientific and Romantic forms of description. Chapter in One in this sense serves as a background against which later discussions may consider not only how Lopez in *Arctic Dreams* tackles this tension, but also in what ways his text works to challenge or deconstruct some of the basic presumptions of Cartesianism. The mechanistic and reductive view of the land that Cartesian science entails is the subject of Chapter Two, which takes a look at the abstract representations of space in Parry's *Journal* and Scoresby's *Account*. The discussions of this chapter further concern how Lopez's *Arctic Dreams* through the inclusion of a plurality of narratives and maps takes issue with the authoritative chronicle and the definitive mappings of the arctic exploration narrative.

In Chapters Three through Six I turn my attention more directly towards *Arctic Dreams* and the authorship of Barry Lopez, and to the search for new and better relationships with animals we can find expressed in Lopez's early works of nonfiction. The first of these chapters looks at how Lopez lets the lives of animals define the landscapes of his Arctic, and how he applies a combination of field biology, *Umweltlehre*, and Inuit epistemology in order to move away from a mechanistic and reductive vision of these animals. The influence of Inuit ontology on Lopez's representation of the natural environment is also the topic of Chapter Four, which reveals how important the perspective of the indigenous hunter is both to Lopez's establishment of a *dwelling* perspective on the land and to his reading of the landscape as text. In Chapter Five I focus my analysis on how Lopez's combination of perspectives from Inuit ontology and Uexküll's *Umweltlehre* allows new interpretations of animal-environment relationships, and a new conception of arctic space. Chapter Six closes the discussion of Lopez's application of different scientific frames of perception by looking at the text's overt references to quantum physics. While the analyses of this chapter begin to consider the impact that the organicist models of quantum physics have on Lopez's poetic vision of the Arctic, the full significance of Lopez's evocations of quantum physics become evident only in later discussions on the arctic sublime.

The last two chapters of this dissertation pay homage to the work of literary critics who in the 1990s placed *Arctic Dreams* in a Transcendentalist tradition of American nature writing. They do so by analyzing how the text applies and reworks distinctly Romantic aesthetic modes of representation. Chapter Seven also explores how Lopez's role as narrator and poet in *Arctic Dreams* differs from the role of the poet in former Romantic texts. In Chapter Eight my investigations turn to how Lopez in *Arctic Dreams* reworks the nineteenth-century arctic sublime in a manner that meets the challenges of present-day alterations in the natural and cultural climate. Drawing on the analyses made in former chapters of the function of Lopez's scientific, anthropological and aesthetic descriptions of arctic landscapes, this chapter emphasizes the fact that Lopez's new arctic sublime is the result of the text's creative conjunction of these various forms of representation, and that Lopez's sublime is, as such, a child of the contact zone.

Chapter One: Tracing lines of descent: science, Romanticism, and exploration narratives

Lopez's *Arctic Dreams* has consistently been included in the canon of American nature writing. Whereas literary criticism in the 1990s focused on the text's Romantic and/or Transcendentalist heritage, recent ecocritical scholarship has centered more on its ecological qualities. In this chapter I provide an outline of the scientific and Romantic lineage of nature writing, and describe some of the tension that arises as scientific and Romantic perceptions and representations of the natural world meet in its hybrid texts. I further argue that nineteenth-century arctic and North American exploration narratives possess hybrid qualities similar to that of nineteenth-century nature writing, a fact that underlines the importance of including references to this tradition in further critical work of *Arctic Dreams*.

A comprehensive reading of *Arctic Dreams*, and one sensitive to the specifically arctic as well as intertextual aspects of this text, should in my view pay particular attention to the relationship of Lopez's text to the tradition of arctic exploration literature. The text itself actively engages with this literary tradition through a series of implicit and explicit references to arctic exploration narratives of the nineteenth and early twentieth centuries. The last chapters of the book give a thorough account of the history of exploration in the North American Arctic, and offer extensive reflections on the way in which arctic explorers presented the region in their chronicles. As Lopez in *Arctic Dreams* combines these reflections with scientific descriptions and his own phenomenological experiences of the landscapes he travels and the animals he encounters, we may argue that his text constitutes a physical and a cultural exploration of the Arctic.

Literary scholar and environmentalist John Tallmadge has defined exploration literature as "factual accounts of voyages of discovery written by the explorers themselves or by participants in their expeditions" (3). Arctic exploration narratives can be considered regionally specific expressions of the more general form of exploration literature that greatly influenced the emerging genre of nature writing. Accordingly, my exposition of nineteenth-century arctic exploration narratives and their relationship with Lopez's twentieth-century text of nature writing will draw on critical work done on arctic as well as on more general North American exploration literature. As examples of the former tradition I will in this and later chapters use the two early nineteenth-century texts that Lopez most frequently refers to and

has included as source texts in the bibliography of *Arctic Dreams*: William Scoresby's *An Account of the Arctic Regions With a History and Description of the Northern Whale Fishery* (1820) and William Edward Parry's *Journal of a Voyage for the Discovery of a North-West Passage from the Atlantic to the Pacific* (1821).

To uncover and explain the tensions that result as science meets Romanticism or Romantic ideals in the hybrid texts of nature writing (and in some exploration literature), I will in this chapter present some of the key aspects of Cartesian thinking and the way it has shaped modern Western perceptions about the natural world, its spaces and landscapes, and our place within them. I will also show how literary Romantics reacted to the Cartesian worldview by positing an alternative holistic vision of the world. After having established these two seemingly disparate Western perceptual frameworks, I will proceed to discuss how we may read both nature writing and exploration narratives as hybrid genres that to a greater or lesser extent combine a scientific outlook and scientific forms of representation with Romantic ideals and literary modes of writing. The brief introduction to Western Cartesianism and Romanticism given in this chapter also functions as a background against which it becomes possible to recognize the presence and influence of other cultural and epistemological frameworks of perception at play within the textual contact zone of *Arctic Dreams*. By looking at maps, landscapes, and taxonomies in terms of Western scientific forms of perceptual framing, the present chapter prepares the ground for later analyses of alternative frameworks at play even within the apparently most scientific or Romantic parts of Lopez's text.

Science, exploration, and nature writing

"Nature writers," Finch and Elder write in their introduction to the *Norton Book of Nature Writing*, "are the children of Linnaeus" (19). Thus they place the origin of nature writing within the tradition of geographic and scientific exploration. Finch and Elder explain the early prominence of nature writing in America with the need for exploration and scientific description of the natural phenomena of this newly opened "diverse, abundant continent" (20). Michael A. Bryson has argued that in the exploratory mood of mid-nineteenth-century United States, science "denoted 'action'" and facilitated the nation's "engagement with the frontier" (3). This was the century of the professionalization of the scientist; the century in which science developed away from the merely qualitative description of natural landscapes

towards technologically aided quantitative mappings and descriptions presenting knowledge in the form of data sets (Bryson 4).

In Bryson's interpretation, the scientific investigation of the 'new' continent provided the scientist or 'naturalist' not only with new knowledge about the natural world opening up before him, but also with a kind of connection born from the experience of direct and prolonged contact with this world. Thus whereas the scientist or naturalist might be aware of the manner in which his scientific endeavors were subordinated to "overarching goals of political and geographic conquest," Bryson argues, the "observations and measurements done in the field, away from the protected and artificial confines of the laboratory and out in the unpredictable and physically challenging western wilderness, [served to] connect the explorer-scientist with nature" through the provision of "detailed, useful, and intimate knowledge of the land" (6).

Perhaps it is because science is able to offer this kind of "detailed, useful, and intimate knowledge of the land" that nature writers openly announce and in their texts disclose a distinctly scientific inclination. As the work of Donald Worster and Laura Dassow Walls has shown, seminal nature writer Henry David Thoreau late in his career became a "self-educated naturalist" and "competent field ecologist" who considered the scientific identification of the plants and animals of his Concord surroundings to be of great value (Worster 60). "In the mere task of naming them," writes Worster, Thoreau discovered "'a distincter recognition and knowledge of the thing named' – an extension of his circle of acquaintance" (Worster 60; quotation from Thoreau's *Journal* August 29, 1858). Thus although Thoreau in one of his *Journal* entries asserts that he never studied botany systematically, finding even "the most natural system ... still so artificial," he nevertheless thought the scientific naming and description of plants and animals useful to his project of learning to "know my neighbours, if possible, – to get a little nearer to them" (Thoreau *Journal* December 4, 1856).

At the same time that science in this manner allows the scientist, naturalist, or nature writer to "get a little nearer" to the natural environment and its denizens, it also forges a dissociation with the natural world that is precisely what Lopez and other nature writers aim to overcome. In *Arctic Dreams*, as in other texts of nature writing, the reliance on modern science seems to exist in contradiction to the text's pastoral impulses.

Modernity and science

Much like the American West, the Arctic represented in the nineteenth century simultaneously a geographical frontier and frontier of knowledge. In both regions, the expanding frontier marked the expansion of natural science and its mother and ally: modernity. In *We Have Never Been Modern*, Bruno Latour postulates that modern Western culture understands itself to be the only culture to possess the ability to “differentiate absolutely between Nature and Culture, between Science and Society” (99). Our society alone, we believe, mobilizes “not ... an image or a symbolic representation of Nature, the way the other societies do, but Nature as it is, or at least as it is known to the sciences” (Latour *Modern* 97). Because the exact modern sciences are presumed to study nature ‘as is,’ the knowledge they produce is thought to belong to nature, rather than to culture, and to remain ‘untainted’ by the confusion of conflicting ideas, opinions and interests that characterize the social aspects of human life. As objective science on the basis of this differentiation seems to have granted us knowledge about the natural world as well as the world of other cultures, it has for centuries gone more or less unquestioned as a tool of knowledge “unstudied, unstudiable, miraculously conflated with Nature itself” (Latour *Modern* 97). In this manner, Latour argues, modernity has come to find its definition through the association with science.

Latour identifies science as fundamental to Western culture’s conception of its own modernity, while simultaneously dismantling the idea that our society has been able to disassociate nature from culture. Written from the perspective of science studies in the early 1990s, *We Have Never Been Modern* reveals the way the supposedly objective sciences have always been caught up in messy networks of interlinking materiality and sociality. Latour’s text may be read as part of a cultural critique of science and its Cartesian foundations that were gaining in strength just at the time Lopez published his *Arctic Dreams*. The emerging critique of Cartesianism revealed this line of philosophical thought to be the product of historical circumstance. In 1987 Susan Bordo argued for the “historical nature of perception,” presenting evidence according to which “our own perspectival norms of perception, which presuppose the dominance of a sense of ‘psychic distance’ between subject and world, are a cultural product” (62). A few years later, philosopher Stephen Toulmin provided a historical critique in which he discussed the tremendous influence the Cartesian distinction between *rational freedom* and *causal necessity* has had on Western thinking, and revealed it to be the result of the context of the great religious violence and economic depression in which it emerged (Toulmin). More recently, critical ecological feminist Val Plumwood has

exacerbated the charges against the modern Western “culture of reason” by coupling the current ecological crisis with “what the dominant global culture has made of reason” (Plumwood 5).

The kind of critique launched by thinkers like Latour, Bordo, Toulmin, and Plumwood deconstructs the rational and scientific master narrative of modern Western culture, allowing for the existence of alternative perspectives on the natural world. As Plumwood asserts, alternative perspectives may offer less alienating, more ethical, and at the present historical moment also more *rational* models for human understanding and relationship with this world (11). The next few chapters will investigate how *Arctic Dreams* promotes perspectives of arctic natural environments that challenge the Western scientific worldview by reworking culturally established dualisms between mind and body, object and subject, materiality and sociality. To recognize the challenge these perspectives pose to the scientific worldview, we must first take a look at some of the basic assumptions and concepts of Cartesianism.

The quest for purity and certainty

The Cartesian philosophy on which modernity rests sought above all else to establish “clear, distinct and certain” foundations from which rational thought could find new ground protected from the disrupting influences of metaphysics or theology (Toulmin 72). This quest for the untainted absolute ground for human knowledge has remained part of modernity until the very present (Toulmin 72; Bordo 4). According to Toulmin, it was the tumultuous historical situation in which René Descartes found himself that led him to be so critical of perspectivism (72). In his search to establish a common ground for the emerging sciences, untainted by religious and political strife, Descartes turned to mathematics. Finding in Euclidian geometry both the ‘clear and distinct ideas’ and the logical necessity his rational method prescribed, Descartes argued for the appositeness of geometry as foundation for the sciences by claiming its ideas to be universal, timeless and available to all men, presumably having been implanted in us by a benevolent God (Toulmin 177).

The natural philosophy that arose in the seventeenth century was thus, as Toulmin claims, “first and foremost, a pursuit of mathematical certainty; the search for experimental support and illustrations was secondary” (Toulmin 130). The logical systems of the new science, as well as their basis in shared, basic concepts, were only possible to arrive at by relinquishing inherited systems of thought *as well as* the concrete physical context from which the basic concepts could be abstracted. The new science thus defined itself as

completely emancipated from “the very diversity and contradictions of traditional, inherited, local ways of thought” which their humanist predecessors had so greatly valued (Toulmin 177).

The necessity of purity demanded what Bordo calls the “disentangling of the various objects of knowledge *from* the whole of things,” so that each object might be perceived in its “pure and discrete” form (76). The field in which the pure and discrete objects of modern science existed was space: the abstract and featureless mathematical space of geometry. This featureless space allowed the shape, relative positions and movements of objects to be examined in their pure form and according to universal laws. It was the space of logic and reason, the space where the intellect served the task of ordering the world. This mathematical space was related to the spaces of the real world through the universal laws it helped to disclose.

The pure and abstract space of science also demanded purity in the observer operating this system. Only to the extent that the observer was able to transcend his (or her) body, the source of all “bias,” “perspective,” and “emotional attachment,” would he (or she) be able to unveil the objective and “privileged representations” of science (Bordo 76). Impersonality in this way became the mark of the truly known (Bordo 95). The single human faculty presumed to be sufficiently detached from all subjectivity and all bodily ties to provide this impersonal and objective perspective was vision. Accordingly, modern science, like modern perception of space, became associated with the idea of a disembodied, invisible and omniscient observing ‘I’ whose “all-seeing ‘eye’” (Walls *Seeing* 204) simultaneously ordered what it observed and acted as guarantor for the objectivity of its observations.

To the extent that the findings of this disembodied observing ‘I’/eye had to be communicated in the material or embodied form of writing, the strictly logical language of mathematics was preferred. In cases in which this proved impossible, scientific findings should be communicated in a form of prose that proved the mediation between natural fact and rational thought to have proceeded directly and unrestrictedly, and to be untainted by emotional or relational entanglements. Because the facts and laws of nature were evidenced in nature itself, the act of their discovery was presumed to be “essentially passive”: “anyone,” as Walls puts it, “could have stumbled across” them (*Seeing* 202). Accordingly, the role of the scientist or other ‘discoverers’ of scientific facts was to act as “transparent intermediary” between the object in nature and the fact represented (Walls *Seeing* 202).

Cartesian reasoning thus differed from former lines of thinking in defining the lack of relational entanglement as a sign of objectivity. This “quest for objectivity,” Bordo argues, is what led scientifically inclined early moderns to interpret the recently discovered vast, “alien, impersonal nature of the infinite universe – that wasteland of meaninglessness, that terrifying, cold expanse” in terms of a “paradise of analysis, dissection, and ‘controlled’ experimentation” (77-78). Second only to the “alien” and “impersonal” “cold expanses” of the celestial landscape, one could imagine, would be the landscapes of the Arctic and Antarctic regions. Lopez’s *Arctic Dreams*, however, blocks the interpretation of the Arctic as featureless space allowing the controlled, complete, and objective examination of natural phenomena. As the narrative proceeds, it becomes evident that the very nature of Lopez’s Arctic challenges the validity of scientific forms of observation and knowledge production.

Space, maps, and landscapes

Modern Western cultural conceptions of space are profoundly influenced by the abstract and mathematical space of science. They further have a long-standing tradition of associating the spatial with representation – and with “the fixation of meaning” (Massey 20). “Representation,” writes geographer Doreen Massey, “is seen to take on aspects of *spatialisation* in the latter’s action of setting things down side by side; of laying them out as a [timeless and] discrete simultaneity” (23). The association with spatialization turns space into a synchrony of isolated entities whose processes of development are arrested for the purpose of investigating the structures of their relationship. Western space, Massey thus argues, is structuralist space; space as the antithesis of life; space which “tells of an order in things” (106). Such an order is exactly what modern cartographic maps and taxonomic systems present us with.

In maps, the geography of places is reduced to the flat and continuous surface of representation. Maps present “space you can walk across”; space as “a coherent closed system” (Massey 106). It hides the dynamic aspects of place and reduces the different nature of other geographical places to differences in positioning within an abstract system of mathematical coordinates. On maps, each place exists as a bounded and internally coherent entity “defined by [its] difference from other places which [lie] outside, beyond [its] borders” (Massey 64). According to Massey, this “modern, territorial, conceptualization of space” is based on the principle of identity through isolation (68). And because there is no time dimension to this conceptualization, isolation implies passivity. Places on the map have no

history, no development and no evolving relationships, and hence cannot be *meeting* places (Massey 68). The only way to reimagine this static, isolationist conception of place, claims Massey, is to reimagine things in terms of processes; in terms of “the continuous becoming which is in the nature of their being” (Massey 21).

Modern conceptions of abstract space also made its way into the visual arts. In response to what he characterized as a “revival” of the concept of landscape among human geographers, geographer Denis Cosgrove in 1985 wrote an essay on “Prospect, perspective and the evolution of the landscape idea” (45). In this essay Cosgrove countered the tendency of human geographers to interpret landscapes in terms of “texts” “authored” by humans (45) with a reminder that in its origin, as well as in current applications of the term, landscape is associated with “a *way of seeing*”: it is “a visual term, one that arose initially out of renaissance humanism and its particular concepts and constructs of space” (46). The term landscape, in other words, involves certain relationships between humans and their environment that Cosgrove wishes us to become aware of.

According to Cosgrove, landscape painting gives the artist the power to establish not only the frame or scope, but also the “arrangement or composition, and thus the specific time,” of the representation (Cosgrove 48). The artist’s eye determines the shape of the world according to its own location, and in this sense becomes both center and *sovereign* of a visual world in which it does not take part. These observations lead Cosgrove to conclude that landscape represents “a composition and structuring of the world so that it may be appropriated by a detached, individual spectator to whom an illusion of order and control is offered through the composition of space according to the certainties of geometry” (Cosgrove 55). He argues that visual artists employing the linear perspective to organize and control the geometry of their landscape paintings achieve visually and ideologically the same kind of control and domination over space as do navigators and mapmakers charting the unknown borders of the modern world. Like the map, the concept of landscape that arose in the tradition of landscape painting is associated with a “visual ideology” of control and possession (Cosgrove 55). Unlike the map, landscape painting offers an artistic aesthetic entrance *into* the natural world at the same time as it distances the viewer *from* the very reality of that world (Cosgrove 55).

That the concept of landscape is of significance to our discussion of *Arctic Dreams* is evident both in the text’s thematic focus on how human beings relate to landscapes known and unknown, and in the way the subtitle defines the North-American Arctic in terms of a

“*Northern Landscape*.” But to what extent does Lopez’s use of the term landscape follow a traditional interpretation? Jen Hill has suggested that one of the aims of *Arctic Dreams* is to overcome modern Western abstractions in representations of the Arctic (“Barry Lopez” 132). Indeed, as the next chapter will reveal, Lopez in *Arctic Dreams* engages with contemporaneous and recently developed conceptions of landscape emerging from the field of human geography. Discussions of the way in which the text’s depictions of animals and physical landscapes contribute to less purely visual, less reductionist and less distancing representations of the Arctic, and to Lopez’s re-worked concept of landscape, are also central to this dissertation. These issues will be treated in more detail in chapters to follow.

Taxonomy – mapping animals and plants

Among the natural entities ordered by the emerging sciences into abstract systems of spatial relations we find not only geographical places, but also living entities like plants and animals. By the end of the eighteenth century, Linnean taxonomy had transformed the practice of natural history into a “cohesive social enterprise” supported by a network of scientific institutions, museums and botanical gardens, and disseminated by what philosopher of science Phillip Sloan describes as “a cadre of evangelical pupils who devoted their lives – at times literally – to its prosecution in all parts of the globe” (121). The reason for the success of the Linnean system lay partly in its scope, partly in its applicability. For whereas classificatory systems already existed for both flora and fauna, only the Linnaean united animals, plants and minerals into a single cohesive system. This system also provided, in an orderly and applicable manner, the characteristics by which such entities could be described and classified – no matter their geographical origin and whether or not they were previously known to science (Sloan 121; Pratt 24, 34). In this manner “making order out of chaos” (Pratt 25) – the chaos of nature as well as the chaos of earlier classificatory systems – Linnaeus greatly aided the development of what Pratt describes as an emerging European “planetary consciousness”: a great system of knowledge-building that aimed for “the construction of global-scale meaning through the descriptive apparatus of natural history” (15).

The new forms of classification of natural history represented an expansion and elaboration of the “construing [of] the planet” in which navigational expeditions had already been involved for three centuries (Pratt 29). After the Linnean and other systems of classification had, by the mid eighteenth-century, coalesced into the discipline of “natural history” (Pratt 28),

[a]longside the frontier figures of the seafarer, the conqueror, the captive, the diplomat, there began to appear everywhere the benign, decidedly literate figure of the ‘herborizer’ [or natural historian], armed with nothing more than a collector’s bag, a notebook, and some specimen bottles, desiring nothing more than a few peaceful hours along with the bugs and flowers. (Pratt 26)

Seemingly benign and peaceful figures, these Linnaeans nevertheless participated in the colonial enterprise. Where navigators had previously traced and mapped the world’s coastlines, natural historians also covered the land beyond (Pratt 37). Through these men’s quiet labeling and classifying, plants and other living beings were disentangled from the messy web of place-based local relationships and placed in taxonomic systems that presented them in their pure and discrete form. Once this form was established, the plant or animal ‘quite naturally’ found its place within an abstract logical system of relationships of descent (the ultimate origin of form) transcending its own experience of place and time. From the natural historian’s point of view, this represented the foreign life-form’s movement from the chaos of “its particular, arbitrary surroundings” and into an intellectual, and therefore stable, human-made order (Pratt 31).

The new systems of order introduced by science also offered the naturalist, personally, the advantage of feeling at home wherever he traveled. “The (lettered, male European) eye that held the system,” Pratt writes, “could familiarize (‘naturalize’) the new sites/sights immediately upon contact, by incorporating them into the language of the system” (31). Scientific description, then, simultaneously ensured the naturalist knowledge of a vast world slowly opening up before him, and an apprehension of relationship even to its most distant parts.

This does not mean that systems of classification like the Linnean went unquestioned. As early as the mid-eighteenth century French naturalist Comte de Buffon critiqued the way the Linnaean system “required the placement of real, existent entities under abstract universals on the basis of a flimsy presumption of distinguishable essential differentiating characters” (Sloan 128). More serious than the charges of presumptuousness involved in the Linnaean’s arbitrary selection of defining traits, however, was Buffon’s claim that the abstract and mathematical truth posited by their system represented a connection of *ideas* with little or no connection to the concrete truth expressed in the connection and constant repetition of real *physical events* (Sloan 128-29). Similarly, from a local or place-based point of view, the

Linnaean ordering of the world appeared to sever the “networks of historical and material relations among people, plants, and animals wherever it applied itself” (Pratt 31).¹⁵

As subsequent post-colonial inquiries like Pratt’s have revealed, natural historical accounts of foreign lands tended to represent its landscapes in asocial terms as “uninhabited, unpossessed, unhistorized, [and] unoccupied even by the travelers themselves” (Pratt 50). From the position of the transcendent and undetectable knower, these narratives asserted an “an urban, lettered, male authority” over the natural world, and a “rationalizing, extractive, [and] dissociative understanding” of it (Pratt 37).

Critics working on travel and exploration narratives in general (like Gillian Beer and Mary Louis Pratt) and of the Arctic in particular (like Jen Hill, Lisa Bloom, and Michael A. Bryson) have argued for a range of ways in which geographic and scientific exploration was in the nineteenth century still implicated in Western imperialism. As Gillian Beer puts it, although these explorations were

not part of that unconcerned predation that earlier centuries justified as exploration or discovery, they were nevertheless an expression of the will to control, categorize, occupy, and bring home the prize of samples and of strategic information. Natural history and natural future were closely interlocked. And natural history was usually a sub-genre in the programme of the enterprise, subordinate to the search for sea-passages or the mapping of feasible routes and harbours. (59)

The scientific description of new lands, plants and animals was, in other words, part of the larger enterprise through which modern Western society inscribed the world beyond Europe into its own systems of understanding, thereby allowing this world to emerge in recognizable forms within already established sociocultural frameworks of perception. And whereas maps and taxonomic systems represented the land and its living beings as points in spatialized and static systems of order, these static representations often provided the basis for dynamic future developments and strategic investments in the land (Bryson 14).

The generally non-intrusive nature of scientific exploration of foreign worlds nevertheless allowed this scientific appropriation of the world to be interpreted as utterly benign. Although science might well be applied in the promotion of imperialist expansion and exploitation, it was presumed to be in nature innocent of all such motivations and to represent

¹⁵ In *Arctic Dreams* Lopez performs a parallel critique directed not primarily at scientific but at *cultural* ideas he finds to have little or no connection to the concrete realities of arctic landscapes and animals.

a contrast to other and more direct forms of imperial conquest; a form of “*anti-conquest*” (Pratt 38). Especially in the Arctic, the “expansion and the conquest of ‘empty’ lands in the name of science” was perceived as a peaceful endeavor without associations with more violent and oppressive forms of “self-interested colonialism” (Spring and Schimanski 18). However, we need only to look at one of the nineteenth-century arctic narratives to which Lopez refers, William Scoresby’s *An Account of the Arctic Regions*, to obtain evidence of the way in which the representations and systematizations of science were intricately entangled with ideas of appropriation and the economic exploitation of natural resources.

A regional example: Scoresby’s “Fauna Arctica”

William Scoresby’s *An Account of the Arctic Regions* provides an apposite example of how the modern scientific ‘planetary consciousness’ Pratt describes could express itself in an arctic setting. As part of his *Account* Scoresby includes a chapter on the “Hydrographical Survey of the Greenland Sea,” in which he offers erudite contemplations on the uniformity and interconnectedness of the world’s oceans, and establishes a model of the “hydrography of the globe” of which the Greenland Sea becomes part (Scoresby 170, 172). As we shall see later, Scoresby’s perception of this global hydrography allows him to formulate a beginning ecological model of life in the Greenland Sea. Of more immediate importance to his contemporaries, however, was how Scoresby applies his knowledge of global ocean systems to make some rather broad opening “Remarks on the celebrated question of the existence of a sea communication between the Atlantic and Pacific Oceans, by the North” that had given impetus to arctic exploration for centuries (1). Based on a range of evidence, including the force and direction of ocean currents, and of observations of the presence of driftwood and of whales marked by attempted hunts, Scoresby concludes in favor of such a ‘sea communication’ also in the northwestern part of the American Arctic. And although Scoresby ends his ‘remarks’ by asserting his opinion that such a passage would not be open for navigation every year, and in those fortunate years only open for eight to ten weeks during the summer season (21), Scoresby’s *Account* nevertheless provides the empirical support that allows the Royal British Navy to continue its search for a North-West Passage for decades to come.

The zoology section of Scoresby’s *Account* similarly makes arctic animals part of the global order of taxonomy. Scoresby opens this section by specifying that the animal descriptions it offers are “not intended as a systematic Fauna Arctica, but merely as the

skeleton of such a work; consisting almost solely of original observations on, and descriptions of, the more remarkable animals inhabiting or frequenting Spitzbergen, and the adjacent seas” (Scoresby 446). Animals that “have already been well described” or are “familiar to almost every one” are merely listed, perhaps with the “occasional remark, illustrative of their habits or characters” (Scoresby 446). Thus only animals of novelty, and hence of value, to science are offered attention in Scoresby’s “Fauna Arctica.”

Scoresby’s focus on the “more remarkable” animals is complemented by an insistence on empirical observation. This insistence is closely connected to Scoresby’s aspiration not merely to fill in existing knowledge gaps about the arctic fauna, but further to correct a series of straight-out erroneous descriptions of arctic animals, particularly arctic marine mammals. This involves correcting faulty representations originating in century-old myths and superstitions as well as in the general tendency of writers to present their readers with images “calculated to afford the greatest surprise and interest” (Scoresby 450). Accordingly, Scoresby takes two “step[s] towards an improved system of Cetology” (Scoresby 447): he engages in critical discussions on the taxonomic systems available to him (those of Carl von Linné and Bernard Germain de Lacépède [or La Cepède]), *and* he confines his engravings and descriptions to “those animals which have come immediately under my own examination, or have been sketched by persons on whose accuracy and faithfulness I could fully depend” (Scoresby 447). Reliable eyewitness accounts are, in other words, vital to the legitimacy of the scientific descriptions Scoresby offers. Thus in Scoresby’s *Account* early authoritative texts as well as more recent scientific systematic descriptions must yield to empirical evidence, which holds the power to correct and clarify previously jumbled and erroneously sketched animal representations and systems of taxonomic lineage. Scoresby’s disavowal of old historical descriptions may be thought of in terms of a Cartesian withdrawal of science from images of the Arctic and arctic animals doubtlessly informed by religious conceptions of this margin of the human world. His critical reworking of more recent taxonomical efforts, on the other hand, forms part of a new scientific dialogue endeavoring to achieve the precise placement of animals within the new and spatialized world order of science.

What, then, characterizes Scoresby’s revised and presumably scientifically accurate descriptions arctic animals? Although Scoresby’s *Account* provides occasional descriptions of animal behavior, his “Fauna Arctica” sketch presents primarily *taxonomic* representations of animals as lifeless objects. Another general feature of this zoological section is that animals are offered attention according to their scientific or commercial worth. With great experience

in the arctic whale fishery, it seems only natural that Scoresby should open his “Fauna Arctica” with “*A Description of Animals, of the Cetaceous Kind*” (449). The first whale to be described is “*The Whale by way of eminence*”: “*Balæna Mysticetus:- The Common Whale, or Greenland Whale*” (Scoresby 449), later also called the bowhead whale: the most commercially valuable of all arctic mammals (AD 4). In the thirty pages dedicated to the description of the bowhead whale, Scoresby offers detailed morphological characteristics of this animal for the sake of systematization, including body shape, bone structure and coloring. We are also given information about the nature and location of the commercially valuable blubber and whalebone, along with descriptions of the range of yield expected for each of these products. The text offers a table of average “Length of whalebone in feet” versus “Oil yielded in tons” – complete with comments on exceptions to these average values (Scoresby 462). And whereas these morphological descriptions are supplemented by descriptions of the Greenland whale’s behavior (its feeding behavior, time of mating and length of rearing of young), of its geographical range and likely natural enemies, the major part of the description presents the *singular* animal – the animal as type.

Other species of whales, less commercially valuable and more difficult to catch, are offered a mere few pages. Only the scientifically interesting narwhal, causing taxonomic confusion and harboring the mystery of the purpose of the tusk, (not to mention the fact that it yields some “very fine oil”) is also described in some length (Scoresby 492). Generally, all animals, including seals, walruses and birds, are described through a combination of information about morphological characteristics, the relative difficulty in shooting or harvesting them, the amount of commercially valuable products they yield, or their taste and general value as food. In the case of seals and walruses Scoresby further provides a history of harvesting and a description of (rather brutal) harvesting practices. The second volume of his *Account* gives a similar “*History and Description of the Northern Whale Fishery.*” Thus we find the scientifically accurate and corrective plates of arctic marine mammals included in the appendix section of the second volume to be immediately followed by a series of plates of “Instruments” and “Apparatus” used in killing and utilizing these very animals.

The fact that Scoresby’s “Fauna Arctica” sketch is placed within a text that also gives detailed accounts of the harvesting techniques and equipment of the whale fisheries causes the link between the scientific representation of animals and their economic utilization to become particularly conspicuous. The “Fauna Arctica” sketch nevertheless represents the kind of detailed, methodical and erudite scientific account of animals found within nineteenth-century

arctic exploration narratives. Although exploration narratives further south on the American continent perhaps offered somewhat less obviously instrumentalizing accounts of animals and plants, the very act of representing living beings in the language and systems of science seems nevertheless to enforce a reductive and decontextualizing understanding of them that was, and continues to be, highly problematic to nature writers sympathetic to Romantic ideas and ideals.

The Linnean (or scientific) descent of nature writing signals a prolongation of a cultural attitude associated with modern colonial expansion and alienation from the natural world that is precisely what nature writing aims to overcome. This creates within texts of this genre a tension born from the genre's peculiar combination of scientific facts and a Romantic form of critical self-conscious reflection on modern human relationship with the natural world. This critical reflection includes not only the individual's personal relationship with the natural world, but also broader perspectives on the way "*human history is implicated in natural history*" (Buell *Environmental* 7). The fact that these broader perspectives owe much to the development of the scientific systems that have nurtured the emerging 'planetary consciousness' of modern Westerners does not block science itself from being the object of this critical reflection. Like the Romantic literary tradition in which it also has its roots, nature writing harbors an ambiguous and (sometimes slightly, sometimes radically) critical attitude towards science. This is exemplified in Lopez's *Arctic Dreams* as well as in Henry David Thoreau's "The Succession of Forest Trees," both of which play with, critically inspect and/or challenge the tenets and concepts of science in order to investigate how they contribute to the Western individual's personal and cultural relationships with the natural world.

Romanticism as reaction against science

According to literary scholar M.H. Abrams, Romanticism represented an

attempt to revitalize the material and mechanical universe which had emerged from the philosophy of Descartes and Hobbes ... It was at the same time an attempt to overcome the sense of man's alienation from the world by healing the cleavage between subject and object, between the vital, purposeful, value-full world of private experience and the dead postulated world of extension, quantity, and motion. (*Mirror* 65)

Although the Romantic movement has in retrospect been charged with escapism or lack of social engagement due to its focus on self-consciousness and (for the Transcendentalists)

spiritual self-examination, critics like Jonathan Bate and Peter Mortensen argue that the Romantics expressed ecological concerns both anticipating and influencing elements of the modern environmental movement (Bate 5-8; Mortensen 67-68). Concerned with the environmental degradation that followed as a result of the great Enlightenment project of modernity and its ever-increasing industrialization, the Romantics argued against the conception of nature as object and resource, and maintained that humans are part of the earth, and of its ecology (Mortensen 74, 85). Against the Cartesian divide between mind and matter, human and nature, they posited a holistic view of the world (Mortensen 69).

The Romantics believed the “vigor and spontaneity” of nature to express the free and uninterrupted order of the world, as originally intended by God, the Universal Being, or other imagined figurations of the primary cause of the world (Buell *Transcendentalism* 146). “[T]he unity of Nature, – the unity of variety,” writes Ralph Waldo Emerson in his essay “Nature,” “meets us everywhere” (Emerson *Nature* 21). “A leaf, a drop, a crystal, a moment of time is related to the whole, and partakes of the perfection of the whole. Each particle is a microcosm, and faithfully renders the likeness of the world” (Emerson *Nature* 21). Accordingly, in their dream of postindustrial reintegration with the living universe, the Romantics turned their focus to the place of the human within a unity that was figured in terms not of a machine, but of “a living organism created by divine providence” (Oelschlager 99).

Central to the Romantic perception of man’s place within the larger unity of nature was the figure of the poet-prophet. According to Wordsworth, the task of the poet-prophet was to consider “man and the objects that surround him as acting and re-acting upon each other”; “man and nature as essentially adapted to each other, and the mind of man as naturally the mirror of the fairest and most interesting qualities of nature” (“Preface” 258, 259). The dialogic engagement of mind and matter Wordsworth delineated was to become the hallmark of Romantic poetry. This engagement had its ultimate cause in a metaphysical correspondence between nature and spirit. To the religiously devoted American Transcendentalists, God was the source of this correspondence.

The mind’s engagement with matter had an important aesthetic dimension, for the Romantic poets believed that only through an aesthetic awareness of nature could “the brooding presence of the whole,” or alternatively God’s presence in the world, be revealed (Whitehead 108; cf. Oelschlager 99). In this sense the aesthetic acted as a link between the physical and the spiritual (Abrams *Natural* 88). The perception and communication of the

presence of the ‘whole,’ or God, demanded of the poet not only a “more than usual organic sensibility” towards the world itself, but also a sensibility towards and ability to communicate that “spontaneous overflow of powerful feelings” that resulted from the dialogic interaction between the sense impressions of the world and the poet’s profound and continued thought (Wordsworth "Preface" 246).¹⁶ To this challenging task the poet-prophet claimed fitness by “invoking and claiming divine inspiration” (Abrams *Natural* 23).

The following quotation from Emerson’s “Nature” expresses how the spiritual could suddenly reveal itself in the experience of the natural world. As he is crossing a snowy commons in twilight, Emerson notes how

[s]tanding on the bare ground – my head bathed by the blithe air, and uplifted into infinite space – all mean egotism vanishes. I become a transparent eye-ball; I am nothing; I see all; the currents of the Universal Being circulate through me; I am part or parcel of God. ... I am the lover of uncontained and immortal beauty. In the wilderness, I find something more dear and connate than in streets of villages. In the tranquil landscape, and especially in the distant line of the horizon, man beholds somewhat as beautiful as his own nature. (Emerson *Nature* 4)

In this rapture-like state, in which Emerson reports that he is “glad to the brink of fear” (*Nature* 4), the particularities of the material world yield to the experience of a transcendental union with God. The boundaries of the ego dissolve to let in the experience of partaking in the primal forces of life, those “currents of the Universal Being” readily interpreted to represent God’s creative powers. To Emerson, reaching this sense of unity was the ultimate aim of poetry, and an expression of the sublime.

Because the Romantics sought expressions of the ultimate unity of the world, they were skeptical of the way science turned the world into abstractions and worked to “create distinctions” (Wordsworth *Prelude* II.217), including the distinction between the human and the natural world. They further accused science of advancing the kind of “[s]ingle vision” that, together with habituated modes sensation, reduced the mind to the slavery of merely material objects and caused a state of spiritual “sleep” or “death” (Abrams *Natural* 377). This skepticism towards science is expressed in Wordsworth’s claim that whereas “[t]he Man of Science seeks truth as a remote and unknown benefactor ... the Poet, singing a song in which

¹⁶ The organic sensibility in combination with discursive mentation Wordsworth here prescribes for Romantic poets may be read as a forerunner to nature writing’s ‘dual accountability,’ but one in which the focus is on the poet’s sensibility of the natural world rather than on his accurate presentation of its ‘natural facts’, and on a ‘discursive mentation’ that leads towards the metaphysical realm of the Ideal.

all human beings join with him, rejoices in the presence of truth as our visible friend and hourly companion” (Wordsworth "Preface" 259). Science, Wordsworth believed, was a form of knowledge too absorbed in abstractions to account not only for the “the concrete facts of our [human] apprehension” of natural phenomena, but also for the profound presences and underlying unities of the natural world (Whitehead 104). Accordingly, it was left to the Romantic poet to act as “the rock of defence of human nature; an upholder and preserver, carrying every where with him relationship and love” (Wordsworth "Preface" 259, sic.)

The Romantics saw poetry as a means of overcoming the perceptual state of ‘death-in-life,’ and of attuning to the underlying unities of the world. Concerned with “affective immediacy,” they posited against the scientific image of nature “devoid of taste, sight, sound, and feeling,” their own poetic image of nature as “alive, subjective, capricious, a riot of colors and sounds, and as source of aesthetic delight” (Oelschlager 113). Unlike the strictly realist and reductive representations of science, the lyrical mode of writing that the Romantics applied in their evocations of nature comprised musical as well as visual aspects, and made extensive use of tropes and figures. These allowed the significance of the written word to transgress the purely referential, and endowed the language of the narrative or poem with rich and seemingly mysterious layers of significance (Janss and Refsum 31-2). A highly subjective and associative mode of writing, lyrical poetry was to Wordsworth the genre best suited to express the individual’s ‘overflow of feelings’ in meeting with the natural world (Janss and Refsum 23). It also permitted the poet to evoke a sense of immediacy and closeness with the objects under description that scientific representations lacked, and that seemed at one and the same time both subjective and universal (Janss and Refsum 15).

The Romantics believed the poet to be uniquely qualified for the task of interpreting the metaphysical correspondence between nature and spirit. Unlike the scientist, the poet followed “the method of nature herself: he [was] guided by inspiration rather than logic, and expresse[d] his thought in the form of images” rather than reducing it to fit the language and order of abstract rationalistic systems (Buell *Transcendentalism* 149). By treating things “not as they *are* ... but as they *seem* to exist to the *senses*, and to the *passions*,” poetry could come to express “the spirit of genuine imagination” and lead to a re-awakening of human perception (Wordsworth, qtd. in Abrams *Mirror* 299). Thus whereas the farmer and laborer saw in a landscape only his own field and its use value, and the individual scientist studied in great detail only certain aspects of the natural world, the poet contemplated nature in its entirety.

“There is a property in the horizon,” Emerson writes in his seminal essay “Nature,” “which no man has but he whose eye can integrate all the parts, that is, the poet” (3).

Romanticism as endorsement of science

The focus in literary Romanticism on the poetic imagination and on the genius of the individual poet may well be read as a reaction to the limitations and reductionism of the scientific worldview. Yet as an increasing body of critical work now reveals, some Romantic poets were fascinated by the emergence of the new sciences, and sought ways to incorporate it within their more holistic poetic visions. Wordsworth’s characterization of the Man of Science, for instance, should not be read as a mere dismissal of science as a source of profound and important knowledge. For his characterization is immediately followed by an acknowledgement of the possibility that scientific knowledge will in the future become more integral to human understanding of the natural world:

If the labours of men of Science should ever create any material revolution, direct or indirect, in our condition, and in the impressions which we habitually receive, the Poet will sleep then no more than at present, but he will be ready to follow the steps of the Man of Science, not only in those general indirect effects, but he will be at his side, carrying sensation into the midst of the objects of the Science itself. The remotest discoveries of the Chemist, the Botanist, or Mineralogist, will be as proper objects of the Poet’s art as any upon which it can be employed, if the time should ever come when these things shall be familiar to us... (Wordsworth "Preface" 259-60)

In Emerson, too, we find the same ambiguity towards science. Emerson criticizes science for not having “sufficient humanity, so long as the naturalist overlooks that wonderful congruity which subsists between man and the world; of which he is lord ... because he is its head and heart, and finds something of himself in every great and small thing” (*Nature* 33). Yet despite this critique, he finds clear correspondences between the poet and the philosopher – including the natural philosopher, or scientist:

The true philosopher and the true poet are one, and a beauty, which is truth, and a truth, which is beauty, is the aim of both. ... It is, in both cases, that a spiritual life has been imparted to nature; that the solid seeming block of matter has been pervaded and dissolved by a thought; that this feeble human being has penetrated the vast masses of nature with an informing soul, and recognised itself in their harmony, that is, seized their law. In physics, when this is attained, the memory disburthens itself of its cumbrous catalogues of particulars, and carries centuries of observation

in a single formula.

Thus even in physics, the material is degraded before the spiritual.
(Emerson *Nature* 27)

Emerson believes that the poet and the scientist alike make sense of the world by applying the mind to an external world of empirical facts and causal necessities, in the process gaining knowledge of the underlying principles governing the world. Like Lopez one hundred and fifty years later, Emerson makes the science of physics the quintessential example of this process of knowledge construction. Much unlike Lopez, however, he goes on to argue that in order for this process to proceed, “memory [must] disburden itself of its cumbrous catalogues of particulars”; “the material [must be] degraded before the spiritual.” The devaluation of contextualized particularities that is at the heart of this statement reveals a clear hierarchy of mind over matter, even in the very study of natural phenomena. As we shall see, in *Arctic Dreams* it is this devaluation and de-contextualization of material particulars that Lopez, through a combination of poetic and scientific representation, counteracts.

Emerson’s yearning for transcendence explains his definition of poetry as “the perpetual endeavor to express the spirit of the thing, to pass the brute body and search the life and reason which causes it to exist” (*Letters* 17). But even less Transcendental poets saw ‘the passing of the brute body of things’ as a prerequisite for achieving that momentary and transformative unification with the ‘creative principle of the world’ that represented the essence of the poetic imagination. This was the case even though the very moment of poetic vision generally occurred as a direct result of the poet’s close (empirical) study of natural particulars. The explanation for this devaluation of the particular was to be found in what the Romantics saw as the objective of poetry, which, according to Wordsworth, was “truth, not individual and local, but general, and operative” (Wordsworth “Preface” 257). Thus the affective poetry of the Romantics should concern itself with “the great and universal passions of men, the most general and interesting of their occupations, and the entire world of nature” (Wordsworth “Preface” 257).

Just as they accepted the basic concepts of rational science, the Romantics did not question the concept of universal Man, possessed with universal passions and a universal attitude towards the natural world. Both were part of the modern “Quest for Certainty” and the affiliated idea that it was possible to “start[] again with a clean slate” (Toulmin 175) – whether this be absolutely rational knowledge of the world, political revolution, or the poetic re-making of the human relationship with the natural world. Accordingly, we find

Wordsworth, in his Preface to *Lyrical Ballads*, apologizing to his readers for the fact that “my associations must have sometimes been particular instead of general, and that, consequently, giving to things a false importance, sometimes from diseased impulses I may have written upon unworthy subjects” (Wordsworth "Preface" 268). Thus despite the fact that the Romantics worked within an aesthetic paradigm that focused on the natural world and radically elevated the status of its lowly objects, these lowly particulars of nature were worthy of the poet’s attention only to the extent that they lead his imagination towards more profound and universal truths and/or a higher spiritual existence. In this sense the Romantic poets mirrored the science of the times not merely in their search for universals, but also in a correlated tendency to be dismissive of the particular context within which this search took place.

From these brief reflections on Romanticism and its somewhat paradoxical relationship with science, it is not difficult to understand how the Romantic attempt at reunification with the living world could have as its consequence an environmentally unfortunate form of anthropocentrism in which “the life transfused into the mechanical motion of the universe” was understood to be “one with the life of man” (Abrams *Mirror* 65). The transcendental experience of one-ness with the ‘universal being’ (or ‘Over-Soul’), presumably possible only to rational Man, explains why the natural world becomes an expression of the human mind, and why Emerson can read his own nature in that “distant line of the horizon” (*Nature* 4). In this way “[a]ll the facts in natural history taken by themselves, have no value, but are barren, like a single sex” until they are “marr[ied] to human history” (Emerson *Nature* 13). To a modern reader, this devaluation of natural entities or facts is peculiar in a literary movement that validated nature precisely for the way it remains untainted by human designs and categories – thereby providing the poetic imagination with a crucial and inspiring example of the world in its pristine form. And although some (like Samuel Taylor Coleridge) held a more reciprocal view on the relationship between mind and nature (Abrams *Mirror* 64), Emerson was by no means alone among Romantics in expressing such anthropocentric sentiments. Even Shelley, who found great poetic inspiration and use of scientific discoveries, used a rhetoric in which “the powers of nature ... would remain insignificant – vacant, barren” if the human mind did not make them “meaningful and moral” (Wilson 125). In this sense, nature was to most Romantics “thoroughly mediate” to the human discovery of his place in the order of things (Emerson *Nature* 19). It was “made to serve” a Romantic naturalism that was in basic fact a humanism (Emerson *Nature* 19).

Romanticism and science in Thoreauvian nature writing

Recent critical work on the Romantic literary movement (including that of Laura Dassow Walls and Eric G. Wilson) has revealed that despite the movement's general antipathy towards science, several British Romantic poets and American Transcendentalists took great interest in the emerging sciences of their time. Apart from including references to recent scientific theories into their works, these writers tended to share the scientific conception of universal laws governing the natural (material) world. "Any distrust of the permanence of laws," writes Emerson, "would paralyze the faculties of man. ... The wheels and springs of man are all set to the hypothesis of the permanence of nature" (*Nature* 23). The laws of nature were in turn believed to originate with God. The fact that this presumption was fundamental even to radically secular Cartesian science is evident in Descartes' own presumption that a Benevolent God had made "Euclidian ideas equally available to reflective thinkers in all epochs and cultures" (qtd. in Toulmin 177). Accordingly, there was nothing to prevent religiously devoted poets like Ralph Waldo Emerson from reading the natural laws, on which the order of the world rested, in terms of an expression of spirit, or what he termed the 'Over-Soul' (Abrams *Natural* 91). Nature's permanence was thus a given in the Romantic view of the world, and to scientifically bent poets, this permanence was expressed in the natural laws the new sciences unveiled.

More oriented towards the detailed documentation of the actual phenomena of the natural world, and placing this world thematically center stage in their texts, nineteenth-century nature writers were more directly engaged in the border zone between scientific fact and literary modes of representation than were contemporary Romantic poets. An important character engaged with this border zone was Henry David Thoreau. The works of environmental historian Donald Worster and literary scholar Laura Dassow Walls have disclosed how Thoreau negotiated scientific and Transcendentalist ideas about the natural world. According to Worster, Thoreau throughout his career maintained "the hope that science, for all its present wrongheadedness, might eventually by his aid be redeemed" (97). This persistent faith in science, Worster claims, led to a characteristic vacillation in Thoreau's work between naturalism and "transcendental moral vision" (Worster 107).

Further developing Worster's analysis, Walls argues that to posit a dualism between the "hard facts" and "objective reality" of science, on the one hand, and the emphasis in Romanticism on "imagination," "intuition," and poetic forms of expression, on the other, represents a problematic over-simplification of the scientific and ideological context in which

Thoreau wrote (*Seeing* 132). Tracing in Thoreau's work a development from the more purely Transcendentalist texts of his early career, through his meticulous nature observations in the *Journal*, and towards the performance of the more scientifically oriented lecture on "The Succession of Forest Trees," Walls wants us to see Thoreau less as a Romantic Transcendentalist than as a "'theorist' at the 'crossroads of disciplines'" (*Seeing* 8). In *Seeing New Worlds*, she points out that Thoreau wrote at a point in historical time in which literature and science were just in the process of diverging, and in an intellectual environment in which natural historians and Romantic poets alike were experimenting with ways in which to make sense of the facts of the new science within broader conceptions of the world.

Indebted to the work of Walls, I will use Thoreau as an example of how a scientifically inclined nineteenth-century nature writer could experiment with the perceptual frameworks of science in search for alternative and more poetic, less alienating yet still scientifically accurate descriptions of the natural world. By doing so, I hope to nuance the claims made about the literary descent of *Arctic Dreams* and to trace this line of descent back to a more scientifically engaged and materialist version of the Romantic literary tradition. My proposal is that through *Arctic Dreams* we may read Lopez as a literary descendant of Thoreau rather than Emerson. I also argue that if *all* parts of Lopez's text are included into our analysis, *Arctic Dreams* emerges as more of a new materialist than as a Romantic text. The manner in which Lopez in *Arctic Dreams* combines scientific and Romantic ideas about the natural world is the main focus of the last chapters of this dissertation.

Thoreau's experiments with the scientific narrative

Inspired by the work of great naturalists like Alexander von Humboldt and Charles Darwin, Thoreau resisted the Transcendentalist interpretation of material particulars as mere vehicles to universal laws and principles operating in the realm of Spirit or Reason. Refusing to locate 'ultimate' reality on some "other, unearthly plane," Thoreau insisted that the plants and animals of the local Concord environment that he spent so much time observing had a reality of their own (Walls *Seeing* 52). Thus on principle, the scientific 'facts' produced through the observation of natural phenomena might support the scientific laws or universal principles the naturalist sought, or they might indeed be found *not to do so* (Walls *Seeing* 51). In this sense Thoreau was more strictly empiricist than his contemporary Transcendentalist colleagues. He was also of the opinion that good science must *learn from* Nature, rather than try to tame or

control her. These observations are what have caused Walls to suggest that Thoreau was part of a “contemporary but *non*-Emersonian tradition” of Romantic thought (Walls *Seeing* 133).

The idea that Nature should be the teacher of men is pervasive in the works of Thoreau, including his 1860 lecture to the Middlesex Agricultural Society on “The Succession of Forest Trees.” The lecture was the result of years of theoretical and experiential studies of the forests of Concord, and one Thoreau wished would pass as science (Walls *Seeing* 201-202). It includes references to leading naturalists and botanists of his day, and disproves as erroneous ideas about the viability and dispersal of forest seeds that some of these men of science had made on the basis of theoretical speculation and conjecture (Thoreau “Sucession” 39-41). At the same time it presents Thoreau’s own alternative hypothesis on the matter based on long-time personal observation, quantitative measurements, and local anecdotes.

“The Succession of Forest Trees” is a hybrid text in which the discourses of literature and science meet. It represents Thoreau’s attempt to rework the objectifying and alienating discourse of science through an alternative mode of writing whose statements might still be accepted as scientific facts (Walls *Seeing* 201-202). One of the characteristics of the scientific mode of representation Thoreau challenges is the *unmarked narrative voice*, which expresses the narrator’s choice to “stay[] rhetorically out of sight, suppressing any sense of [his] own agency” in constructing the facts and the plot of his narrative (Walls *Seeing* 203). As Walls puts it, Thoreau in this text makes a lot of “narrative noise” (*Seeing* 204). The long rhetorical flights of thought he suddenly breaks into in the midst of his scientific accounts of seed dispersal reveal the literary character of the narrative. The text starts by asserting Thoreau’s personae, and the personal voice he maintains throughout his narrative emphasizes his presence in the text as well as in the process of science. There is little doubt that the hypotheses made in “The Succession of Forest Trees” depend on Thoreau’s collection and systematization of many years of observation of plants and animals of the Concord forests. Thoreau does the “deducing, seeing, probing, connecting,” and as readers we can “see just how hard he must work to create a coherent story out of [this] confusion” (Walls *Seeing* 204, 205). The natural facts of Thoreau’s narrative are not simply ‘there,’ awaiting the human observer’s discovery, but depend upon the observer’s active engagement with the forest and its denizens. The narrator is no neutral and transparent intermediary between the entity in nature and the scientific item that is presented, but an active agent simultaneously recording and constructing the facts and objects of science.

By displaying his own role in the construction of the narrated facts Thoreau disrupts the idea of an absolute distinction between the observing subject and the object observed. This subject/object distinction is further challenged as Thoreau presents the wind, the birds, and ‘the quadrupeds’ (squirrels, mice, and chipmunks) to be co-producers “both of the forest and of his own process of discovery” (Walls *Seeing* 203). A similar effect is caused by the fact that while Thoreau is observing the agency of some of these ‘neighbors’ in their process of co-producing the forests of Concord, they are in turn observing him. “One of the principal agents in this planting, the red squirrels,” he writes, “were all the while curiously inspecting me, while I was inspecting their plantation” (Thoreau "Succession" 22). The squirrel’s inspection of Thoreau situates him in the forest scene, thus finally undermining any illusion of his position as disembodied and omniscient observer.¹⁷

Agency and the ability to observe reside in Thoreau’s narrative with humans and animals alike. So does the ability to ‘manage’ nature to their benefit. The human observer/scientist is not the only agent actively unveiling truths about nature and putting them to good practical use. Thoreau’s forests are teeming with agents that have all made similar discoveries, an observation that leads Thoreau to assert Nature to be the ultimate manager of forests. For all their patient and well-conducted experiments, human foresters “appear not to have discovered that ... they are merely adopting the method of Nature” (Thoreau "Succession" 28). In this manner Thoreau takes the ‘prize’ out of human discovery. Making a reference to how American explorer Elisha Kent Kane (1820-1857) and his companions survived being icebound in the Arctic for two years by “steadily adopting the customs of the natives, simply becoming Esquimaux” ("Succession" 34), Thoreau goes on to imply the wisdom for foresters in adopting the customs of the Concord forest natives: the birds and ‘quadrupeds’. By doing so, Thoreau announces the animals of the Concord forests to be the true natives and most successful managers of these forests. As chapters Three, Four and Five will reveal, Lopez in *Arctic Dreams* does much the same for the animals of the Arctic.

¹⁷ This observation rests on Walls’ description on the “feedbacking techniques” Thoreau in this text applies in order to disrupt “the illusion of an invisible ‘I’ whose all-seeing ‘eye’ has laid bare the truth of the universe” (*Seeing* 204).

Nineteenth-century exploration narratives: presenting scientific observations and authentic experiences in readable form

“The Succession of Forest Trees” demonstrates how nature writer Henry David Thoreau experimented with a combination of literary and scientific forms of representation in order to expose and try to overcome some of the restraints and reductions of scientific representation, but without sacrificing the truth claims of his facts and the reliability of his narrative. Questions of scientific and authorial reliability were also a concern to arctic explorers, whose narratives should at one and the same time provide accurate geographical and scientific information about the regions visited *and* entertain a public audience. Precisely because exploration narratives were expected to provide (as we remember from Tallmadge’s definition) “factual accounts of voyages of discovery written by the explorers themselves or by participants in their expeditions” (3), the issue of authenticity became one of central importance. As Tallmadge observes, although “[t]he text of any voyager’s account usually insists upon its own accuracy, ... the material it presents may be absolutely new and therefore difficult to verify” (9). The impossibility of verification, and hence the need for legitimization, was augmented in arctic exploration narratives, which portrayed “landscapes, animals, and atmospheric phenomena” not only unfamiliar to their reading audiences, but indeed, as Morgan puts it, only “rarely seen by Europeans (or, indeed, by any humans)” (5). How, then, could an arctic explorer create in his text that “climate of authenticity” that would cause his readers to trust his narrative (Tallmadge 9)? What rhetorical strategies do exploration narratives allow?

For any narrative of exploration to appear trustworthy, its readers must be convinced of the expertise of the narrating explorer, and of his abilities to make “accurate” and “valuable” observations (Tallmadge 9). Both Bryson and Tallmadge argue that the wealth of scientific information included in exploration narratives strengthens both the authenticity and the practical (strategic and utilization) value of these narratives (Bryson 10; Tallmadge 10). Tallmadge moreover specifies the “recitation” of “[d]ates, geographical coordinates, lists of provisions and equipment, descriptions of experimental procedures, and technical terms such as scientific names and nautical jargon” to be among the “technical details” that proves the explorer’s command of the technical equipment and scientific practices on which he bases his discoveries (10).

In *Visions of the Land: Science, Literature and the American Environment from the Era of Exploration to the Age of Ecology*, Michael A. Bryson reads the journals of the two

first trans-Missouri expeditions of explorer-scientist John Charles Frémont as mid-nineteenth-century examples of the tradition of American exploration narratives.¹⁸ Through his reading, Bryson brings our attention to the way in which “data points” are in these narratives “juxtaposed with straight narrative, geological speculation with rhapsodic description of the landscape, botanical observation with buffalo chases” (Bryson 3). Frémont’s narratives present empirical data in numerical form within narrative sections of the text as well as in “lengthy tables included as appendixes” (Bryson 9). This wealth of numerical information, Bryson argues, strengthens both the authenticity and the practical (strategic and utilization) value of these narratives, and complements Frémont’s many sections of “close, careful, highly detailed description” of natural landscapes and phenomena (10). To Bryson it is this “artful combination of analytic and poetic elements” that makes Frémont’s otherwise dense and factual narratives “distinctively readable” (Bryson 10).

Although the narratives of nineteenth-century explorations of the North American Arctic depict other hunting scenes, and offer only sparse botanical observations, they possess many of the same qualities Bryson finds characteristic of more southern exploration narratives. Like Frémont’s texts, Parry’s *Journal of A Voyage for the Discovery of a North-West Passage* and Scoresby’s *An Account of the Arctic Regions* oscillate between scientific descriptions of arctic natural phenomena, plain reports on the progress of the journey, and aesthetic depictions of the landscapes traversed. They also offer the scientific information procured by the explorers or their officers in the form of tables of numerical and/or other forms of abstract and systematized data. While some of these tables are placed within the texts themselves, simultaneously puncturing and providing scientific support for their narratives, several are relegated to the texts’ extensive indices. Among the phenomena described in these tables we find anything from data on geographical positions and meteorology, to qualitative descriptions of arctic animals assigned Latin names and characteristics determining their placement within taxonomic systems of lineage.

Parry’s *Journal* also complies with Tallmadge’s general description of exploration narratives by including within its opening pages and Introduction an extensive description of the crew and provisions aboard his two ships, a list of technical instruments with which to perform navigational and other scientific measurements, and a brief glossary of ice forms,

¹⁸ These two journals were published together in Frémont’s *Report of the Exploring Expeditions to the Rocky Mountains in the Year 1842, and to Oregon and Northern California in 1843-44*.

presented under the heading “Explanation of technical terms made use of in the course of the following narrative.” Together these items convince the reader of Parry’s sound arctic experience and of his capabilities in planning and executing an arctic voyage. Although no such introductory display of expertise is present in Scoresby’s *Account*, Scoresby’s authority as an arctic explorer resounds throughout his text through his extensive descriptions of hydrography, geography and ice formations, and through the expert advice he offers on (among other things) the ideal size of ships and possible routes and methods for further exploration of the North-West Passage.

Like the nineteenth-century arctic exploration narratives to which it refers, *Arctic Dreams* offers detailed scientific accounts of arctic animals and physical natural phenomena within the framework of a travel narrative, and can be thought to represent Lopez’s physical and cultural exploration of the North American Arctic. To a greater extent than these former narratives, however, *Arctic Dreams* merges scientific with poetic forms of representation. Nonetheless, its descriptions of arctic light phenomena, of the form and movement of ice landscapes, and of arctic animal life are in detail and accuracy on par with these former narratives. In addition to offering in-text scientific descriptions of animals and landscapes, Lopez’s text resembles nineteenth-century exploration narratives in including a list of appendices of observed natural phenomena. These include geographical maps, place names and their coordinates (Appendix I), taxonomic listings of animals and plants (in Appendix II divided into the categories “MAMMALS,” “BIRDS,” “FISH,” and “PLANTS”), and a timeline chart of human cultures and civilizations (Appendix III). Lopez’s text also contains an extensive bibliography, in which (as already noted) we find Parry’s *Journal of a Voyage for the Discovery of a North-West Passage* (1821) and Scoresby’s *An Account of the Arctic Regions* (1820) listed as sources.¹⁹ Such more formal and structural parts of *Arctic Dreams* invoke the text’s lineage to the literary tradition of exploration literature, and serve as supplement to its more extensive dialogue with scientific and historical forms of representation of the natural world.

¹⁹ As Lopez explains in a brief introduction, this bibliography is not a comprehensive list of the sources on which his narrative rests. Rather, it is “intended to provide the general reader with a broad understanding of the biology, ecology, archaeology, ethnography, and history of the Arctic” (*AD* 445). Among more recent works on the environmental, political and economic state of affairs in the Arctic in the 1970s and early 1980s, we find in this bibliography a rich array of twentieth-century sources on Inuit anthropology.

In traditional exploration literature, a trustworthy explorer should also display his mastery of the general subject of geographical exploration. This is why we find in several arctic exploration narratives appeals to former scholarship. “[B]y referring repeatedly to earlier travellers in similar regions, as well as to other authorities whose pronouncements bear on his enterprise,” Tallmadge writes, the explorer not only demonstrates his scholarly knowledge of the field, but also “shows his respect for the geographic tradition of his own culture, and commits himself to maintaining its standards for what is factual and accurate” (9-10).

Arctic explorers William Edward Parry and William Scoresby both make use of this rhetorical strategy to place their narratives within a proud tradition of exploration in which new geographical and scientific knowledge has been produced at high human and financial cost. They do so, however, with varying success. Parry, in the Introduction to his *Journal of A Voyage for the Discovery of a North-West Passage* (1821), confirms his original intention to give a historical account of arctic exploration preceding his own voyage, but explains how he finally decides against this on the consideration it “would have occupied a considerable space, and, after all, would have been but a brief abstract of what Forster, Burney, and Barrow, have already done” (xiv). Possessing fewer scruples regarding the length of his narrative, and perhaps greater respect for the century-long traditions of exploration and whaling in the arctic waters he traversed, Scoresby in his *Account of the Arctic Regions* (1820) engages in a thirty pages long historical “Account of the Progress of Discovery in the North” (61), before moving on to his own “Descriptive Account of Some of the Polar Countries” (92).

Also Lopez emphasizes his scholarly grasp on his subject matter by placing his portrayal of the Arctic within the historical tradition of arctic exploration. Together the two final chapters of *Arctic Dreams*, “The Intent of Monks” and “A Northern Passage,” give a quite detailed description of the history of Western exploration of the Arctic. Lopez’s late twentieth-century account naturally covers a longer time period than does Scoresby’s early nineteenth-century one.²⁰ It also has recourse to a range of more recent and alternative nineteenth-century texts about the Arctic: texts like ship logs, diaries, and other unofficial reports that offer slightly different views on the region than do the stylized accounts published

²⁰ Whereas Scoresby’s “Account of the Progress of Discovery in the North” begins in the ninth century (61), Lopez’s traces the history of arctic exploration back to Pytheas’ northern journey from the Mediterranean to his Norwegian or Icelandic *Thule* in 330-325 B.C., and even speculates that “Carthaginians probably preceded” the early journey of Pytheas to the north (AD 314).

by the expedition leaders. As we shall see in Chapter Two, the access to such alternative texts is a point of vital importance to Lopez's *Arctic Dreams*, which focuses as much on the *representation* of new knowledge produced in the Western tradition of arctic exploration, as on the actual details of that knowledge. However, even a modern narrative of the Arctic like *Arctic Dreams* must rely on information generated by earlier explorers. This is evidenced in the fact that *Arctic Dreams* includes several of the same historical personae and events found in Scoresby's "Account of the Progress of Discovery in the North," making it very likely that Scoresby's account has functioned as a source text for Lopez's narrative. The inclusion of the historical chapters in *Arctic Dreams* can thus be read as part of the text's alignment and homage to the literary tradition of arctic explorer narratives.

Beyond displays of technical and scholarly expertise, the authenticity of traditional exploration narratives relies on the explorer's firsthand experiences of events portrayed and discoveries made (Tallmadge 9). The phenomenological "record of what is smelt, touched, tasted, seen, and heard" provides "convincing written evidence of the authenticity of what is told" (Beer 56). The account of the eyewitness is, in other words, as central to the genre of exploration literature as it is to the genre of nature writing. (As we shall see in Chapter Three, Lopez makes use of written eyewitness accounts by arctic explorers to supplement his own vision of the narwhal.) However, as both Beer and Morgan emphasize, detailed sensory descriptions potentially threaten as well as strengthen the authority of the traditional exploration narrative. Because this form of sensory evidence was part of what was for nineteenth-century audiences the well-known literary genre of imaginary voyages, against which true exploration narratives needed to distinguish themselves, these forms of representation had to be presented with great caution. In order to convince its audiences that their descriptions represented "controlled observation" rather than "playful exaggeration" or straight out "fantasy," these descriptions were placed within a context in which "[d]iaries, field notes, samples, and specimens, all the local and immediate evidence of encounter and categorization" could vouch for "the objectivity of record" (Beer 56). Within the texts themselves, the authenticity of the narrative was often asserted in "prefaces assuring readers of the truthfulness of the narrative" (Morgan 5).

Also the *unmarked narrative voice* supported the objectivity and hence the authority of the exploration narrative. Because the narrative voice is normative, presenting the narrator's synthesizing vision of the lands travelled and the phenomena encountered, it retains its authority to the extent that it remains unmarked. Like other scientific reports, arctic

exploration narratives should appear as if they had somehow emerged as the result of the narrator's experiences in the Arctic "through a natural rather than a cultural process" (Cavell 48).

Historian Janice Cavell, who has made extensive investigations into the reception and representation of nineteenth-century exploration narratives in British print culture, claims that in order to gain the approval of their audiences, arctic explorers needed to present themselves as unconscious of their own power to shape their narratives (Cavell 48). The objective, realist prose that was demanded of the scientific parts of such narratives colored also the more personal parts, which had to be given 'modestly' and in a "simple, manly, unaffected style" that reflected the certainty that what the explorers had to tell needed no embellishment (Cavell 48). In this sense the objectivity required by the scientific aspects of their explorative endeavors coincided with the idea of a manly, straightforward and reliable narrative. As Cavell puts it, "[a]ny obvious attempt at literary effect was equated with artifice and insincerity, while some awkwardness or dullness in the writing was not only acceptable but seen as welcome proof of a book's authenticity" (19). Only in descriptions of the landscape, it seems, did the arctic exploration narrative allow its author to cater for the tastes of his audience by supplementing scientific report with aesthetic descriptions in more Romantic language. Contrarily, Lopez in *Arctic Dreams* consciously stylizes even the most scientific aspects of his 'exploration' of arctic landscapes and animals. The effects of these stylizations will be a returning topic in chapters to come.

Exploration narratives as hybrid texts

As argued in the Introduction, texts of nature writing tend to be influenced by scientific theories, concepts and findings, but present such scientific forms of knowledge within oftentimes philosophically reflective narratives with distinctly literary qualities. This mixture of scientific and literary forms of representation is only part of a more extensive and complex form of hybridity that results from the development of nature writing from a range of other forms of written discourse, among which Don Scheese identifies "natural history," "spiritual autobiography," and "travel writing" to be the most influential (6). As these can in themselves be thought to represent a continuum of increasingly more composite discourses, the very lineage of nature writing indicates an openness towards other forms of knowing and representing the world. The inclusiveness of this somewhat "indistinct and shifting" genre

(Fowler 39) allows some of its texts – like *Arctic Dreams* – to emerge as veritable contact zones for a range of discourses and ways of perceiving the world.

However, as a number of literary critics now acknowledge (and Bryson through his analysis of Frémont's narratives show), this combination of scientific and literary forms of representation is also present in nineteenth-century exploration narratives. As early as in 1979 Tallmadge argued that the literature of exploration should be considered a “true hybrid combining certain features of both ‘reportage’ and imaginative fiction” (2). He further pointed out that in preparing their ‘reportages’ for publication, explorers used distinctly literary tools to shape their experiences into coherent narratives that could sustain the interest of their readers (Tallmadge 10). Central among such literary tools was emplotment: the selection, ordering, and representation of events in support of a narrative trajectory. The need for emplotment demanded the explorer's conscious interpretation of his experiences and his establishment of the “overall significance” of the voyage made (Tallmadge 11). Accordingly, literary scholar T. D. MacLulich, in a survey of Canadian exploration literature, has commented how the explorer

must choose which events to record and which to omit; he must select some events to stress and others to pass over lightly; he must decide on the amount and kind of interpretive commentary he will offer; and above all he must shape his account in accordance with his own sense of the pattern inherent in his personal experiences.
(73)

In this, the actions of the explorer preparing his narrative for publication resembles quite closely the actions performed by the historian in preparing his (or her) narratives of history.

Both Tallmadge and MacLulich emphasize the resemblances between narratives of exploratory voyages and more purely historical texts. Richard Davis, in his article “History or His/Story: The Explorer Cum Author,” observes how nineteenth-century audiences understood exploration narratives like those of Sir John Franklin to be non-fictional accounts of travels whose main purpose were acts of geographical discovery. Accordingly, events reported in such narratives were granted the status of historical facts (Davis par. 5, 36). Arctic chronicles generally presented the account of the expedition from the point of view of the expedition commander. However, they also frequently drew on or implemented the accounts of subordinate crewmembers (Cavell 18). Yet despite such obvious acts of selection and compilation of historical, geographic, and scientific facts, exploration narratives were believed to represent the author's genuine responses to his arctic experiences, and were even

by literary critics for a long time presumed to be “innocent of literary intention” (David par. 1).

In presenting such literary mediated histories within texts making pretenses to neutral reportage, exploration narratives can be thought to exist somewhere in the middle of what Tallmadge identifies as a “continuum” of textual forms “stretching between reportage and fiction and divided into generic domains whose boundaries are recognizable but somewhat flexible” (6). According to Tallmadge, this middle region is also where we find other genres belonging to the domain of history: genres like “biography, autobiography, [and] the literature of travel” (7). Like the literature of exploration, these are genres that allow “a blend of the literal and figurative,” and in which we, “like [in] any other narrative genre,” may perform literary analyses of significant features like “plot, imagery, persona, diction, and so forth” (Tallmadge 7). As the genres Tallmadge here mentions are precisely those on which texts of nature writing draw, we may conclude that the hybridity of nature writing consists not merely of the juxtaposition of a series of different discourses, but also of a combination of the factual and the poetic, the ‘literal and figurative,’ that seems to be a trait fundamental also to the genres from which it emerged.

The Romantic tendencies of British arctic exploration narratives

British narratives of arctic exploration seem to have one more factor contributing to the hybridity of their narrative form and their ideals than do their American counterparts. As Lisa Bloom notes in her 1993 *Gender on Ice*, Americans to a greater extent than Britons wrote their polar explorations into a narrative of science and progress in which nature was to be conquered and the “scientific ideal” called for “professional detachment and scientific proofs” (128). Britons tended to construct narratives of polar exploration in which the Arctic or Antarctic became a testing ground for “displays of moral courage and physical bravery, as well as a place to express the superiority of the British race” (Bloom 120).²¹ Bloom’s analysis supports Cavell’s later argument that to investigate nineteenth-century narratives of arctic exploration without taking into account the Romantic ideas that influenced these narratives from the early 1820s on is to miss much of their original meaning (Cavell 49).

²¹ Bloom makes this observation for the masculine narratives of Arctic and Antarctic exploration of the early twentieth century. Yet in the context of Cavell’s more recent work, there seems no reason to believe that these differences were not present also in arctic exploration narratives of earlier decades, albeit perhaps in more rudimentary form.

Because of the influence Romantic ideas had on British exploratory efforts in the Arctic, British explorers tended not primarily, or not *only*, to see their work as part of a triumphant conquest of nature. The “manly, unaffected style” of the exploration narrative (Cavell 48), which signaled the explorer’s skill as a scientist, was in the British tradition more an expression of the explorer’s morality and physical stamina than of his control over nature. Whereas scientific study dictated the local control over measurements of natural phenomena and geography efficiently inscribed an abstract control over space, the grand forces of nature could not be controlled. Indeed, Cavell claims, British explorers believed that only by to some extent “submitting to the power of nature” could they better understand its laws (50). This explains the presence and importance of literary and aesthetic modes of representation like the Romantic natural sublime in exploration narratives like Parry’s *Journal* and Scoresby’s *Account*. According to Morgan, the presence of such literary modes of representation creates in these texts a “tension between a claim to transparent description and a poetic evocation of the indescribable” (5). Claiming that these nineteenth-century arctic exploration narratives were “extraordinary complex in [their] animation and deployment of ideologies, tropes, and poetic techniques” (6), Morgan implicitly argues in favor of reading these texts as (what I would term) literary contact zones in which scientific objectivity meets Romantic ideals and their forms of representation.

The presentation of scientific facts within narratives shaped by Romantic ideas and ideals is, of course, also characteristic of nature writing. We find this in more contemporary texts like *Arctic Dreams*, just as in earlier nature writing texts of the more distinctly Romantic or Transcendentalist tradition. The chapters to come will demonstrate the many ways in which Lopez’s *Arctic Dreams*, like Thoreau’s earlier “The Succession of Forest Trees,” function as contact zones in which Romantic and scientific ideas and ideals are brought together in potentially transformative ways.

The lineage and characteristics of *Arctic Dreams*

As Finch and Elder describe nature writers as “the children of Linnaeus” (19), they emphasize not only these writers’ diligence and skill as observers of natural phenomena, but also their application of a scientific framework of perception associated with a specific set of attitudes towards the natural world. If we view nature writing in light of Walls’ demonstration of how American nature writer Henry David Thoreau negotiated the borders between science and

literature, it becomes evident that the lines separating the natural historian from the nature writer are just as unstable and porous as the lines of demarcation between scientific and literary texts. Like the exploration narratives from which they developed, texts of nature writing are hybrids operating on the border between the factual/scientific and the poetic. Like their predecessors, they combine Romantic thought with scientific report.²² We have already considered some of the similarities between Lopez's *Arctic Dreams* and the nineteenth-century exploration narratives to which this text refers. What, then, are the differences between these two forms of text?

An important distinction between nature writing and exploration narratives is evident in the very definition of nature writing, which specifies the genre's involvement not only with natural history and travel writing, but also with "spiritual autobiography" and the portrayal of "the growth and maturation of the self in interaction with the forces of the world" (Scheese 6). The idea that encounters with the natural world initiate changes in the perception of self, as well as in the self's understanding of and interaction with this world, pervades *Arctic Dreams* as well as much other nature writing. Accordingly, much emphasis is in these texts given to the emotional development and poetic visions of the narrator. Because nature writing, as defined by Buell, further involves a consideration of how "*human history is implicated in natural history*" (*Environmental* 7), nature writers are critically engaged in the human relationship with nature on a personal as well as on a historical or species level in a way nineteenth-century explorers were not.²³ And whereas nature writers often express great concern (if not fear) for the way the increasing pressures of the human species bring about a deterioration of the natural world, the development of the narrative persona generally proceeds in a more positive environmental direction. While the physical travel narrative tends to end with the narrator's return to home, the spiritual and/or autobiographical journey of the nature writer generally traces a (more or less linear) progression towards a higher level of environmental awareness and human consciousness. In this nature writing differs from

²² As already noted, the Romantic influence was more pronounced in British than in American exploration narratives.

²³ Thoreau, for instance, was painfully aware of how economic development and white settlers' land-use practices in three hundred years had reduced the formerly densely forested areas of Concord to mostly open land, and radically changed its species composition (Worster 66). This awareness was part of his motivation for embarking upon studies of these forest ecosystems that could lead to the development of sound and restorative forest management practices.

exploration narratives like Parry's *Journal* and Scoresby's *Account*, which, apart from a few and highly aestheticized descriptions of sublime arctic landscapes, remain focused on objective descriptions of physical reality.

Whereas explorers like Parry and Scoresby generally present physical details and scientific facts in the unmarked (yet normative) narrative voice of the explorer-scientist, nature writers are less afraid to 'taint' facts and details by presenting them in a personal narrative voice (Finch and Elder 22). The effect of this, Walls has showed us, potentially goes beyond a mere highlighting of the personal nature of human interaction with the natural world. Part of what distinguishes Thoreau's more scientific work from simultaneous exploration narratives is the way a text like "The Succession of Forest Trees" challenges basic tenets of science, like the subject-object divide, the position of the observer, the nature and representation of facts, and the mechanistic conception of animals. As we shall see, Lopez's representation of arctic animals and arctic ecosystems poses similar challenges.

I want to mention one final difference between nature writing and exploration narratives that is of importance to our further investigations of *Arctic Dreams* in terms of its scientific and Romantic lines of descent. This is the difference in worldview into which Romantic poets and men of science wrote their facts. Even as Thoreau negotiated the border zone between science and literature, his experiments with the perceptual framework of science aimed to free scientific discourses from their inherent mechanistic reductionism, thereby bringing science closer to a Romantic holistic vision of a world of relationships; the world as "uni-verse" (Walls *Seeing* 9). In order to do this, Thoreau needed a critical or slightly slanted perspective on science as *one possible* rather than the *only possible* perspective on the natural world. Thoreau gained this perspective through his awareness that when science provided the "method and language" through which the particulars of nature could become visible (and he could 'come to know his neighbors'), it entailed at the same time a certain focus and limitation to the field of study (Walls "Romancing" 143). His association of science with what he called the "intentionality of the eye," reveals Thoreau's insight that there is no such thing as direct or unmediated (scientific) description, and that the observer's agency in constructing scientific facts represents a form of mental framing of the world (Thoreau, qtd. in Walls "Romancing" 143). Walls suggests that because Thoreau worked within a domain from which science and literature had not yet split into distinct and different ways of knowing, he saw science as a language, and "[d]isciplinary differences" as the result of different approaches and "varied intentions" towards the 'uni-verse' (Walls *Seeing* 9).

According to this line of thinking, Walls continues, “[e]ach discipline becomes in effect a mental lens, a mode of perception as well as of discourse” (*Seeing* 9).

In the introduction I proposed that Barry Lopez in *Arctic Dreams* creates a complex and multi-faceted image of the Arctic through the juxtaposition of a multiplicity of different perceptual frames of understanding. According to this argument, scientific and artistic representations of arctic landscapes all involve different forms of framed and focused perspectives. This chapter has discussed how maps, taxonomies and the very concept of landscape may be interpreted in terms of perceptual frames, and how these forms of framing may all be found in texts of nature writing as well as in nineteenth-century exploration narratives. In view of the partly Linnaean, partly Romantic lines of descent of *Arctic Dreams*, it might be argued that Lopez, in offering this multiplicity of perceptual frames, develops insights about the ‘situatedness’ of knowledge that Thoreau accentuated more than a century earlier (Walls *Seeing* 10), and that Donna Haraway in 1991 expanded on in *Simians, Cyborgs and Women* (183-201). Over the course of the hundred years that have passed between Thoreau’s *Journal* and Lopez’s *Arctic Dreams*, scientific perceptual frameworks seem both to have multiplied and to have brought us closer to a holistic vision of the world. In *Arctic Dreams* these scientific frames of perception meet Romantic frames of perception within a genre (i.e. nature writing) in which they have a long history of co-existence. We thus seem justified in re-imagining in *Arctic Dreams* the Thoreauvian border zone between science and Romanticism in terms of a contact zone in which these two different ways of perceiving arctic landscapes meet and interact, and possibly generate new insights about the Arctic and our ways of knowing it.

Chapter Two: Accounts, maps, and landscapes of the mind: deconstructing old authoritative representations of the Arctic

One of the central themes of *Arctic Dreams* is that a variety of perceptions may exist for one and the same landscape, or phenomenon. The text itself openly acknowledges its debt to several traditions of knowledge-production about the Arctic, including the Western scientific, the indigenous, and the artistic. Among the former tradition we find the narratives of nineteenth-century arctic exploration literature. In Chapter One I argued that it is possible to read *Arctic Dreams* in the continuation of the literary tradition of arctic exploration narratives, and noted some basic correspondences between Lopez's text and nineteenth-century chronicles of arctic exploration. Taking as its starting point the idea that the structure of a narrative is connected to its range of vision, the current chapter looks at what *kind* of arctic exploration narrative *Arctic Dreams* most closely resembles. Using Scoresby's 1820 *An Account of the Arctic Regions* and Parry's 1821 *Journal of a Voyage for the Discovery of a North-West Passage* to exemplify the Western tradition of scientific and cartographic mappings of the Arctic, I analyze the way in which Lopez's reflections on maps and landscape perceptions alert our attention to the limitations inherent in these forms of representations. In the case of the Arctic, Lopez maintains, the best way of dealing with these limitations is to open up for a range of different perspectives on the land and its denizens. With the narratives of Scoresby and Parry as contrastive background, the discussions of this chapter will expose the manner in which *Arctic Dreams* radically expands the heterogeneity of the arctic exploration narrative in support of its own project of deconstructing the authority of old Western cartographic and textual representations of the Arctic.

The tale of the *Cumbrian*

Arctic Dreams opens with a tale of the British whaler the *Cumbrian* hunting for Greenland whales in the waters of Baffin Bay. It is summer 1823, according to Lopez the season that "marked a high point in the halcyon days of British arctic whaling" and in which we might have found the ship's officers in their spare moments "reading William Scoresby's *Account of the Arctic Regions* or the recently published discovery narrative of William Parry" (AD 3, 10).

Reimagined on the basis of the logs of its captain (who remains unidentified in Lopez's narrative), the tale of the *Cumbrian* relates the eventual success of its crew in bringing home "236 tons of oil to light the street lamps of Great Britain and process the coarse wool of its textile mills," as well as "four and a half tons of whalebone" for consumer items like "umbrella staves and venetian blinds, portable sheep pens, window gratings, and furniture springing" (AD 2). The opening chapter of *Arctic Dreams* thus underscores that at the time the scientific expeditions of explorers like Parry made their entry into the Arctic, they entered a region in which commercial interests catering to modern consumer society had long engaged in their own pragmatic forms of discovery. And although the crew of the *Cumbrian* reportedly found such scientific expeditions mere "pompous exercise[s] in state politics, of little or no practical value" in comparison to their own enterprise that produced tangible wealth (AD 10), the scientific and geographical mapping of resources Parry and his like engaged in was to provide a vast and valuable potential for further exploitation.

The tale of the *Cumbrian* serves multiple purposes in Lopez's text. By opening his narrative of the Arctic with this tale, Lopez from the very outset counters the culturally resilient image of the region as "too dangerous, too remote or even too useless to exploit in material terms" (Spring and Schimanski 14). Both commercial actors and 'disinterested' science, he shows us, were at work in the Arctic in the nineteenth century. In introducing his narrative from the perspective of the crew of the *Cumbrian*, Lopez also signals that he aims to unveil Western perspectives of the Arctic other than, and simultaneous with, those expressed in lofty sentiments by the leaders of historically renowned expeditions of discovery. Finally, by placing the accounts of Parry and Scoresby within his narrative of the crew of the *Cumbrian*, Lopez establishes these two texts as influential sources of knowledge about the Arctic, even in their own time.

As I mentioned in Chapter One, we can find Parry's *Journal* and Scoresby's *Account* listed as sources in the bibliography of *Arctic Dreams*. In consulting these texts, we find that quite some of the factual information about the Arctic included in *Arctic Dreams* originates here. In Lopez's quite detailed account of the Western history of arctic exploration, British Royal Navy Officer William Edward Parry's 1819-1820 expedition into Lancaster Sound is described as "one of the most admirable and engaging, not to mention successful, of all arctic voyages" (AD 347). Whereas I share Lopez's respect for Parry's accomplishments, my main motivation for including Parry's *Journal* into my analysis of *Arctic Dreams* is the influence

this narrative seems to have had on the establishment of the nineteenth-century idea of the arctic sublime. (Confer Chapter Eight for a more extensive discussion on the sublime.)

Scoresby's *Account* is included into my discussions of *Arctic Dreams* partly because Lopez in several places refers to this text, partly because he praises Scoresby's practical and scholarly background, his intellectual curiosity and regard for other people's ideas, as an ideal starting point for the search for genuine knowledge about the Arctic (*AD* 345). The son of an accomplished navigator and whaling captain, William Scoresby Sr., Scoresby joined his father on his first journey into the Arctic at the age of ten, and was given command of his father's ship, the *Resolution*, in 1811, at the age of twenty-one. In the years between, Scoresby had engaged in natural science studies (including chemistry, physics, mathematics and natural history) at the University of Edinburgh (Hardy). In 1819 he was elected a Fellow of the Royal Society of Edinburgh, and in 1824 a Fellow of the Royal Society of London (Hardy). To Lopez, Scoresby is not only "as bright and keen-eyed observer as ever went to sea," but more significantly a character that "stand[s] out in arctic history, amid the contentious hegemonies of opinion that characterize its ... history" (*AD* 145-46, 345). With the ability to view the Arctic from a set of different perspectives, thereby merging practical experience with academic knowledge and a respect for the ideas of others, Scoresby fits the nature writer's ideal of a natural historian.

Scoresby's *Account* and Parry's *Journal* together exemplify the range of forms and variety of attitudes towards the natural environment present within the tradition of arctic exploration literature. The journeys of Scoresby and Parry took place within the same time period, but advanced to regions of the Arctic with dissimilar environmental characteristics and disparate histories of Western engagement. The motivation behind them was as different as the background of their expedition leaders. As we shall see in the following, this resulted in differences between the two texts not only in terms of the authority of the narrative voice, but also in terms of the narrative form and the range of vision of the text itself.

Arctic quests and odysseys

In my discussions of the hybrid qualities of exploration narratives in Chapter One, I mentioned emplotment as one of the literary tools of the genre. Emplotment involves the active selection and arrangement of events or facts for the purpose of the construction of a narrative whole, a story of a particular kind. Although this process of selection and

arrangement must always use as its source material the actual experiences and recordings of the explorer himself (or his crew), literary scholar T. D. MacLulich has offered some interesting observations on the connection between the different structural forms of emplotment found in arctic exploration narratives and the attitudes towards the land and the indigenous peoples conveyed in these narratives.

In his 1979 article “Canadian Exploration as Literature,” MacLulich establishes three different, but not distinctly separated, plot structures: the *ordeal*, the *quest*, and the *odyssey*. In the *ordeal* the focus of the action is on “the attempts of the exploring party to ensure their survival” (MacLulich 74). This form of narrative dominates early arctic exploration narratives. By the nineteenth century, MacLulich claims, journeys into the Arctic were generally well prepared and had as their expressed aim the further advancement of geographic and scientific knowledge. Accordingly, the narratives of these journeys tend to take the form of *quests* in which the attainment of a clearly defined goal is the central theme (MacLulich 74). In the *quest*, MacLulich writes, the explorer’s journey is “portrayed as a succession of crises, in each of which some obstacle is overcome, rising to a climax with the final attainment of the goal. This authorial strategy results in a swiftly-moving, straight-line narrative, focused on limited issues,” all of which have direct relevance to the text’s quest motif (MacLulich 74). Events depicted are either steady steps towards the goal or drawbacks, and to the extent that the latter are overcome this testifies to the fact that the explorer himself possesses “powers of mind and body beyond the reach of ordinary mortals” (MacLulich 83).

A quest motif is clearly evident in Parry’s *Journal of a Voyage for the Discovery of a North-West Passage*. The title itself specifies the goal of the journey, and the linearity of the plot follows the progression of the Parry’s ships into (and out of) what is today the Parry Channel. And although the tone of Parry’s text somewhat downplays his own role as a “determined and forceful hero” or “conqueror” of the lands traversed, Parry’s *Journal* resembles other arctic *quests* in “displaying [the] bravery, physical strength, resourcefulness, and unflagging determination” of the expedition leader, whose narrative of overwintering in a dark and hostile Arctic we are given (MacLulich 74).

Scoresby’s *Account* does not have the linear plot structure and clearly determined purpose of the quest. Aiming to give a scientific and comprehensive account of the region’s natural, cultural and commercial history (the history of the whale fisheries), the plot of Scoresby’s narrative is constrained by the thematic arrangement of the text. Traces of a linear travel narrative can be detected in the form of anecdotes of personal experiences scattered

within the different sections devoted (in Volume I) to scientific issues like geography, hydrology, ice formations, ‘atmospherology,’ and zoology, but these are always of relevance to the more factual information presented. This gives Scoresby’s text a distinctly different and less linear narrative structure than Parry’s *Journal*. And whereas Parry’s journal makes a grand contribution to the science of geography – of cartographic mappings and the search for a *passage through* the Arctic – Scoresby’s *Account* makes a broader contribution to a scientific dialogue in which focus is on the nature and characteristics of the Arctic itself. It presents information from within many fields and from a broad array of sources among which empirical measurements performed by the crew of the *Resolution* are only one. Scoresby’s *Account* is moreover the result of repeated journeys to the Arctic during the whaling season, none of which included the ordeal of overwintering.

To the extent that there is a plot structure in Scoresby’s narrative, this is an *odyssean* one. In the *odyssey*, MacLulich writes,

the explorer’s goal is only of secondary importance in comparison with his desire to obtain an overall view of the unknown regions he is traversing. Then, the incidental details of the journey become the main focal point of the account. The explorer describes the things seen and the experiences undergone for their own sake rather than simply as adjuncts to a quest for some specific place or object. Such an explorer often gives extensive descriptions of the lands and the peoples he encounters, and may describe his own gradually growing understanding of a non-European way of life. Focusing on incidental details in this way results in a loose and digressive structure ... (MacLulich75)

Although Scoresby’s *Account* lacks the single journey motif and perhaps tends more towards the pure scientific report than towards the *odyssey*, it is *odyssean* in the way it combines the life experiences of the narrator with the scientific account of the lands traveled (MacLulich 82). According to MacLulich, the *odyssey* is a more modern form of exploration literature. As explorations during the course of the nineteenth century became increasingly scientifically motivated, and engaged in more “disinterested and objective scrutiny” of the Arctic, the *odyssey* gradually supplanted both the *ordeal* and the *quest* narrative (MacLulich 83).

On reading MacLulich’s characterization of the *odyssean* form of arctic exploration narratives, similarities with *Arctic Dreams* become immediately apparent. The broad subject matter, scientific engagement, and loose essay form gives *Arctic Dreams* a digressive narrative structure similar to that of the arctic *odyssey*. It further allows Lopez to focus his narrative on details of arctic landscapes and animals he himself finds interesting; “the things seen and the experiences undergone” in the Arctic that have a value in and of themselves

(MacLulich 75). The digressive structure allows the text's inclusion of the kind of "passages of summary and description," and "anecdotes illustrating features of native life" that MacLulich has found characteristic of *odyssean* forms of arctic exploration literature (82). Although the latter are less evidently present in Lopez's text, which, like Scoresby's, is less of a travel narrative than the arctic exploration narratives on which MacLulich bases his characterization, *Arctic Dreams* does include Inuit perspectives on the landscapes in which Lopez travels, and on the animals he encounters. His tolerant and sympathetic attitude towards the indigenous peoples and the land are expressions of those *odyssean* virtues that, according to MacLulich, stand in contrast to the *quest* heroes' tendencies to "impose themselves and their purposes" on their subordinates, on the natives, and on the land (75). As we shall see in Chapters Four and Five, these indigenous perspectives are what allow *Arctic Dreams* to comment on distinctly Western perceptions of the Arctic, and to present the kind of implicit critique of Western culture the MacLulich finds to be characteristic of *odyssean* exploration narratives (MacLulich 82).

Arctic Dreams is an *odyssean* text also in the sense that it is the "wanderings" of the explorer that "expose[s] the reader to modes of behavior and of thought that are beyond the range of everyday experience," and that causes the reader to critically question his/her own behavioral and conceptual frameworks (MacLulich 83). Yet we may detect an additional *quest* motif in this text that is associated both with Lopez's exposure to other cultural perspectives on the Arctic and with his observation and description of arctic natural phenomena valued "for their own sake" (MacLulich 75). This quest, I contend, is to culturally and scientifically update the perceptions of the North American Arctic of the modern Western audience to whom Lopez addresses his narrative.

Parry versus Scoresby: the lifeless versus the ecological Arctic

A comparison between Parry's *Journal* and Scoresby's *Account* reveals striking differences in how these two contemporaneous texts represent the Arctic. In his 1819-1820 expedition into Lancaster Sound, Parry successfully navigated and mapped more land than anyone would in the eighty years to follow (*AD* 353). The northwestern part of the North American Arctic he traveled was an unknown and potentially dangerous region it was up to him and others among the bravest of British Royal Navy men to traverse. Although Parry had previously served the British Royal Navy in protecting the productive waters of the Spitzbergen whale fisheries, his

Navy background and training rendered him more or less blind both to the (marine) animal life and the beauty of the scenery that Scoresby detected in arctic landscapes. In the introduction to his *Journal*, Parry confesses to his readers that “there is little in the scenery of the Polar regions on which the art of the painter can be exercised with advantage” (ix).

One might, of course, argue in support of Parry that the landscapes of Melville Island are much less picturesque than those of Spitzbergen that Scoresby visited, and that his overwintering here acquainted him with conditions of darkness and biological silence that Scoresby probably had not encountered. The fact remains, however, that despite the *Journal*'s several narratives of crewmembers' hunting expeditions into Melville Island, and despite the fact that the final inventory of “[t]he total quantity of game obtained for food for the use of the Expedition” included “3 Musk-oxen, 24 Deer, 68 Hares, 53 Geese, 59 Ducks, 144 Ptarmigans” (a total of “3,766 pounds of meat”), the overall image Parry presented of the Arctic was one of lifelessness (Parry 257). This vision was probably also the result of Parry's curious and unfortunate neglect to include the ‘Natural History’ appendices of his report in the originally published *Journal*, thus leaving out the most substantial accounts of the mammals, birds, and fish he observed on the journey.²⁴ What was included in the published appendices were technical details on things like magnetism, navigation and celestial phenomena, and a “Table of Day's Works kept on board the Hecla,” all of which contributed to the impression that Parry's was a narrative of men hard at work within an arctic space of an almost abstract, celestial character. As Loomis has pointed out, despite his otherwise scientific, understated, and unromantic mode of writing, Parry's description of the ambience of Winter Harbor as a “death-like stillness of the most dreary desolation, and the total absence of animated existence” (Parry 125; cf. *AD* 351) evoked a sense of vastness and lifelessness that made its nineteenth-century audience associate the Arctic with the natural sublime (Loomis 101-04).

Scoresby, on the other hand, traveled the Greenland Sea, a region of biological life of great commercial value engendering much human activity, and gives his *Account of the Arctic*

²⁴ The natural history appendices of Parry's *Journal*, accounting for observed arctic mammals, birds, fish (Captain Edward Sabine), land invertebrate animals (Rev. William Kirby), marine invertebrate animals (Captain Edward Sabine), shells (John Edward Gray), botany (Robert Brown), and rock specimens (Charles Konig), were published in 1823, after Parry's return from his second voyage for the discovery of a North-West Passage. They were then published separately as “A Supplement to the Appendix of Captain Parry's Voyage for the Discovery of a North-West Passage in the Years 1819-20,” with an introductory “Advertisement” in which Parry expresses his regret for the delay.

Regions from the perspective of the natural scientist and whaling captain. Unlike Parry, he dedicates the last one hundred pages of Volume I of his *Account* to “A Sketch of the Zoology of the Arctic Regions,” and the entire second volume to the whale fisheries. As we saw in Chapter One, Scoresby not only meticulously records scientific facts about the arctic natural environment; he also places them within larger, globalized or ‘planetary’ scientific models.

Scoresby’s understanding of how to contextualize detailed observations within larger scientific knowledge systems leads him, in the final chapter of Volume I, “A Sketch of the Zoology of the Arctic Regions,” to posit an early ecological model of the Greenland Sea. Scoresby bases this model on a series of hydrological observations of “several species of animalcules” and “minute medusæ and moniliform substances” present in these arctic waters in stupendous numbers, each of which he claims “are not without their evident economy” (Scoresby 180). Describing in detail the major links in this arctic marine food chain, from the polar bear down to these “smaller cancri, medusæ, and animalcules,” he ends by asserting how one can find in this seawater “a dependent chain of existence, one of the smaller links of which being destroyed, the whole must necessarily perish” (Scoresby 546). Proceeding to describe how the sea currents hold and protect these lives by keeping them in a continuous motion within life-enhancing environments, he ends by concluding that

[t]hus, by a most beautiful contrivance, a large portion of the surface of the globe is rendered habitable, which would otherwise be a solid mass of ice; and, by the warmth of the lower stratum of the polar sea, it is rendered congenial to many tribes of animals which must otherwise have incumbered other regions, now affording products useful for the subsistence of man. (Scoresby 548)

In this manner Scoresby’s *Account*, a hundred and fifty years prior to Lopez’s *Arctic Dreams*, presents an emerging image of a marine arctic ecosystem; an early sketch of what science of the day conceptualized in terms of ‘the economy of nature’ in the Greenland Sea.²⁵ Like Lopez’s later presentation of arctic ecosystems, Scoresby’s early ecological model emphasizes the dynamism of the physical environment, and the importance of this dynamism to (marine) animal life in the Arctic. In this particular passage, it reads much like a celebration of the bountifulness of nature in this most unexpected and impossible of places. However, as

²⁵ Donald Worster has identified Sir Kenelm Digby to be the first to use the concept of an “oeconomy of nature” in 1658 (37). Partly through Carl von Linné’s 1749 influential essay “The Oeconomy of Nature,” the concept during the eighteenth century came to incorporate a range of definitions indicating “the grand organization and government of life on earth” (Worster 37).

evidenced in his sketch of a “Fauna Arctica,” at other instances Scoresby’s representations of arctic animals display attitudes today deemed incompatible with the science of ecology, as well as with what Phillips has identified as the ecological point of view of Western nature writers and ecocritics (Phillips 42). I would nevertheless suggest the broad scope of Scoresby’s experiences in the Arctic (as explorer, scientist, and whaler) and the thematic and more *odyssean* structure of his *Account* to occasion the presentation of this early ecological vision of an arctic marine environment.

***Arctic Dreams* and arctic history as plurality**

It becomes evident to any reader of *Arctic Dreams* that Lopez has consulted a wealth of arctic exploration narratives as part of his investigation of the Arctic as a natural and cultural phenomenon. I have noted a few differences in the visibility and representation of *animals* between Parry’s *Journal* and Scoresby’s *Account* to exemplify the variety of animal descriptions that arctic exploration narratives harbor, and to reveal how quest narratives like Parry’s might more easily abandon representations of arctic flora and fauna in favor of the presentation of facts and incidents of value to the journey’s geographical quest. In making this comparison between Parry’s *Journal* and Scoresby’s *Account*, however, we need to consider the very different contexts in which these two explorers wrote: the different regions of the Arctic as well as the different times of year in which their travels took place. However, also descriptions of one and the same region may vary from chronicle to chronicle. An erudite student of the Arctic, Lopez is well aware of this. In the following I will discuss how he in *Arctic Dreams* draws our attention to the diverging perceptions of *the land* to be found within the literary tradition of arctic exploration.

Looking at how the journals of Samuel Hearne, John Franklin, Warburton Pike, and Ernest Thomson Seton present the tundra landscape north and west of Yellowknife, Lopez notes how disparate the land looks in these journals:

Hearne had lived off the land like his Slavey and Chipewyan companions on a journey to the Northern Ocean (1770-1772). The land does not take on the proportions of an enemy in his journal, nor does it seem bereft of life. A different understanding emerges from Franklin’s journal, in which the land reflects the name it was to bear ever after – the Barrens. (Franklin’s 1819-1822 expedition was troubled by execution, starvation, murder, and cannibalism). In Pike’s journal (1890) the tundra is construed as a wild place that sagacious and incessantly tough men are meant to subdue, to survive in. For Seton (1907) the same tundra is so benign, its

economic promise so bright, he even attempts to change its name from the Barrens to the Arctic Prairies.

The same land – plants, animals, small trees, weather, the low hills, rivers, and lakes – is, as one might easily guess, seen differently in different eras by men of dissimilar background. (*AD* 373)

Lopez's comparative reading identifies a series of different orientations toward the land present in these narratives of the northern tundra. The first is a sympathetic one that recognizes how the tundra contains and sustains life. Significantly, this attitude is expressed within the chronicle of an explorer who "lived off the land" like his indigenous companions. In narratives like Seton's, Lopez notes, a similar positive but more purely Western orientation leads the explorer to nurture great hopes of commercial exploitation. This exposes the extent to which even more positive accounts of the Arctic tend to present the land as a standing reserve of resources to be utilized for the benefit of man. Men like Franklin display a more overtly hostile attitude in which the tundra is seen as a barren wasteland not only devoid of but also antagonistic towards life; an environment leading even the best of men towards the very brink of both life and humanity. Having identified these very different perceptions and orientations towards the land, Lopez in *Arctic Dreams* proceeds to disclose professional background, personal experience, and historical context as factors shaping these individually recorded perceptions and representations of landscape.

As mentioned in Chapter One, historical contextualization seems to be a requisite part of Parry's and Scoresby's exploration narratives, but only in the sense of giving an account of the history of arctic exploration up until the point of the writer's own exploratory endeavors. *Arctic Dreams* adds a new dimension to the summative historical accounts of arctic exploration presented in Parry's *Journal* and Scoresby's *Account*. This is accomplished through Lopez's reading of old exploration narratives not only in search of the actual events of their histories, but in search of the personal and historical motivations that drove arctic explorers to the extremes of human courage and endeavor with which these narratives brim. Placing these exploration narratives within a broader cultural and economic context, Lopez shows how material and ideological forces interacted to equip and justify arctic expeditions. As this force field changed over time, so did both the nature of these expeditions and their justification. Lopez's outline of the history of arctic exploration, from the sixth-century Irish monks in search of a blessed landscape (*AD* 311) to contemporary oil companies' search for pecuniary wealth in the far northern coast of Alaska, thus becomes a tracing of what Western culture has assigned value to. Whether this be the monetary wealth sought in the Arctic in the

twentieth-century, or the nineteenth-century value found in the heroics of “exert[ing] oneself against formidable odds; [of] cast[ing] one’s character in the light of ennobling ideals” (*AD* 358), Lopez’s account concludes that Western travelers in the Arctic have never taken seriously the idea that natural landscapes possess inherent value. Accordingly, the difficulties involved in detecting the immediate value of the Arctic as (Heideggerian) standing reserve to modern human enterprise has frequently led to its characterization as a vast region of barren grounds.

What Lopez is after is precisely a way of inscribing intrinsic value to arctic natural environments and their animals that challenges this negative image of the region.²⁶ Indeed, his entire *Arctic Dreams* might be thought to express the dream or vision for the recognition of the inherent value of the wild or unaltered landscapes of the north. When this value is not generally acknowledged in the narratives of arctic exploration, Lopez explains this with the fact that these narratives generally describe the Arctic in ways marked by a profound sense of “disassociation with the actual landscape” (*AD* 358). Lopez himself, it seems, does not give up hope of finding within these less literary and more factual expressions of Western culture traces of other forms of perceptions of the land. He openly acknowledges that he continues to read these “histories that had been shaped by a sense of mission or purpose, or that were arranged to fit the times in which they were written,” with the hope of finding in them “a stray remark that [will] reveal an edge of the land previously undivulged, or an unguarded human feeling that [will] show the land as something alive” (*AD* 358-59). With this expression of purpose, Lopez signals his conviction that only by relinquishing the idea of the natural world as object, as inert space or mere background to the drama of human endeavors, may we arrive at an idea of the land as intrinsically valuable. The multitude of sources Lopez includes into his *Arctic Dreams* testifies to the rarity of such an idea of the land in the Western tradition.

As evidenced in the dissonant depictions of the arctic tundra presented by Hearne, Franklin, Pike and Seton, historical and personal perceptual frames color what passes for

²⁶ In arguing for the intrinsic value of the natural world Lopez advances the tenets of deep ecology: a contemporary form of Western philosophy offering alternative ways of perceiving the natural environment. However, as later chapters will reveal, through his representation of arctic animals and ecosystems Lopez promotes the idea of nature’s intrinsic value without falling into a pattern of dualistic thinking in which the human is still “the centre and pivot of value” (Plumwood 201). This form of thinking, Plumwood argues, is one from which neither deep ecology nor Romanticism has been able to liberate itself (201).

objective descriptions of any given reality. This fact makes Lopez mindful of the danger of making “a single appealing narrative stand for the entire experience, or worse, to stand in place of the experience” (*AD* 374). He implicitly argues that only a representation of the Arctic that allows the inclusion of a range of perspectives or perceptual frames can hope to communicate something resembling a complete image of the region. Significantly, this image is neither objective nor consistent.

Lopez’s own form of critique of the ‘single vision,’ whether personal or scientific, explains why we find different and sometimes contradictory representations of the Arctic side by side in *Arctic Dreams*. At times, like in the tundra passage above, Lopez reflects upon their coexistence and difference. At other times such representations are simply there in the text, their real and apparent contradictions unresolved. The result is a text that from a range of Western (and other cultural) perspectives presents a heterogeneous, prismatic, and somewhat playful of image of the Arctic. Unlike in earlier nineteenth-century exploration narratives, the coherence and omniscience of the narrator’s viewpoint is in *Arctic Dreams* never absolute, but constantly challenged by other – historical as well as contemporary – points of view.

The historical representations of the Arctic included in *Arctic Dreams* offer a range of conceptualizations up for critical inspection. This critical inspection is given impetus by Lopez’s recognition of the intertextual nature of perception; of “how much a description of the land in an early report affects the description of the same landscape in a later report” (*AD* 374). The quotation signals that Lopez acknowledges precisely what Phillips critiques nature writers for forgetting: the extent to which anyone’s visions of ‘true’ or ‘pure’ nature are the result of their own book learning, byproducts of their cultural education. Whereas Lopez’s point is later expanded beyond a comparison of perspectives found in different texts of the same tradition, even such intra-cultural forms of comparison have the power, Lopez claims, to expose “the gaps, the strange lacunae that emerge in our understanding of anything” (*AD* 374). In identifying the existence of such knowledge gaps, such lacunae in sociocultural and sometimes individual perceptual frames, Lopez hopes to make us reflect upon these limitations, and, in our contemplations on the Arctic, move beyond them. In this manner *Arctic Dreams* makes use of narratives of exploration to present the Arctic as something other than a mere object of investigation and exploitation, and to raise some of the same epistemological issues as did Thoreau in his later and more scientific writings.

Mapping the Arctic

The mapping of the Arctic in Parry's *Journal*

Perhaps even more authoritative than the explorer's narrative evocation of the lands he has traversed are the maps he has produced over the hitherto unknown regions of the world. As mentioned in the section on the space of modern science in the previous chapter, the cold and 'alien' expanses of the Arctic seem in many ways to represent a particularly suitable environment for the kind of controlled scientific analysis that promises absolute knowledge. The vastness and seeming barrenness of arctic landscapes invite not only the clear and easy identification of singular objects present on the surface of its white spaces, but also the spatial abstractions of mapmaking.

The power of human reason over space is beautifully exemplified in Parry's early "General Chart Showing the Track of H. M. Ships *Hecla* & *Griper*, from the Orkneys to Melville Island, North Georgia," presented in the opening pages of his *Journal* (Figure 1). In skillfully determining the exact position of the *Hecla* as she traversed the ice of what is now known as the Parry Channel, Parry and his crew applied Euclidian geometry to map and open for further exploration regions of the western Arctic through which the British hoped eventually to find a passage to the Pacific Ocean. Parry's map is constructed on the basis of his crew's meticulous recordings of exact geographical coordinates in these northern, uncharted waters. The details of the map are the result not only of the ships' line of advancement, but also of the range of human vision aided by the technological instruments for measuring space and distance.

Parry's detailed listing of technological instruments in the Introduction testifies to their importance in guiding the expedition through this first long stretch of the Northwest Passage, and in constructing this and other of the expedition's detailed 'charts.' So do Parry's several depictions of crewmembers in the process of scientifically measuring the different aspects of the arctic natural environment, and the many appendices in his *Journal* listing "Observations to determine the Latitude, and the Longitude by Chronometers," "Abstract of Observations on the Dip of the Horizon at Sea, with Dr. Wollaston's Dip Sector," and "Magnetic Observations."

On looking at Parry's map (Figure 1), one is struck by how the line that marks the westward advancement of the ships towards the shores of Melville Island extends the reaches of the known world through cartographic inscription of new coastlines. Lands on either side too far removed from the eye, or obscured by unfavorable weather conditions, simply do not

exist. Posing no boundaries to the human eye, no zone of contact, they slip out of the scientific representation and into transcendent space. The line of cartographic inscription marks the line of Parry's experience, the line of human contact with the land, the line of the land's resistance. On the map there is beyond this line only what is commonly described in terms of blank space or undifferentiated nothingness. As this blank space is also the abstract and two-dimensional space of the cartographic system, the map creates the impression that this space is somehow already controlled – or at least controllable. Only the empirical measurement of reality is lacking.

It is easy to be impressed with the skill with which Parry and his men, with the aid of relatively simple instruments and complicated mathematical calculations, took down their exact geographical locations in vast and unknown arctic space. But however theoretically ideal in its barrenness, the Arctic nevertheless presented particular challenges to scientific observers (and arguably continues to do so). Because of the way the monotonous monochrome surfaces of the Arctic may mislead vision, observers at times had to rely more on technological instruments than on the human eye to measure space and distance. At other times, optical illusions, darkness, or whiteout forced them to ultimately trust the mathematical calculations of their rational minds to determine their exact geographical position. Thus if we read closely the actual narrative of Parry's *Journal*, we see that it is filled with descriptions of the hardships and dangers facing his crew as they proceed through the actual physical spaces of the North-American Arctic. In this sense the text itself represents a counternarrative to the map's representation of space as controllable.

Parry's account of the events of September 1819, for instance, reveals the explorers' mastery over space to last only as long as they stay on the ship. On September 11th, Mr. Fife departs the *Griper* with a party of six to go hunting for "some rein-deer and musk-oxen, whose tracks had been seen in a ravine to the westward of the ships" (Parry 82). On this very first attempt at a hunting expedition, the men soon lose their way, and the land threatens to engulf them all. The initial search party Parry launches to their rescue meets with heavy snows, loses its way "in spite of every precaution," and is only able to find its way back to the ships as the crew fires signal rockets after dark (Parry 82). Following the second night after the hunting party's departure, Parry sends one of his Lieutenants out into the white spaces of Melville Island with "the Hecla's fore-royal-mast rigged as a flag-staff" to be "erected on a conspicuous hill four or five miles inland" (Parry 82). As also this landmark is soon obscured by heavy snowfall, four search parties are the next day sent ashore, armed with a number of

pikes with flags to be placed “at regular intervals” as the men progress from the ship and into the unknown landscape. These pikes do indeed, as Parry hopes, serve the “double purpose of guiding [the search parties] on their return, and of directing the absent party ... to the ships” (Parry 82). In the final instance, then, only by their own clever establishment of spatial markers – of their drawing of lines from an established reference point, into the spatial void and back again – do the Britons save their lives.

Despite their skills in technically aided navigation through unknown sea straits, Parry’s crew is unable to navigate the space of Melville Island. The only features of this landscape they recognize, and manage to navigate by, are their own flag-posts. Parry’s narrative of this first and nearly fatal hunt thus beautifully exemplifies how the cartographic endeavors of nineteenth-century arctic explorers define a set of markers or coordinates to be superimposed upon a landscape that in effect hides and/or renders invalid its features. It is a telling fact that the first and most conspicuous flag-staff landmark was confused by a disoriented Mr. Fife for a smaller one “that had been erected some days before at a considerable distance to the eastward of our present situation” (Parry 83). This mistake led the missing Mr. Fife and his company momentarily to proceed in the opposite direction of the ships. By confusing one of these coordinate markers in featureless space for another, Mr. Fife exposes the simultaneous power and insufficiency of the abstraction. What began as a hunt for wild game spurred on by the explorers’ recognition of signs of animal life in the land ends by confirming their complete inability to read any other landscape sign. The event also confirms the land’s ability to play games with the most rational and well prepared of men. Exposed is their total reliance on their ships as places of safety and subsistence in an otherwise disorienting and life-threatening environment. Exposed is also the fact that only from the safe and distanced position of the ship does the observing eye of the explorer control arctic space. Parry’s narrative of the unsuccessful hunt proves once again how experience contrasts with representation.

The abstract spatial systems of the map present real and agentic landscapes in terms of bounded and “passive space” ready for “systematic description” and – if desired – “organized settlement and political control” (Bryson 14; cf. Merchant 51). This applies even to maps like Parry’s where the coastlines outlined give way to the seemingly unbounded blankness of the unknown parts of the land. However, as Parry’s narrative reveals, gaining control over these landscapes may in reality prove impossible – and attempts at doing so quite dangerous. Unlike in explorations further south on the American continent, organized settlement and

political control were never issues of primary concern in nineteenth-century arctic explorations. Another and more symbolic form of control was available to arctic explorers. The Parry expedition's extensive naming of topographic features after British royalties, friends, colleagues and notable members of the Royal Navy, and after British home landscapes, does indeed represent a distinctly British claim to this arctic space. And although Parry's narrative supported the notion that apart from the sought-for North-West Passage there was little or no material gain to be won in the Arctic, the maps his expedition produced of this arctic frontier functioned like the maps of other frontiers by setting the agenda for future explorations and map-making efforts in the Arctic.

Maps and their interpretations in *Arctic Dreams*

In *Arctic Dreams*, Lopez uses his sojourn in the seemingly "bleak and forsaken" landscape of the narrow Pingok Island off the northern coast of Alaska to contemplate the art of cartography and Western conceptions of arctic space (*AD* 255). At one point in this narrative, Lopez too finds himself overcome by monotonous topography and difficult weather conditions in a way that makes him absolutely dependent on human-made linear direction markers. Having left the protection of a temporary building, he follows a bundle of electrical cables onto the ice, but soon finds himself fearful of being overcome by the wind and "losing touch" with this man-made "umbilical chord" – his only hope of finding his way back to shelter and survival (*AD* 268). The scene signals the same vulnerability to the forces of the surrounding landscape that Parry's hunters experienced. Yet rather than ending in the celebration of the rational mind's successful ordering or 'taming' of landscape, Lopez uses the experience to ponder how other living beings navigate the landscape, and are affected by "the imperatives for food and shelter" (*AD* 268).

Indeed, Lopez does not inform his readers of how the snowstorm incident ends. We follow the focalizer as he carefully holds on to the technological umbilical-chord that keeps him anchored and oriented in an otherwise disorienting environment, before the narrator merely lets go of this narrative thread and drops into a previously established narrative of wandering Pingok Island watching for animals. In this manner Lopez's text refuses to enact the celebratory return of the modern human being to the safety of the constructed environment through the aid of technology. Instead its narrative advances in the manner of the fox of Pingok Island, running from one point of interest to another, unexpectedly stopping to rest, suddenly changing direction to investigate something new. According to Lopez this form of

movement through the terrain is also characteristic of the Inuit, who, rather than making a “straight, relentless dash for a ‘goal’” is incessantly “turning aside to investigate something unusual, or moving ahead in a series of steps punctuated by short stops for tea” (*AD* 276).

Unlike arctic quest narratives, the narrative of *Arctic Dreams* does not follow a clear itinerary, but jumps from place to place between chapters, or traces the movement of animals across great stretches and/or miniscule pockets of land. In this manner the text signals its simultaneous dependency on spatial and narrative lines of advancement and a letting go of such lines. By relinquishing the coherent narrative of the linear journey, I would argue that the text also leaves the digressive structure of the arctic *odyssey* in favor of the more essayistic form of the nature writing genre. The letting go of traditional narratives of advancement through space can also be read as a form of experimentation with, or movement towards, an indigenous perception of space. This different perception of space is advanced through the text’s representations of animals, and will be treated in Chapter Five.

Lopez does, however, admit to relying on maps in his arctic travels, and to the “mixture of satisfaction and desire” maps afford by pinpointing “exactly how one is situated in the vastness” of arctic landscapes (*AD* 280). At the same time he is aware of the danger inherent in these abstract representations of reality. Long experience in traveling by arctic maps has taught him that such maps represent the “projection of a wish that the space could be this well organized,” and that reality tends to present a variety of ways of blocking the fulfillment of this wish (*AD* 279).

The inaccuracy of geographical reference points is but the first of a three-fold critique Lopez aims at maps – those “[n]eatly folded simulacra” of the world (*AD* 280). The purpose of this critique is to repudiate the idea that maps present objective representations of landscapes, and to emphasize the way they organize the land “according to a certain sense of space and an evaluation of what is important” (*AD* 279). It is in recognition of the apparent “authority” of maps over real landscapes, an authority he in part ascribes to the seductiveness of the “orderliness, simplicity, and clarity of the presentation” of the modern Western mathematical organization of space, that Lopez find this issue pressing (*AD* 280). As he points out, the standard Mercator projection, by which the three-dimensional globe is converted into the two-dimensional space of the map, leaves no other places so radically misrepresented as the poles. In this standard map, lands already deemed “obscure” by more southern Western cultures, are “banished to regions of distortion” (*AD* 281). Here the errors of the projection produces the sense that the Arctic contains landscapes existing on the very

borders of a world that somehow “never comes together” (AD 284). The authority of traditional Mercator maps, in other words, corroborate our Western conceptions of arctic landscapes in terms of expanding, almost incalculable vastness.

To amend this distortive image of the Arctic, Lopez presents us with a corrective “polar projection,” the purpose of which is to initiate the slow and conscious effort to ‘unlearn’ the representations of the Arctic according to Mercator maps (AD 281). Also Scoresby’s *Account*, which, as I have argued, places the Greenland Sea within a hydrological model of global ocean currents and presents us with an image of its system of ‘natural economy,’ offers a polar projection in the form of a “Hydrographical Chart of the Arctic Regions Including the Late Discoveries of Captain Ross and some Original Surveys” (Figure 2). In a polar projection map the Arctic Ocean is centrally located and arctic landscapes are “accorded their proper proportions” (AD 281). To Lopez, however, the most valuable aspect of this map is the way it emphasizes “the geographical continuity of the region” (AD 281). This recognition of geographical continuity is vital in the transformation from thinking about the Arctic as *space* into thinking about it in terms of a *place*. It further makes us realize that an experiential and more authentic understanding of the Arctic must always take into account the fact that this is predominantly a marine environment; one to a large extent determined by ocean currents and ice movements. This is an important point to a text like *Arctic Dreams*, which aims to present a scientifically accurate presentation of arctic animals and their ecosystems.²⁷

The second aspect of Lopez’s critique of maps involves an examination of the Western history of cartography. The aim of this examination is to expose the power with which cultural perceptual frameworks shape the representation of foreign landscapes. This is why Lopez initiates his account of the history of cartography by stating that “[l]ong before it became a field science, cartography was a contemplative pursuit” (AD 281). Traditionally, his argument goes, maps have been, and continue to be, part of cultural discourses with great influential power over the representations produced. Lopez shows us how the slow and gradual historical process of replacing imagined arctic lands by existing ones was hampered by the respect arctic explorers and map-makers paid, first, to authoritative written sources of

²⁷ William Scoresby’s polar projection map is included in the appendix section of the Second Volume, and presents the geography of the Arctic as known at the time. Although great regions of this map thus remain ‘blank space,’ the point of view of this hydrological map is nevertheless distinctly arctic.

knowledge about the Arctic, and second, to what gradually became recognized as the scientific discourse of cartography. Lopez quotes geographer John L. Allen to make a point of how explorations of new lands are at the outset often guided by “objectives based on the imagined nature and content of the lands to be explored” (qtd. in Lopez *AD* 294). Even field observations, Allen argues, suffer from this perceptual framing, as they tend to be “interpreted in the light of persistent illusions and by attempts made to fit new information into partly erroneous systems and frameworks of geographical understanding” (qtd. in Lopez *AD* 294). And while Lopez’s account of the history of cartography in the Arctic admits that maps from the sixteenth century onwards gradually became more accurate, his point is that even more contemporary maps represent a form of intellectual and perceptual framing of the region. Offering a selection of historical examples to substantiate Allen’s claims, Lopez communicates the extent to which geography as presented on the map is still, irrevocably, a geography “of the mind” (*AD* 294). The multiplicity of maps that exist for the Arctic – and that would, if you had the time to study them all, leave you a veritable “Arctic Marco Polo” (*AD* 280) – presents a multifaceted image of the Arctic representative of a range of perceptual frames.

Even this deconstruction of the supposedly objective representations of cartography is not entirely satisfying to Lopez. Perhaps this has to do with the undeniable fact that, like the maps of Marco Polo, maps of the Arctic are generally the product of white Western travelers and explorers, and hence represent a Western perspective on arctic landscapes. To get beyond this cultural limitation, Lopez turns to the fields of human geography and anthropology in order to broaden the idea of the perceptual framing he has associated with the science of cartography to include human perceptions of the world in more general terms. Referring to Benjamin Lee Whorf and Franz Boas, Lopez evokes an early twentieth-century tradition in anthropology that he claims saw “human culture as a mechanism for ordering reality” (*AD* 275). In contrast to former Victorian traditions, which according to Lopez “considered all cultures reducible to a set of ‘true’ observations about the world,” Lopez valorizes this development in anthropology on the basis of its radical relativization of perspectives; its claim that “no ultimate reality” exists, only a series of cultural realities that each has its own perception of, and may be “simultaneously projected onto[,] the same landscape” (*AD* 275). Lopez finds support for this relativization of perspectives in the more recent work of Joseph Campbell and Claude Lévi-Strauss (*AD* 275). He refers to Richard Nelson, Edmund Carpenter and Hugh Brody for examples of distinctly Inuit aspects of experience and of ways

of perceiving the land. The mention and sympathetic reading of these anthropological works in *Arctic Dreams* effectively dethrones authoritative Western (European and scientific) perspectives on the Arctic.

It is by opening up for indigenous perspectives on the arctic landscapes through which he travels, and by ascribing the same value to these perspectives as to his own Western one, that Lopez in *Arctic Dreams* can present us with an idea of these landscapes as seen from *within*. The relativization of perspectives functions at one and the same time as prerequisite and justification for the text's turn towards an experiential perspective on the land – what a more recent anthropologist working on circumpolar hunter cultures, Tim Ingold, has characterized in terms of a *dwelling perspective*. From this perspective, the land is figured in terms of a *place* rather than in terms of Western conceptions of space. Doubtlessly influenced by human geographer Yi-Fu Tuan's 1977 *Space and Place: The Perspective of Experience*, Lopez refers to Tuan for an explanation of the difference between space and place. Whereas *space* is described as “amorphous,” generating “a feeling of freedom and adventure, and [of] the unknown,” *place* is where we feel “a sense of attachment, of shelter, and comprehension” (AD 278). Although the following is not cited in *Arctic Dreams*, Tuan also explains that “[s]pace’ is more abstract than ‘place,’” and that “[w]hat begins as undifferentiated space becomes place as we get to know it better and endow it with value” (Tuan 6). Unlike spaces, places allow *dwelling*; they are “where biological needs, such as those for food, water, rest, and procreation, are satisfied” (Tuan 4).

These definitions of space and place make it easy to see why the Arctic represented space to Western explorers to whom survival in the region meant bringing with them every means of existence. A conception of the Arctic as space is particularly evident in Parry's *Journal*. Tending to conceal the presence of the few animals of Melville Island, Parry's text reveals the extent to which the Arctic was to Parry generally valueless except for as a navigable passage to the west.

In contrast to Parry, Lopez focuses a large part of his narrative on animals in the Arctic. In pondering how the fox navigates the seemingly featureless landscape of Pingok Island, implicitly recognizing that the fox doubtlessly finds in this landscape “the imperatives for food and shelter” met (AD 268), Lopez recognizes that what is for him arctic *space* is for the fox a supportive and valuable *place*. What qualities of the landscape make it a valuable place for the fox is, however, impossible for him to determine. Paraphrasing Tuan, Lopez argues that “[i]t is precisely what is *invisible* in the land ... that makes what is merely empty

space to one person a *place* to another” (AD 278). And while Tuan makes this point based on his observations of how human cultures endow places with value according to what stories and memories these places hold, Lopez in *Arctic Dreams* makes the case that it is likely that, like humans, also animals in the Arctic operate in *places*, not spaces. (Chapters Three through Five will reveal in more detail how Lopez’s portrayal of animals engenders a sense of the Arctic as place rather than space.)

Place, space, and ‘the country of the mind’

Maps turn places into spaces. Whereas Lopez presents the indigenous history of Pingok Island in terms of a century-long history of *dwelling*, he describes the Western history of the island to “comprise few events,” most of which confirm Western conceptualizations of the Arctic as space to be controlled and/or claimed (AD 261). The critique Lopez aims at cartography as he wanders Pingok Island ends by affirming what is part of place but not space, and hence what both maps and science fail to include. This is the land as lived, as seen from within. The mind *in* the landscape relates to the landscape through experiences in it. These experiences become part of place-specific and, in indigenous cultures, mythical stories. As long as the country remains unaltered, Lopez claims, the landscape confirms and corroborates these stories, and the mind finds itself in harmony with the natural world. In *Arctic Dreams*, as in much nature writing, harmony with the natural world is the ideal towards which the text proceeds. Also in concord much nature writing, indigenous hunting people are in *Arctic Dreams* believed to have sought and “achieve[d] a congruent relationship with the land” (AD 297).

This does not mean that Lopez reduces Inuit relationships with the land to the kind of mystical or ‘epiphanic’ relationship that Phillips ascribes to nature writers. To the contrary, Lopez emphasizes that “Eskimos were making and using maps long before they met Europeans, both as mnemonic devices for ordering extensive systems of place names and as navigational aids” (AD 287-89). Making a point of how Western explorers and ethnographers have in past centuries often found “remarkable” the Inuit’s skills in drawing from memory detailed and accurate maps of vast regions of land, Lopez provides evidence of these Inuit skills by presenting within his text a comparison of an Inuit map drawn from memory and a map of the same region “generated with modern cartographic techniques” (AD 287, 288). We also find Lopez in his discussions on Inuit representations of space praising the superiority of

Inuit maps made of wood, which he finds to be “excellent for sea travel because they render[] coastlines in three dimensions,” are “impervious to weather, and [will] float if dropped overboard” (AD 289). In arguing that Inuit “maps were a great boon to arctic travel and exploration,” Lopez also offers a rare acknowledgement of Inuit contributions to Western cartographic knowledge of the Arctic (AD 287). In Lopez’s discussions, then, the Inuit *dwelling* perspective does not block or reduce the accuracy of the empirical interpretation of reality. For evidence of this, Lopez refers to behavioral geography (AD 295), a form of geography that from the 1960s onwards has shown how experiential knowledge of a given landscape also involves the development of inner, mental maps.

What, then, is the point of Lopez’s parallel narrative of strolling through the history of cartography as he strolls through the landscape of Pingok Island, and of his multifarious references to cartographical and geographical theories? Why does he make Pingok Island into a representative of an arctic region that the text makes us see through a vast array of ‘mappings’ or perceptual frameworks: through the outsider’s perspective framed by science, through individual and/or cultural desires and imaginations, and through the insider’s *dwelling* perspective? More than merely deconstructing cartographic objectivity, Lopez wishes to display the involvement of the mind in the perception of landscapes, and propose an alternative relationship between mind and landscape that includes indigenous knowledge and perspectives. This alternative form of relationship is outlined in his own definition of a “country of the mind” in terms of a “landscape evident to the senses, as it is retained in human memory and arises in the oral tradition of a people, as a repository of both mythological and ‘real-time’ history” (AD 295-96).

The ‘country of the mind’ is different from the ‘geography of the mind’ in its phenomenological ‘insider’ perspective of the landscape. As Lopez specifies, the ‘country of the mind’ is not personal. Nor does it interpret relationships in actual landscapes as reflections of relationships in some ultimate spiritual landscape (AD 295). When Lopez writes that “[t]he land is like poetry: it is inexplicably coherent, it is transcendent in its meaning, and it has the power to elevate a consideration of human life,” this refers neither to transcendence in the Romantic Transcendentalist sense of the term, nor to the anthropocentric and individualistic perspective characteristic of the Romantic tradition (AD 274). The ‘country of the mind’ presents the land from the perspective of empirical experience, but in a way that significantly does *not* include the objectifying and reductive practices of empirical science with their written or cartographical forms of representation. It is a simultaneously experiential and

historical vision of the landscape that gives precedence to indigenous ways of seeing. This is the perceptual framework of Lopez's poetic vision of the arctic landscapes in which he travels.

Promoting the idea of a 'country of the mind' does not lead Lopez to relinquish maps or to denigrate the science in which they originate. To the contrary, *Arctic Dreams* offers a scientifically engaged account of arctic ecosystems and their animals, with in-text maps to illustrate important regions or features of the land. As I will argue in chapters to come, twentieth-century developments in science play an important part in Lopez's rewriting of arctic landscapes. And once the representative biases and shortcomings inherent in Western map-drawing are exposed, and an understanding of how the human mind works in constructing maps is coupled with an understanding of how it relates to actual places in actual landscapes, maps become an asset rather than a threat to genuine knowledge about the Arctic. Lopez emphasizes this valorization of maps at the very end of his discussions on cartography in the chapter entitled "The Country of the Mind." Here he figures an ideal environment of true sharing of knowledge as one in which "each [person] can roll out his or her maps with no fear of contradiction, of suspicion, or theft" (*AD* 301). As long as the contextual situatedness of cartographic knowledge is acknowledged, a multiplicity of maps becomes a source of varied and complex knowledge about the region. In light of the historical account of arctic exploration *Arctic Dreams* offers, this valorization of arctic maps further functions as a tribute to the human will to knowledge, even under the most difficult of circumstances.

In his contemplations on cartography, Lopez puts his contemporary critique of the reductive nature of maps into dialogue with the imaginative aspect – or contemplative pursuit – of early cartography. As part of exploration, science in general, like cartography in particular, has its own "dashed dreams" and "hopes" to fulfill (*A D* 299). It too may engage the imagination in new perceptions of the land. Lopez exemplifies this point by observing how the two paleontologists he travels with to Banks Island, on the basis of their excavations of 40 to 50 million years old fossils are able to 'see' the gravel landscape of Banks Island as a forested landscape inhabited by creatures like "three-toed horses, ancestral flying lemurs, and prehistoric crocodiles" (*AD* 299). In the chapters to follow, I will discuss how Lopez, similarly to the way he valorizes maps, also valorizes modern science for its more recently developed and alternative approaches that explore the natural world in less dualistic and less objectifying terms. These new scientific perspectives correspond better than traditional (mechanistic) science with indigenous ways of perceiving the natural world, and may help us

to refrain from performing in the Arctic yet another “carnage of wealth” like the one present as tacit backdrop in Scoresby’s *Account* as well as in the tale of *The Cumbrian* (AD 6). In *Arctic Dreams*, this is Lopez’s hope *for* science.

Throughout its extensive account of the Arctic, *Arctic Dreams* clearly announces its ties to the literary tradition of arctic exploration narratives. The digressive narrative form and the hybrid nature of the arctic *odyssey* are in Lopez’s text augmented by the inclusion of a range of exploration narratives harboring perspectives on the region different from Lopez’s own. By bringing into his contemplations on the Arctic such a multitude of texts and maps, Lopez at one and the same time exposes the limits and biases of the individual representations, and the astounding variety with which the Western tradition of arctic exploration literature has portrayed the region. I would argue that Lopez’s deconstruction of the authoritative representations of this tradition is a prerequisite both for the conception of the Arctic as *place*, and for the affirmation of phenomenological knowledge of the land. As the following chapters will reveal, phenomenological experience is of vital importance to Lopez’s own portrayal of the Arctic.

Chapter Three: Arctic animals and Lopez's search for a viable natural philosophy

I remember sitting in this cabin in Alaska one evening reading over the notes of all these [wolf] encounters, and recalling Joseph Campbell, who wrote in the conclusion to *Primitive Mythology* that men do not discover their gods, they create them. So do they also, I thought, looking at the notes before me, create their animals.

BARRY LOPEZ, *Of Wolves and Men* (5)

Just as Scoresby opens his *Account of the Arctic Regions* by connecting the arctic seas with a global system of ocean currents, Lopez in the opening “Arktikós” chapter of *Arctic Dreams* situates the physical Arctic within a global continuum of light, plant and animal life. Noting that even at present “[t]here is no generally accepted definition for a southern limit to the Arctic,” he goes on to account for some of the more recent attempts to define the Arctic according to its arrangement around several north poles, including the celestial pole, the geographic pole, the magnetic pole, the geomagnetic pole, and (earlier also) the “Pole of Inaccessibility” (AD 19). Prior to this, Lopez has evoked Western culture's long and heterogeneous history of imagining the region. Thus the Arctic, it seems, is both physically and conceptually slippery.

Lopez's introduction to the Arctic in “Arktikós” begins by tracing human imaginings and definitions of the Arctic, moves through the description of light regimes and their importance to plant and animal life, and ends with the narrator waiting for the coming of animals: of narwhals at the edge of the ice. The next four chapters, approximately half the book, are dedicated to the presentation of arctic animals within their natural habitats. Like the Arctic, *the animal* has throughout Western history been a slippery concept, one fraught with uncertain boundaries and profoundly engaging to the human imagination. This chapter outlines some of the characteristics of modern Western culture's conceptions of animals, and the ways in which Lopez through his writing questions and attempts to alter these. It will further present Lopez's idea of a more ‘viable natural philosophy’; one he hopes will have the power to ameliorate the modern relationship between humans and animals. I will investigate how Lopez, through a combination of *Umwelt* theory, field biology and Inuit epistemology, moves away from a mechanistic and reductive representation of animals. My close reading will focus particularly on the two chapters on the narwhal and the polar bear. In his

descriptions of the narwhal, Lopez explores issues of context specificity, perspective, ancestry, and the limits to knowledge. My analysis of *Arctic Dream*'s "Tôrnârssuk" chapter examines the way in which Lopez's representation of the polar bear makes difficult our continued conceptualization of the animal as being different in nature and *hyper-separated* from the human.

The Arctic defined through animals

Arctic Dreams is a text of environmental concern for the arctic wilderness. The text itself explicitly aims to draw the reader "back to the concrete dimensions of the land" in the hope that the key to "devis[ing] an enlightened plan for human activity in the Arctic" lies in "a *more particularized understanding* of the land itself – not a more refined mathematical knowledge but a deeper understanding of its nature, as if it were, itself, another sort of civilization we had to reach some agreement with" (*AD* 12, italics mine). This more particularized understanding is sought through the establishment of an ecological vision of the arctic wilderness. With the aim of communicating to its readers an image of the complexities of the arctic ecosystems, *Arctic Dreams* moves beyond a mere depiction of wilderness as scenery which, according to Paul Shepard, has served to "relegate[] it to the categories of space and use, to the canons of taste," and hence deprived it of intrinsic value (*Carnivore* 148). As Sherman Paul has brought to our attention, Lopez's text does this through an aesthetics that promotes "an ecological awareness of [the world's] interrelationships and interdependencies" (Paul 98). In the next few chapters it will become evident how important the depiction of animals is to this aesthetics, and how the ecological vision of *Arctic Dreams* involves a distinctive and singular conception of the interconnectedness between human and animal.

Arctic Dreams opens with the construction of an ecological vision of the Arctic in which the lives of animals and the relationships that connect the living and nonliving entities of the ecosystem are highlighted. Within this setting, the many and detailed descriptions of animals serve (at least) two purposes. One is to overcome the notion of the animal as a mechanical and auto-responsive being qualitatively different from man, and therefore unable to engage us in conversation or into moral obligation. The second is to provide an image of the Arctic as a complex living ecosystem: as itself a living animal endowed with agency and value. In allowing agency and response to arctic animals, Lopez opens up the possibility for a

dialogical and interconnected relationship with the world of animals. In *Arctic Dreams* this relationship depends upon a general human sensitization towards the physical environment.

The North American Arctic that Lopez depicts in *Arctic Dreams* constitutes a region of large, open (and often disorienting) spaces dominated by water in liquid and solid form. The regimes of light and darkness here are vastly different from those of the narrator's own home region, and vegetation is sparse, if at all present (*AD* 37). Almost paradoxically, the very bareness of the landscape causes Lopez to assert that “[a]nimals define much of the space one encounters in the Arctic because the land, like the sea, is expansive and there are so few people about” (*AD* 162).

As Lopez realizes, “[t]he overall impression, [upon entering the Arctic] from the South, would be of movement from a very complex world to a quite simplified one”; to one in which the bare land “would seem to have run out of the stuff of life” (*AD* 24, 25). Many of the places he visits take the shape of “rare, rich oas[es] of life surrounded by vast stretches of deserted land” (*AD* 126). That Lopez finds these oases to be rare indeed is evident in his critique of what he describes as Vilhjalmur Stefansson's “promotion,” in his 1922 *The Friendly Arctic*, “of the Arctic as a land overrun in every sector with animals” (*AD* 383). Lopez is as critical to this portrayal of the Arctic as he is to the British explorers' perceptions of it as a desert (*AD* 382). The true nature of the Arctic, Lopez asserts, is that it “in some places is truly empty; in other places it is only apparently empty” (*AD* 383).²⁸ Unlike the older ecosystems of more southern climate zones, the complexities of the arctic ecosystems lie neither in a long evolutionary history nor in a multiplicity of species. Rather, Lopez claims, the complexities of arctic ecosystems are to be found in their characteristic temporalities: “with an intricacy of rhythmic response to extreme ranges of light and temperature. With the seasonal movement of large numbers of migratory animals. And with their adaptation to violent, but natural, fluctuations in their population levels” (*AD* 25). Whereas sunlight is what ultimately determines this rhythm, Lopez allows the animals of the Arctic, their adaptations to and movements through the land, to define the region. Animals further define Lopez's Arctic through their affective impact on the human traveler who encounters them in seemingly ‘empty’ landscapes, and through the way they act as markers of otherwise undetectable

²⁸ As will become evident in subsequent discussions of Lopez's arctic catalogues, the vast arctic spaces devoid of animal life that are in this early part of *Arctic Dreams* described in terms of ‘emptiness’ are later in the text revealed to contain multitudes of material phenomena possessing agentic qualities.

ecological networks of interrelationship. Also the very structure of the text testifies to the way animals define the Arctic of *Arctic Dreams*. In chapters two through four, which constitute the first third of the book, (and which are entitled “Banks Island: *Ovibos Moschatus*,” “Tôrnârssuk: *Ursus Maritimus*,” and “Lancaster Sound: *Monodon monoceros*,”) the presentation of arctic landscapes and ecosystems revolves around “the concentrated portraits” of the muskox, the polar bear, and the narwhal (Buell *Writing* 220). Chapter five, entitled “Migration: The Corridors of Breath,” ends this animal-focused part of the text by advancing Lopez’s vision of the Arctic itself *as* animal. (See Chapter Five of this dissertation.)

For those with “no interest in the movement of animals,” like early British explorers like Parry, the apparent absence of animals confirms the notion of the Arctic as wasteland (*AD* 383). When present in their narratives, animals are generally described in terms of nuisances, threats, or obstacles to human colonial projects. As *Arctic Dreams* makes apparent, these animal observations lack realism and are colored by irrational emotional responses and cultural preconceptions. The British explorers’ treatment of the polar bear, Lopez comments, displays a shocking want of empathy. This is very likely the result of these explorers’ conceptualization of the Arctic as an antagonistic natural force, with physical and biological opponents to be survived and/or ultimately conquered.

But also for people lacking not interest but knowledge of animals, the image of the Arctic becomes skewed. Even if the place of a bird rookery or a caribou calving ground is identified (both in which tens of thousands of individuals gather at specific but slightly varying times of the year), if one does not know *when* as well as *where* to look, evidence of life remains undiscovered (*AD* 383). Thus Lopez communicates to his readers that an authentic image of the Arctic can emerge only when a sensibility towards animals and the way they conduct their lives is coupled with an acknowledgement of the particularities of the arctic ecosystems. The very first chapter of *Arctic Dreams* (“Arktikós”), in which Lopez presents the North American Arctic to his readers, underlines this topos. It ends by asserting that those who do possess this sensibility, like the Tununiarusirmiut hunters Lopez has accompanied onto the ice to hunt narwhals, know without doubt what gives them happiness and a sense of wealth: “An abundance of animals” (*AD* 41). An abundance, we should note, of *living* animals making their presence known to the Tununiarusirmiut at the edge of the ice floe where their two worlds meet.

Of animals and men

A profound and long-term interest in animals, and in wild animals in particular, is evident throughout Lopez's prolific authorship. This interest has also been the topic of several published interviews and conversations. In the autobiographical collection of essays entitled *About This Life*, Lopez in the essay "Introduction: A Voice" presents the childhood experiences of contact with the "small, wild animals" of the Californian countryside as the spark that lit the later urge to write about "what I saw, when I went outside" (10). And what Lopez saw, as his later experiences took him outside to a wide variety of landscapes at home and abroad, caused him to reflect upon two issues that still reverberate throughout several of his texts: "the psychological draw of landscape," and the "profound mystery" of wild animals ("Voice" 11). As Lopez points out, these issues were in the 1960s regarded as "peculiar territory" for a nascent writer ("Voice" 11). However, Lopez's literary breakthrough came precisely with a non-fictional book on wild animals and their relationship with human cultures. *Of Wolves and Men* was published in 1978. The following year Lopez received the John Burroughs Medal for distinguished natural history writing, the Christopher Medal for humanitarian writing, and the Pacific Northwest Bookseller's award for excellence in nonfiction. In 1980 *Of Wolves and Men* was nominated for the National Book Award (Newell 75).

Of Wolves and Men is the first of Lopez's longer works of non-fiction, and a book important in bringing the question of the animal into the consciousness of contemporary audiences. Indeed, Lopez's several (fictional as well as non-fictional) writings on animals have caused literary critic James Perrin Warren to propose that "[i]t would be instructive ... to compare Lopez's independent thinking with the emerging academic discipline of animal studies" (4). In *Of Wolves and Men*, a three-hundred-page-long reflection on the fate of the wolf and of human relationships with the wolf on the North American continent, Lopez critiques Cartesian dualism and "its reverberations in zoology today" (*Wolves* 258). Accounting for the historical circumstances leading to the killing of one to two million wolves on the American plains in the fifty years from 1850 to 1900,²⁹ Lopez finds the justification for this mass slaughter ultimately to lie in the Cartesian argument that "if an

²⁹ These are Lopez's approximations. As he comments, when amounting to these scales "[t]he numbers no longer have meaning" (*Wolves* 180).

animal has no soul – if an animal is only a machine – then our approach to forms of life other than ourselves can be irresponsible and mechanistic” (*Wolves* 258).

There are several thematic and representational similarities between *Arctic Dreams* and *Of Wolves and Men*. The first is the already mentioned criticism of the Cartesian and scientific “mechanistic approach to wildlife,” which, as Lopez puts it, traditionally has led biologists to believe that animals “can be disassembled, described, reassembled, and put back on the shelf” (*Wolves* 258). This critique of science’s mechanistic and reductionist representation of animals is also present in *Arctic Dreams*, although less insistently and directly so. In both works, however, the critique of traditional science exists in parallel with an affirmation of how new methods of science of Lopez’s own time provide new knowledge and altered perspectives on animals.

The second similarity is the way *Of Wolves and Men*, like *Arctic Dreams*, broadens the scientific understanding of animals by including perspectives from indigenous American cultures.³⁰ This speaks to Lopez’s long-term interest in anthropological research, in how “other cultures approach[] questions of natural history and geography” (Lopez “Voice” 11). The next few chapters will shed some light upon the influence of such perspectives on *Arctic Dreams*.

The third similarity I want to mention is one of form and representational technique. In *Arctic Dreams*, Lopez employs the same technique of multi-perspectival representation of the Arctic as he does with the wolf in *Of Wolves and Men*. In the latter work the different frames of perception are simply more evident than in *Arctic Dreams* because they are presented in separate parts of the text. As a summary of the first three parts, Lopez informs his readers that “I have been considering wolves from three fairly distinct viewpoints: as objects of scientific inquiry, as objects of interest to people bound up in the natural world with them, and as objects of hatred for livestock raisers” (*Wolves* 203). The latter viewpoint involves images of the wolf as a threat to economic development, and as object of the ‘sport’ of hunting. From this Lopez proceeds in the fourth and final part of the book to describe the wolf as *imagined* throughout (primarily Western) history, or, as Warren has put it, the wolf as the animal of “the aesthetic imagination” (6). By juxtaposing these different scientific, indigenous,

³⁰ These Native American and Inuit perspectives are present in *Of Wolves and Men* and *Arctic Dreams* in the form of Lopez’s own understanding and subsequent representation of them.

historical /economical, and mythical perceptions of the wolf, *Of Wolves and Men* tacitly advances the scientific to be merely one among several ways of perceiving the wolf.

In *Of Wolves of Men* Lopez openly announces that the aim of offering these several different perception of the wolf is to show the “richness of ideas associated with the animal” (*Wolves* 204). He further warns of attempts to “synthesize” these ideas and perceptions of the wolf into one totalizing perception of the “grand animal” – the essence of the wolf (Lopez *Wolves* 204). Against such universalist tendencies he argues for the importance of remaining (in a distinctly postmodern fashion) “slightly off-balance” in thinking about the wolf (Lopez *Wolves* 204). “Otherwise,” he argues, “the temptation is to think that, although what we are examining may be complex, it is in the end reducible” (Lopez *Wolves* 204). A reductive image of the animal is precisely what Lopez wishes to avoid. This wish is the primary motivation for his critique of science, in *Of Wolves and Men* as well as in *Arctic Dreams*. In *Arctic Dreams* Lopez has moved his textual focus from an animal that “exerts a powerful influence on the human imagination” (*Wolves* 4) to a geographical region that does the same. His representational form, however, remains the same: to let the complexity of our associations, of our ways of knowing the Arctic, be displayed. In the case of the Arctic (as evident in Chapter Two of this dissertation) this involves bringing forth a range of individual and cultural perspectives on the region. For arctic animals, it involves presenting these animals from perspectives other than that of mechanistic science.

Principles of anthropocentrism and the animal Other

In *Of Wolves and Men* Lopez makes the claim that “to approach [the animal] solely in terms of the Western imagination is, really, to deny the animal” (86). What kind of critique lies hidden in this claim? What is Western culture’s problem with the animal?

The Western philosophical tradition is one in which the animal is thought of in terms of a series of instinctual, non-rational responses. The soulless automaticity of the animal’s response makes it impossible for the human to enter into a moral relationship with it (Derrida *Animal* 85, 106-108; Lopez “Renegotiating” 382). Thus unlike the encounter with a human face, which philosopher Emmanuel Levinas found to produce in us a sense of responsibility for the Other, the encounter with the animal face induces no sense of ethical obligation in the human (Buell *Writing* 202). How did this insensitivity towards the animal come about?

In her book *Environmental Culture: The Ecological Crisis of Reason*, Plumwood gives an account of a system of centrist conceptual structures at work in modern Western

culture that provides some enlightening insights about the anthropocentrism that defines modern Westerners' relationship with the natural world. According to Plumwood, "[d]ominant western culture is androcentric, eurocentric and ethnocentric, as well as anthropocentric" (101). First and foremost, however, it is at present, and has historically been, "reason-centred" (Plumwood 101). In Plumwood's analysis, the very reason-centeredness of our culture is the cause of our human-centeredness. Because rationality is seen as "the exclusive, identifying feature of the human," it follows that our culture's valorization of reason leads to a focus on the human (Plumwood 98).

Based on the insight of post-colonial and feminist work on power structures, Plumwood describes how the centrisms of Western culture work according to a system of dualisms. Unlike dichotomies, Plumwood claims, dualisms set up "emphatic and distancing form[s] of separation (*hyper-separation* or dissociation) which create[] a sharp, ontological break or radical discontinuity" between the privileged and the subordinated groups, between the Same and the Other (Plumwood 101, italics mine). In Western culture such dualisms support the cultural hegemony of the Center, which allows the colonization of other regions, as well as the anthropocentrism that allows the colonization of the natural world. The system of dualisms works according to five principles: *radical exclusion*, *homogenization*, *denial/backgrounding*, *incorporation* and *instrumentalization*. As Plumwood's formulation of these principles is part of much the same critique of Western conceptualizations of the natural world that we find in *Arctic Dreams*, it may be worthwhile to briefly pause here to examine Plumwood's principles in some detail.

The principle of *radical exclusion* marks, according to Plumwood, the (cultural or natural) Other as both radically separate and inferior. It applies the idea of *hyper-separation* to "defin[e] the dominant identity against or in opposition to the subordinated identity," emphasizing their different natures (Plumwood 102). In the case of humans and animals this means that features separating the human from the animal are emphasized and presented as that which constitutes a "truly human identity," whereas features common to both are neglected (Plumwood 107). This selectiveness gives rise to associations of the human with rationality and mind, and of the animal with instinct and matter. It also allows humans to see nature as a "hyper-separate lower order lacking continuity with the human" (Plumwood 107). This effectively blocks identification with and sympathy for the animal Other in a way it does not for human Others. The *hyper-separation* of the human from nature allows the human a purely utilitarian and/or instrumental attitude towards the natural world.

The second principle with which Western culture inscribes value and focus to the Self and the Center is *homogenization*. By disregarding differences within the group defined in opposition to the Self, the Other is seen not as an individual but as “a member of a class stereotyped as interchangeable, replaceable, all alike, homogenous” (Plumwood 102). Within the system of anthropocentrism, *homogenization* works to render all animals “alike in their lack of consciousness” and reason, ignoring “the range and diversity of mindlike qualities found in nature” (Plumwood 107). Thus Plumwood places the questions of the animal that philosopher Jacques Derrida addresses, within the larger system of centrism’s perceptual power structure. In *The Animal That Therefore I Am*, Derrida presents the failure to account for the extreme heterogeneity of animal life to be one of the fundamental flaws of Western culture. Essentializing all animal creatures into the abstract category of ‘the animal,’ animals are regarded as fundamentally different from humans because they have no language, no conception of the symbolic order (of culture), and hence are believed to be caught in direct interaction with their environment in ways that humans are not (Derrida 47-50). This creates an abyss between man and ‘the animal’ that is equally deep, Derrida claims, whether the animal in question is a highly intelligent mammal – like Lopez’s polar bear – or a simple organism – like the microscopic water bear on which Lopez at one point lavishes his attention. To Derrida, this proves that the Western philosophical tradition is based on texts written by “people who have no doubt seen, observed, analyzed, reflected on the animal, but ... [whose] gaze has never intersected with that of an animal directed at them”; never felt the animal address them (13). Disavowing the address inherent in the returned animal look, Derrida argues, philosophy has “made of the animal a *theorem*, something seen and not seeing” (Derrida 14).

In describing the animal as *seen* but not *seeing* Derrida implicitly points to the monological power relationship that exists between humans and animals, and that lies implicit in Western scientific forms of knowing. Painter, poet, novelist, and critic John Berger in the essay “Why Look at Animals?” supports Derrida’s analysis by arguing that in modern Western cultures animals are always the observed. The principle of *homogenization*, Plumwood further argues, implies that animal Others under observation are “essentially simple and knowable” (Plumwood 102). As such, the human observer can come to know them “completely – and in the absence of consent” (Plumwood 42). What is more, the human observer can ‘wring’ knowledge from the animal, thereby taking power over or even changing the animal, without him/herself being changed by the animal (Plumwood 42). In this way,

modern humans' knowledge of animals becomes "an index of our power, and thus an index of what separates us from them" (Berger 267). Armed with this power, the human can conceptually reduce the animal, like we reduce other things of nature, into of a set of "interchangeable and replaceable units (... 'resources', or standing reserve)" (Plumwood 107). The ultimate result of this dualistic and monological power relationship, Plumwood claims, is "a serious underestimation of the complexity of nature" (107). It is also a lack of concern for the continued existence and wellbeing of this complexity.

The disregard of the complexity of nature is associated also with the third principle of centrism: *denial* (and/or *backgrounding*). *Denial* or *backgrounding* involves the presentation of the radically separate and inferior group as inessential, thereby hiding the Center's dependency upon this group (Plumwood 104). In anthropocentrism this is the principle through which nature becomes the mere background to modern technocratic society, and through which our society's dependency upon nature is denied. Once we see ourselves as independent of nature, Plumwood argues, "nature's order, resistance and survival requirements are not perceived as imposing a limit on human goals and enterprises" (108).

Plumwood makes an interesting point in *Environmental Culture* of how denial is associated with "a perceptual politics of what is worth noticing, of what can be acknowledged, foregrounded and rewarded as 'achievement' and what is relegated to the background" (104). To Jacques Rancière, a perceptual politics of this kind would constitute a form of aesthetics (12-13). In the context of a natural environment like the Arctic, such politics involve the question of whether or not the actions of animals can be acknowledged as achievements. For ethnographers in the nineteenth century the question seems to have been whether or not the work of the Inuit on the land could be acknowledged as culture-specific achievements, or should be interpreted as part of the background of the natural environment.

The last two principles of centrism identified by Plumwood are *incorporation* and *instrumentalism*. In anthropocentrism these two principles are intricately linked. *Incorporation* is based on the idea of the deficiency of the Other, which invites the Same to "control, contain, and otherwise govern ... the Other" (Said 48; cf. Plumwood 105). We have already seen how animals are defined in terms of *lack* of qualities such as consciousness and rationality defining the human. This, Plumwood argues, leads us to

not consider those positive capacities many animals have that we lack, such as remarkable navigational capacities and ultraviolet perception. Differences are judged as grounds of inferiority, not as welcome and intriguing signs of diversity. The

intricate order of nature is perceived as disorder, as unreason, to be replaced where possible by human order in development, an assimilating project of colonialism. (109)

Aiming for the representation of the animal in all its richness of being, in all its wealth of association, and as part of an Arctic figured in terms of a cultural and natural diversity, Lopez refuses this inscription of inferiority. Instead *Arctic Dreams* offers descriptions precisely of some of the remarkable perceptual and navigational capacities of arctic animals, and hence of these animals' astounding *difference*. In line with literary Romantics of the earlier century Lopez also makes several allusions to an idealized 'order of nature.' Through these literary techniques he seeks to counter the continued exploitation of arctic natural environments that *instrumentalism* serves to justify.

Instrumentalism is "a special case of incorporation" that occurs in cases in which the independent agency and value of the Other is either "downgraded" or "denied" (Plumwood 105). Others, be they human or animal, are ascribed no independent ends, no "social organization" and no "cultural meanings" of their own (Plumwood 105). This is what makes it necessary for the colonizers to impose their own "value, agency and meaning" onto these Others and their spaces (Plumwood 105, 106). Significantly, with this denial of agency follows the relaxation or abolishment of limits to intrusion (Plumwood 105). In the case of anthropocentrism it is, of course, the agency, independence, and social organization of nature that is denied, and nature that seems to offer no boundaries to human intrusion.

Such an instrumental attitude towards the natural world is precisely the one expressed by the crew of the *Cumbrian*, whose feelings of wealth are associated with an abundance of *dead* animals – with animal parts translated into products of pecuniary worth in modern consumer society. And it is the attitude that makes it possible for Scoresby to merely marvel at the *speed* of harpooned bowhead whales that, "when struck," dive "with such velocity" that they break their "jaw-bones, and some-times crown-bone, by the blow struck against the bottom" (Scoresby 468). Scoresby's disassociated and objective account of such events exemplify Plumwood's point about how

[i]nstrumental outlooks distort our sensitivity to and knowledge of nature, blocking humility, wonder and openness in approaching the more-than-human, and producing narrow types of understanding and classification that reduce nature to raw materials for human projects (Plumwood 109)

Lopez, telling his reader more than a century later of a similar incident aboard the whaler *Truelove*, marvels not at the animal's speed of descent but at what unimaginable sense of pain could lead it to such a desperate action (Lopez *AD* 4). As discussions in this and following chapters will reveal, this shift towards empathy for the animal is the result of the text's combination of new forms of knowledge and literary techniques in the attempt to rework or overcome the principles of anthropocentrism.

The Romantics' claim that the facts of nature are "barren" until coupled with human history (Emerson *Nature* 13) may be interpreted as an artistic expression of the kind of anthropocentric and instrumental view of nature that Plumwood critiques in *Environmental Culture*. Thus despite their idealization of nature, Romantics like Emerson gave nature a conceptual status that left it entirely dependent on the human. The inability of literary Romantics to break free from a distinctly Western dualistic mindset is at least partly responsible for the failure of the environmental project of Romanticism, and the reason for the recent critique of Romantic aesthetics. In the context of our analysis of *Arctic Dreams* this inability may also explain why Lopez supplements the Western Romantic worldview with a worldview inspired by Inuit cultures.

Searching for a viable natural philosophy

In *Arctic Dreams* Lopez identifies the "irrevocabl[e]" separation from the world of animals to constitute a "fundamental difference between our culture and Eskimo culture" (*AD* 200). Whereas this separation allows modern Western culture to "manipulate" and *instrumentalize* animals in the name of human progress, Lopez reports that "Eskimos do not grasp this separation easily, and have difficulty imagining themselves entirely removed from the world of animals" (*AD* 200). On the basis of these observations, Lopez in his essay "The Passing Wisdom of Birds" (1985) expresses his belief that a contemporary search for a "viable natural philosophy, one that places us again within the elements of our natural history" must proceed through philosophical and scientific investigations of wild animals ("Wisdom" 199). Two sources are posited as vital to this project: the "long-term [continuous] field observations of non-Western cultural traditions" and modern field biology (Lopez "Wisdom" 201).

The establishment of a new and more viable natural philosophy is of particular importance for the Arctic. As Lopez testifies, arctic ecosystems are not only young in terms of evolutionary history, but also "stressed", "accident-prone," and "inherently vulnerable" (*AD*

32-33). Life here is on the brink of existence, and animals, as we have already seen, have to adapt their lives to “violent, but natural, fluctuations” in climate and food supply (*AD* 25). As indicated in Lopez’s depiction of the whaling industry in the “Prologue” of *Arctic Dreams*, the Arctic has been and continues to be under the threat of economic exploitation. This is the reason why Lopez, as expressed in the opening chapter “Arktikós,” in the Arctic oftentimes finds himself brooding on “the threads of evolution” and his own “capacity to annihilate life here” (*AD* 37). As a representative of modern mankind, which at present “can circumvent evolutionary law” through large-scale disruption of animal environments and consequent species extinction (*AD* 38), Lopez “must learn restraint ... must derive some other, wiser way of behaving toward the land ... must be more attentive to the biological imperatives of the system of sun-driven protoplasm upon which he, too, is still dependent” (*AD* 39). The philosophical project of *Arctic Dreams* is in this way expressed to be humanity’s conscious realignment with the natural world and its biological imperatives. Significantly, Lopez highlights an awareness of the biological interconnectedness of the human with the rest of the natural world as a foundation from which a more ethical involvement with the land may develop. Accordingly, his search for a new and more viable natural philosophy can be seen as an early expression of what is today a broader and more theoretically developed pursuit of an environmental turn in Western culture, exemplified in the work of a range of ecocritics and ecophilosophers, among whom we find Plumwood.

In *Arctic Dreams* the point of departure for the process of human reincorporation with the natural world is the animal. Lopez in this text explores new lines of thinking that allow scientific knowledge to become part of a new and distinctly “modern realignment with animals” (*AD* 53). This realigned relationship should be one *not* based on exploitation and control, and one in which considerations of animals and their well-being are not always secondary to the aim of human progress.

Seemingly mysteriously present in the harsh landscapes of the Arctic, animals (mammals in particular) are both socially and biologically closer to humans than other life forms. In the introductory chapter “Arktikós”, Lopez asserts that

something eerie ties us to the world of animals. Sometimes the animals pull you backward into it. You share hunger and fear with them like salt in blood. ...

Few things provoke like the presence of wild animals. They pull at us like tidal currents with questions of volition, of ethical involvement, of ancestry. (*AD* 37)

Lopez here evokes a sense of kinship between humans and (wild) animals that he argues is no longer recognized in modern Western culture. The banishment of animals from our immediate surroundings has been paralleled by their banishment from our imaginations (Lopez "Renegotiating" 383). The result of this is that our relationships with animals no longer take the earlier form of "contractual – principled agreements, established and maintained in a spirit of reciprocity" (Lopez "Renegotiating" 381). These old agreements, Lopez argues, we simply "tore up" once animals "got in the way of our agriculture, our husbandry, and our science" ("Renegotiating" 388). Because we are no longer in daily contact with them, Lopez finds that our notions of animals and animal life have become not only "highly intellectualized", but also "bookish [and] stagnant, for, once discovered, we do not permit them to evolve as cultures. We allow them very little grace, enterprise, or individual variation" (Lopez "Renegotiating" 383). However, in encounters with animals in the wild, Lopez implies, old questions of animal agency, of human kinship with and ethical obligations towards animals reemerge.

In "Renegotiating the Contracts," Lopez makes the point that although we "[i]n our age ... prefer analysis, not awe; historically, human beings have subsisted as much on the mystery and awe inspired by animals as they have on the actual flesh of the caribou or the salmon" ("Renegotiating" 384). Without retaining a sense of awe and a feeling that the world of animals still has relevance in relation to ours, he believes, our understanding of ourselves as human beings and of our relationship with other members of our shared environment becomes impoverished. Modern society's double banishment of animals, which paradoxically has led both to their industrial exploitation *and* to the establishment of animal rights and animal welfare legislation (Eder 147), in this sense contributes to the more fundamental feeling of alienation with which modernity has been associated. Connecting, as did Plumwood later, our disconnected and instrumental relationship with animals with a cultural lack of regard "for the other sex, other cultures, other universes," Lopez in "Renegotiating the Contracts" explicitly states his hope that Western culture will eventually "rise above prejudice to a position of respectful regard toward everything that is different from ourselves" (383). This kind of hope pervades much of Lopez's writing, and is an expressed goal of Lopez's work as a writer (Lopez "Voice" 14).

In both in *Arctic Dreams* and "Renegotiating the Contracts" Lopez advances indigenous hunter cultures as contemporary representatives of humanity maintaining a more original and less distanced form of relationship with the natural world. In hunting, Inuit have

sought to understand the behavior of animals, and have preserved the knowledge gained about them in their “oral literatures” (Lopez "Renegotiating" 384). Unlike us, Lopez claims, Inuit peoples have not banished animals from their minds, and are able to make room in their adult life for the sense of mystery and awe that animals engender (Lopez "Renegotiating" 384). We may thus note that although Lopez’s wish to overcome a distinctly modern Western sense of alienation from the natural world may be interpreted as proof of his Romantic inclinations, in both *Arctic Dreams* and “Renegotiating the Contracts” Lopez sees the possible fulfillment of this wish to lie within a worldview posited as an alternative to the modern Western one (which comprises the Romantic literary tradition). Whereas Lopez charges contemporary Western culture with “failure of imagination” in meetings with animal Others ("Renegotiating" 384), he finds recourse not in the Romantic imagination, but in the Inuit’s non-reductive and social conception of animals.

A distinctly modern and reflective text, *Arctic Dreams* attempts to regain insights into ‘ancestral’ complex animal conceptualizations and ethics while consciously avoiding an uncritical return to primitivism. As Lopez asserts: “The hunting contracts of our ancestors are no longer appropriate, just as their insight into natural history is no longer superior to our own at every point” ("Renegotiating" 387). Similarly, the indigenous hunter, whose attitudes of respect and acknowledgement of mystery in relation to the animal Lopez valorizes, is in *Arctic Dreams* placed within a textual framework that affirms *both* our own culture’s history of imagining animals *and* the value of scientific knowledge about animals. While examples of the former are offered and explained (like medieval Europeans’ inability to distinguish the tusk of the narwhal from the horn of the unicorn), the text posits insights about animals from modern field biology and *Umweltlehre*, as well as from present-day indigenous hunters, as corrective ‘antidotes’ to these antiquated animal depictions (*AD* 129). In this manner *Arctic Dreams* establishes a “wider-than-Western, wider-than-purely-scientific, more-than-utilitarian view of animals” as the foundation for Lopez’s new natural philosophy ("Renegotiating" 387).

Field biology and *Umweltlehre*: Modes of perception for a new philosophy

Field biology

In *Arctic Dreams* the most fundamental insights about animals and their lives result from observations of animals ‘in the field’. Only through paying close attention to the behavior of the polar bear, for instance, is it possible to see him as “ice bear” hunting the margins of the ice and the shoreline; “sea bear” “div[ing] to the ocean floor for mussels and kelp” and “tread[ing] water amid schooling fish”; and ‘inland bear’ “feast[ing] on crowberries and blueberries” (*AD* 79). When faced with such a resourceful animal, Lopez indicates, it becomes vital to be *at the place of action* in critical situations. Necessary in order to obtain a comprehensive understanding of the animal’s biology and behavior are both a trained eye and the ability to perform long-term and continuous observations of the animal. Because biological field studies generally cover a broad range of (unmanipulated) animal behavior, they are less prone to yield misconceptions than other lab and experimental research on animals. Field biology can further be claimed to work in opposition to previous scientific *and* general cultural tendencies to regard relationships between animals primarily in terms of “the way they serve each other as food” within schematized and reductive scientific food chain models (*AD* 71). New understanding of the complex ways in which animals relate to their environment also tends to generate a more comprehensive interpretation of animal agency.

Due to their long-term and intimate relationship with arctic animals, Lopez takes the Inuit to be “highly reliable observers of animal behavior” (Nelson, qtd. in *AD* 94). The knowledge they possess about the wild animals of their local environment is a practical form of knowledge based not on distanced observations but on “thousands of encounters” and “many small pieces of interlocking detail” (Lopez *Wolves* 83). In contrast, the work of Western field biologists is often restricted to time-limited schedules and dependent on the support of technological equipment and transportation. For the wolves of Alaska, Lopez presents a mathematical calculation showing that what field biologists record is a mere “three one-thousandths of 1 percent of wolf behavior” (*Wolves* 3). Implying the unsoundness of regarding as anything but “good guesses” deductions made about an animal on the basis of such a limited pool of available data, Lopez in *Of Wolves and Men* makes two points about the limits to our scientific visions of animals. The first is that in “truth ... we know little about the wolf” (Lopez *Wolves* 3). Even of the animal aspects chosen for study, we see only a part. Accordingly, Lopez’s second point is “how incomplete is our sense of worlds outside our

own” (*Wolves* 3). In the Arctic, harsh climatic conditions and the fact that several of the largest mammals spend the majority of their lives in marine ice-covered environments contribute to these practical limitations to what can be known about these animals and their worlds.

In both *Arctic Dreams* and *Of Wolves and Men*, Lopez praises the Inuit for the way their practical form of knowledge remains open to things an animal might do that humans might never observe. He further commends the way they speak less of rules of animal behavior than of “exceptions to the rules, of the *likelihood* of something happening in a particular situation” (*Wolves* 82). The Inuit’s reluctance to generalize observations of individual animals into species-characteristic behavioral patterns is to Lopez expressive both of their sensitivity to context and their sensitivity to the animal as an individual. The result is, according to Lopez, a view of the animal more reliable because more soundly supported by contextualized observations and more sensitive to it as a “variable creature” (*Wolves* 83). In *Of Wolves and Men*, for instance, the wolf might behave the way he does “because he is a certain age, or because it is a warm day, or because he is hungry” (Lopez *Wolves* 83). In *Arctic Dreams* this reluctance to reduce the animal is what sets Inuit apart from Western field biologists, whose statistical analysis of relatively short-term and fragmented field observations diminish actual animal lives to numbers in an abstract system prone to manipulation (*AD* footnote p. 269).

Statistical analyses tend to mask or render insignificant unexpected or rare events that could be the source of vital insights into individual animal behavior and resourcefulness. According to Lopez, such insights have the potential to shatter the image of the species as a unified entity, and to allow for an emerging understanding of it as a heterogeneous collection of individuals. One-time behavioral observations, he argues in *Arctic Dreams*, should also be recognized as important expressions of “the range of capability in the species” (*AD* 96). With awareness of this range of capability within one single species comes awareness of the fact that “[n]o matter how long you watch, you will not see all [the animal] can do” (*AD* 96). Unlike the approach of Western biologists, whose ultimate aim is absolute knowledge of the animal, Lopez in both *Arctic Dreams* and *Of Wolves and Men* promotes the idea that animals are capable of accomplishments human observations will never capture. Whereas in *Of Wolves and Men* Lopez expresses his approval of the Nunamiut’s awareness and acceptance of the fact that that some things about animals must inevitably remain unknown to humans

(80), in *Arctic Dreams* Lopez's own representations of arctic animals consciously inscribes a sense of their mystery.

The most fundamental flaw of science is to Lopez the reductionism involved in processes of selection and generalization. In both *Arctic Dreams* and *Of Wolves and Men* he launches a critique reminiscent of Buffon's about the selection of certain (interesting or notable) aspects of the subject under study at the expense of other, perhaps equally or even more significant ones. As he bluntly puts it in *Of Wolves and Men*, "the wolf simply goes about his business; and men select only those (few) things the wolf does that interest them to pay attention to" (79). Chances that what matters for the human scientist – what fits his/her concepts and models of the natural world – accords with what matters in the life of the animal are, of course, fairly slim. As in the case of the narwhal, what matters in the life of the animal may lie beyond the reach of both human perception and comprehension.

Our knowledge of animals is incomplete also because of our tendency to keep scientific studies focused on one species only, or on one species at a time. This causes scientists to miss a sense of the "community of creatures" that exist in the natural world (Lopez *Wolves* 63). As exemplified in the texts and lectures of Thoreau, nature writers frequently seek this sense of community. In *Of Wolves and Men*, Lopez employs the recent findings of wolf biologists to portray the wolf as a social animal that enjoys the company of fellow wolves as well as of the other creatures of its forest habitat. He further presents wolf packs as "social organization[s that] have evolved a system of communication and communal interaction which stabilizes these social relationships" (*Wolves* 18).³¹ Similar affirmations of the social nature of animal groups are present in the representations of muskoxen and snow geese in *Arctic Dreams*.

In *Of Wolves and Men*, Lopez mentions as "one of the oddities of our age" that "much of what Eskimos know about wolves – and speak about clearly in English, in twentieth-century terms – wildlife biologists are still intent on discovering" (78). Modern Western science, in other words, does not easily accept and translate information from other

³¹ Lopez's descriptions of life in the wolf pack diverge from other scientific descriptions of wolf packs, which present packs as entities led by a male (alpha) hunter in which "'lieutenant wolves' are 'dispatched' to 'patrol' the territory, and parents 'instill discipline' in the pups" (Lopez *Wolves* 32). This kind of description, Lopez argues, reveals less about the actual social dynamics of the wolf pack than it does about human perceptions of social hierarchies, gender roles and property rights. It further discloses how such perceptions influence the way we think about and represent animals – even within the supposedly objective sciences.

knowledge systems. Like Thoreau, Lopez here launches a critique of the epistemological boundaries of science. Whereas Thoreau, in “The Succession of Forest Trees,” argued that humans should learn good forest management practices from the *animal* denizens of the Concord forests, Lopez here suggests that we learn about arctic animals from culturally *Other human* denizens of the Arctic. In *Arctic Dreams*, the suggestion is that we learn from the indigenous peoples of the Arctic how to overcome the chasm our own culture has constructed between the human and the natural world. Whereas the inclusion of Inuit knowledge about animals would potentially lead scientists toward a recognition that, in the fullness of their being, animals exceed scientific description, Lopez’s main argument for including this knowledge in *Of Wolves and Men* as well as in *Arctic Dreams* is the Inuit’s superiority when it comes to hours of observation and awareness of environmental complexities. It is thus on the basis of empirical observations, which Barrett has identified as “the most frequently acknowledged overlap between I[ndigenous] K[nowledges] and modern Western knowledges” (180), that Lopez asks his readers to accept a loosening of the boundaries to what constitutes knowledge that makes possible the inclusion of indigenous perceptions of animals. Unlike in the earlier *Of Wolves and Men*, Lopez in *Arctic Dreams* further presents his suggestions as to *how* we might think these two forms of knowledge together.

Umweltlehre

Because it remains sensitive to environmental contexts and complexities, and to the individuality of animals, Lopez presents the Inuit hunter’s method of observation as an ideal that modern Western science should try to emulate:

The discovery of an animal’s *Umwelt* and its elucidation require great patience and experimental ingenuity, a free exchange of information among different observers, hours of direct observation, and a reluctance to summarize the animal. This, in my experience, is the Eskimo hunter’s methodology. Under ideal circumstances it can also be the methodology of Western science. (*AD* 268)

Inuit ‘methodology’ is here presented as ideal because it involves patient and long-term observations of animals in their natural habitat coupled with a free flow of information among its many observers. This uninhibited exchange of knowledge seems in Lopez’s text a goal in itself, as he openly criticizes the manner in which vocational field biologists at times find their work hindered, shaped, or reinterpreted by internal formal analytical frameworks and external political motivations. However, even more important to Lopez’s philosophical project is the manner in which the native hunter’s ‘methodology’ implies a tacit

acknowledgement of the observed and potential skills of the individual animal. By announcing the discovery of animal *Umwelten* to be the aim of this ideal science, *Arctic Dreams* ascribes value to arctic animal subjects, and posits *their* appropriations of the arctic natural environment as parallels and possible counterpoints to human subjects' various attempts at appropriation of the same.

As mentioned in the introduction, the term *Umwelt* refers to what Lopez calls the animal's "self-world" (*AD* 268), or more precisely, to its perceptual lifeworld (Sagan 2). It is a key concept in *Umweltlehre*; a new biological field pioneered by Jakob von Uexküll in the first half of the twentieth century. With *Umweltlehre* Uexküll sought to move away from the mechanistic perspective that governed the fields of physiology and behaviorism of his day and focus attention on the animal as living subject (Pobojewska 323; Ginn 130). The opposition to the established science of physiology is highlighted in *A Foray into the World of Animals and Humans*, in which Uexküll states that:

For the physiologist, every living thing is an object that is located in his human world. He investigates the organs of living things and the way they work together just as a technician would examine an unfamiliar machine. The biologist, on the other hand, takes into account that each and every living thing is a subject that lives in its own world, of which it is the center. It cannot, therefore, be compared to a machine, only to the machine operator who guides the machine. (*Foray* 45)

Uexküll denies science's general depiction of animals as objects whose bodies should be understood as mere machinery, arguing that 'machine operator processes' are present at all structural levels in the biological organism (*Foray* 46). Because they also "perceive and act," every living being should be considered a subject (Pobojewska 325). Accordingly, biology should seek to understand "the peculiarities of *the organism as an entity*" fully emerged and perfectly attuned to its environment; its *Umwelt* (Pobojewska 323).

As pointed out by Aldona Pobojewska, *Umweltlehre* takes as its starting point Kant's epistemological thesis, by which "*reality is a phenomenon*" (324). This phenomenological line of thinking is radical in the sense that it installs the subject as the basis for all experience. In "An introduction to *Umwelt*," Uexküll describes the make-up of the body to be crucial to the way in which the subject relates to the world: "Outward from the body, the senses of touch, smell, hearing and sight enfold man like four envelopes of an increasingly sheer garment. This island of the senses, that wraps every man like a garment, we call his *Umwelt*" (107). Whereas this example takes the human as its starting point, it follows that for any living subject, the constitution of its *Umwelt* depends upon the sensory organs with which the

subject is equipped, and through which the world is perceived. By including animal subjects and taking the role of the body into account, *Umweltlehre* expands Kant's originally human-centered epistemological thesis to cover the entire biological field (Pobojewska 324-25). Where mechanistic science describes how the animal responds automatically to passively received sensory stimuli, *Umweltlehre* describes the animal subject as involved in processes of embodied perception through which it actively and according to its own interest relates to its environment. In this process, the 'facts' or 'things' of the environment become interpreted as signs in a network of semiotic relations that together constitute the animal's *Umwelt*. All objects become objects of experience within the animal subject's network of relationships, and part of its subjective lifeworld.

Uexküll uses the metaphor of a bubble surrounding each animal in order to clarify how *Umweltlehre* changes the view of nature. "The bubble represents each animal's environment and contains all the features accessible to the subject. As soon as we enter into one such bubble, the previous surroundings ... are completely reconfigured" according to the perceptions and relationships that constitute the lifeworld of the animal subject (Uexküll *Foray* 43). In this sense, the animal's lifeworld, or 'bubble,' can be interpreted as yet another form of perceptual frame, species-specific and, as Deely puts it, "consequent upon biological constitution" (133). And despite the fact that Uexküll himself asserts that humans have a special capacity for detaching themselves from this *Umwelt* space (a capacity which causes Deely to suggest the term "*Lebenswelt*" rather than *Umwelt* for humans [Deely 133]), knowledge of the *Umwelt* of other animal subjects remains an impossible goal. In this manner, the limits to objective science are exposed, and physiology's attempt to gain knowledge of animals on the basis on the construction of their bodily parts fails. Only by studying the behavior of animals in their natural environment can insights regarding animals' *Umwelten*, and therefore a truer knowledge of animal subjects, be gained. The methodology of the new *Umweltlehre* must therefore be to start "from the whole"; with an analysis of the animal subjects' behavior within their natural habitat (Pobojewska 328). In this sense *Umweltlehre* expresses Lopez's conviction that "to try to understand the animal apart from its background, except as an imaginative exercise, is to risk the collapse of both. To be what they are they require each other" (*AD* 177).

Uexküll himself defined his *Umweltlehre* in opposition to ecology on the charge that ecology, like the other biological sciences, presents the natural world "as it offers itself to the human eye" (*Foray* 200). While ecology's concept of the niche accepts the premise that the

physical world represents the neutral basis of existence for all organisms and can be objectively described by science, the concept of *Umwelt* “shows us how a given ‘environmental niche’ is merely the physical part of a larger, objective, not purely physical whole which is, as it were, fully comprehensible only from the perspective of the particular lifeform whose world it is” (Deely 129-30). Accordingly, Uexküll’s new biology requires researchers to shift their perspective away from what is significant for *them* to what is significant to the animal under study (Winthrop-Young 231). This shift in perspective radically alters the boundaries to what may be seen – or rather – what it is possible to *imagine* may be seen.

The concept of *Umwelt* seems to offer Lopez an alternative, yet still scientific way of thinking about and presenting animals. But what indications do we find in *Arctic Dreams* that the concept of *Umwelt* has influenced Lopez’s representation of arctic animals? And in what way does his evocation of animal *Umwelten* function in the text?

Lopez’s animal aesthetics I: the narwhal

Lopez opens *Of Wolves and Men* by presenting the wolf through a perspective that moves imperceptibly from that of the omniscient narrator of the scientific account to that of the wolf itself. In this manner Lopez manages to evoke a sense of the lifeworld of the wolf. Unlike *Of Wolves and Men*, *Arctic Dreams* is a kind of travel narrative. Because Lopez, the narrator, functions as our guide through the text’s (non-linear and non-continuous) journey through the Arctic, this gives less room for cross-species perspectival shifts of the kind made in *Of Wolves and Men*. Accordingly, Lopez must in *Arctic Dreams* apply other literary techniques to create a sense of the animal perspective. In my view, his evocation of animal lifeworlds, or *Umwelten*, represents one such technique. The presentation of the narwhal in *Arctic Dreams* provides an example of how Lopez evokes a sense of an animal’s *Umwelt*. It also exemplifies how the evocation of the animal’s *Umwelt* has the advantage of not forcing the narrator to presume to see through the eyes of a radically different animal Other, thereby forestalling yet another (unintended) instance of human abuse against the animal.

As evident in Scoresby’s identification of “MONODON *Monoceros* ... *Narwal*, or *Unicorn* of the Whalers,” the narwhal is an animal that historically has greatly engaged the Western imagination (Scoresby 486). Due partly to its mysterious presence at the edges of the known world, partly to the myths and superstitions associated with its tusk (which in the

middle ages rendered this item immensely valuable), the narwhal is an animal of which we know little but have imagined much.³² Whereas Lopez in *Arctic Dreams* also accounts for the imagined animal and its involvement in early networks of trade in arctic objects, his chapter on the narwhal begins at the edge of the sea ice, watching for a glimpse of the real animal in its natural environment. In proceeding to give a scientific description of the narwhal, Lopez makes a point of the fact that because it is a pelagic species that spends the entire year in the polar ice, even modern “[s]cientists can speak with precision only about the physical animal, not [its] ecology or behavior” (*AD* 130). Accordingly, his own long account of what *is* known about this animal begins with a traditional description of its physical characteristics.

Lopez’s physiological descriptions of the narwhal not only offer references to some of Scoresby’s representations of this animal, but also incorporate parts of these. Scoresby opens his presentation of the narwhal with some comments on previous taxonomic errors made about this little known marine mammal, before proceeding to account for its general size and shape:

The form of the head, with the part of the body before the fins, is paraboloidal, of the middle of the body nearly cylindrical, of the hinder part, to within two or three feet of tail somewhat conical, and from thence a ridge commencing, both at the back and belly, the section becomes first an ellipse, and then a rhombus at the junction of the tail. At the distance of 12 or 14 inches from the tail, the perpendicular diameter is about 12 inches, the transverse diameter about 7.... (Scoresby 486-487)

Note with how much method Scoresby here gives a unidirectional representation of the body of the narwhal, in which each part is identified and defined by way of its geometrical shape. Supplementary measurements are given to give the reader a sense of the size of the different parts of the animal. Together these two forms of information allow the mathematical calculation of the animal’s bulk and volume, and make an abstract remodeling possible. The representation is given in the neutral language of the scientist, who offers his descriptions from an omniscient, non-identifiable position in relation to the animal. From this presentation of the shape of the narwhal, Scoresby proceeds to present its color patterns.

Unlike Scoresby’s, Lopez’s physiological descriptions of the narwhal is placed in the middle of his broader cultural, scientific, and phenomenological investigations of this animal. The description begins by offering the general size and physical features through which the

³² This, we have seen, is a quality the narwhal shares with the wolf.

different sexes may be distinguished. As the animal's further traits are described, we find the narrator moving around the animal, observing it as if it were a taxidermic museum specimen. The reader is given information about how, "[f]rom the side ... the narwhal's head seems small and blunt" (*AD* 130). "Seen from above, [the tail flukes] appear heart-shaped, like a ginkgo leaf" (*AD* 130-31), and "[v]iewed from the front, the head seems somewhat squarish and asymmetrical, and oddly small against the deep chest" (*AD* 131). The seeming camera-like and objective description Lopez here offers of the narwhal turns out, upon inspection, to be both positioned and subjective. As we follow the narrator's movements around the animal, there is no doubt that it is *his* perspective of the animal we are presented. His descriptions, furthermore, are both un-authoritative and personal. The head "seems" to him to have an appearance "somewhat" resembling geometrical shapes, but also somehow to be "asymmetrical." He further offers his personal commentary on the odd smallness of the narwhal's head, compared to the rest of its body. In this sense, even this most objective of Lopez's descriptions of the narwhal lacks the privileged perspective of science.

Like Thoreau, Lopez brings to his description of the object under study his own free associations to forms of other *living* things – like hearts and ginkgo leaves. Such associations, of course, do not belong in the strictly objective descriptions of science. In Lopez's text they serve to associate the animal body not with the abstractions of geometry, but with the aesthetically beautiful and the living. We should note, however, that in thus subtly refusing mathematics as the foundation of true knowledge about living beings, Lopez's aesthetic association of forms connects living beings without subjecting them to some Romantic idea of an underlying and unifying principle of design.³³

Like Scoresby's, Lopez's account of the narwhal moves from descriptions of its physical shape to descriptions of its color patterns. In the middle of his account of the characteristic color patterns of narwhals of different age and sex, however, the description suddenly changes. First to the tactile, then to the dynamic and contextualized:

The marbled quality of the skin, which feels like smooth, oiled stone, is mesmerizing. On the flukes especially, where curvilinear streaks of dark gray overlap whitish-gray tones, the effect could not be more painterly. Elsewhere on the

³³ My implication that Lopez has actively chosen *not* to associate the narwhal's body with geometry has its basis in the observation that Lopez quotes passages from Scoresby's descriptions of this animal, and therefore must have both read and made a selection of what parts of these descriptions to use in his own text, and what parts to leave out.

body, spots dominate. ‘These spots,’ writes William Scoresby, ‘are of a roundish or oblong form: on the back, where they seldom exceed two inches in diameter, they are the darkest and most crowded together, yet with intervals of pure white among them. On the side the spots are fainter, smaller, and more open. On the belly, they become extremely faint and few, and in considerable surfaces are not to be seen.’ These patterns completely penetrate the skin, which is a half-inch thick.

In the water, depending on sunlight and the color of the water itself, narwhals, according to British whaling historian Basil Lubbock, take on ‘many hues, from deep sea green to even an intense lake [blue] colour.’ (*AD* 131)

The moment the narrator touches the animal there is an affective response that colors the rest of the description, turning the scientific listing of traits into a more aesthetic rendering of the animal’s color patterns. This aesthetic understanding occurs as the visual perception of the animal merges with the haptic in a moment of lyrical description that evokes Lopez’s emotional response. Although it remains factual and focused on the narwhal as object, the description is poetic both in communicating a sense of intimacy with the animal uncommon in scientific modes of representation, and in evoking a sense of the visual beauty – or ‘painterly’ qualities – of the whale.

In the passage above, Lopez’s own account of the color patterns of the narwhal yields to Scoresby’s description of the same. In quoting Scoresby, Lopez at one and the same time honors the scientific work made by arctic explorers in the nineteenth century and displays his knowledge of this culturally authoritative text. Scoresby’s description is a valuable source to Lopez because it results (primarily) from Scoresby’s own observations of the narwhal in the Greenland Sea, thus representing a regionally contextualized eyewitness account. It furthermore proves how scientific descriptions may be sensitive to varieties in the expression of the visual characteristics of the objects under study, and in this manner possess aesthetic qualities. However, because Scoresby does not provide a representation of the narwhal as situated within the context of its natural environment, Lopez finally turns to Basil Lubbock for a more authoritative portrayal. Only a description of the animal in its natural habitat, he thereby implies, can fully express the variety and beauty of its color patterns; only in arctic waters does the narwhal reveal its true colors and become an aesthetic presence.

The movement in the depiction of the narwhal, from scientifically objectified taxidermic specimen to aesthetic and beautiful living creature of the seas, can be read as Lopez’s response to Chilean poet and essayist Pablo Neruda’s call for literature to “take animals regularly from the shelves where we have stored them, like charms or the most intricate of watches, and to bring them to life” (*AD* 129). The bringing to life occurs when the

eye's objectifying image of the animal becomes broadened – both through the inclusion of (spatial and textual) multi-perspectival visions of the narwhal, and through other sense experiences of it. In *Arctic Dreams* the latter preferably takes place in the wild. Indeed the entire *Monodon monoceros* chapter, and hence our reader experience of this animal, opens with Lopez's experience of suddenly hearing the sound of narwhals breathing and catching sight of the "warm mist" this produces "against the soft horizon" on the ice edge in Lancaster Sound (*AD* 125). Similarly, in a more 'bookish' part of the chapter, the confused cultural history of the narwhal turned unicorn is counteracted *and* made concrete through Lopez's account of what it feels like to hold the contested item, the narwhal's tusk, in your hands (*AD* 143).

Arctic Dreams in its entirety leaves little doubt that nothing produces more life-like descriptions of animals than actually encountering them in the wild. The importance of the connection between animals and the environment in which they are at home is highlighted in the chapter headings introducing two of *Arctic Dreams*' three large mammal chapters; 'Banks Island: *Ovibos moschatus*' and 'Lancaster Sound: *Monodon monoceros*.' Most of the many animal depictions Lopez offers are also the result of direct encounters in the wild.

In the shifting movement between the descriptive and the reflective – more poetic – mood, animals time and again serve as focus points that bring Lopez's attention back to the concrete reality of the land. His reflections upon the enormous scales of animal migrations in the Arctic, for instance, is interrupted as the "eye, drawn far out to pale hues on the horizon, comes back smartly to the black water, where, *plunk*, a guillemot disappears in a dive" (*AD* 121). The interruption is not without significance. Lopez wishes to signal to his readers that even at the ice margins of Lancaster Sound, summer home of "[t]hree million colonial seabirds ... 30 percent of the Belukha whale population of North America, and more than three-quarters of the world's population of narwhals," he is less concerned with the abstract knowledge of these incredible numbers than with "what is immediate to [his] senses" (*AD* 122). This assertion highlights the importance of the phenomenological experience of animals to his ecological vision of the Arctic. Animals "give the landscape an immediate, vivid dimension" and elicit instant, unmediated response (*AD* 121). Such an unmediated response is in the text understood to be the closest to a 'primary engagement' with the arctic natural environment a modern person like Lopez may come, whose subsistence does not directly depend upon it.

Lopez attempts to give the reader get a sense of such a direct and unmediated response to the animal by bringing us into an imagined shared experience of watching narwhals in the Arctic waters off Baffin Island:

If you were to stand at the edge of a sea cliff on the north coast of Borden Peninsula, Baffin Island, you could watch narwhals migrating past more or less continuously for several weeks in the twenty-four-hour light of June. You would be struck by their agility and swiftness, by the synchronicity of their movements as they swam and dived in unison, and by a quality of alert composure in them, of capability in the face of whatever might happen. Their attractiveness lies partly with their strong, graceful movements in three dimensions, like gliding birds on an airless day. An impressive form of their synchronous behavior is their ability to deep-dive in groups. ... Watching from high above, one is also struck by the social interactions of narwhals, which are extensive and appear to be well organized ... (AD 134-35)

No doubt on the basis of his own experiences, Lopez here informs his readers of what is striking in watching narwhals in the wild: their evasive yet continuous presence implying their formidable numbers, and the sense that these are social and capable creatures. First and foremost, however, the passage is striking for the aesthetic qualities it ascribes to these animals. The effect of Lopez's description is to evoke an emotional response in the reader that enables him/her to relate to – or even share – the narrator's feelings of "expansiveness [and] deep exhilaration" caused by *his* actual presence at the scene described (AD 135). These feelings are ascribed not to the narrative I, but to the gender-neutral, indefinite, and reader-inclusive pronoun 'one.' Significantly, Lopez chooses the Inuit term "*quviannikumut*," meaning "to feel deeply happy," to describe the emotion of this profound experience (AD 135). In this manner the text draws its readers into an emotional connection or relationship with the narrator, the guide to the experience, as well as with the Inuit hunter, whose relationship with this animal is both long-term and profound.

Because it induces these inter-subjective, cross-cultural, and (as we shall have more evidence of later) inter-species relationships, the narrator's vision becomes vital to *Arctic Dreams*. In this sense the role of the narrator of this travel narrative resembles the role of the Romantic poet, who through the use of his aesthetic imagination aimed at evoking an image of a world of relationships. Further analyses will show how Lopez in *Arctic Dreams* time and again performs this function. In the following I will assign to Lopez the term *poet* in instances in which his narrative personae engenders a similar sense of a world of relationships, a distinctly ecological vision of the natural environment of the Arctic.

Animal *Umwelten*: knowledge boundaries and beginning empathies

We have now seen how Lopez, through his literary art, transforms the objectified animal into a living presence by aestheticizing multi-sensory experiences through which the animal is either brought back into, or portrayed in its natural state in, the wild. But *Arctic Dreams* is also full of evidence supporting the claim that “[t]he fuller explanations of modern field biology are an antidote ... to [the] tendency to name [or describe] an animal carelessly” (*AD* 129). In comparison with the more traditional biological sciences, field biology inevitably implies a more ecological approach to the study of animals. Field biologists must look to the intricate relationships between the animal and its biotic and abiotic environment to explain its behavior. As they attempt to attune their perspectives to the animals under study – and to what is significant to *them* – field biologists help bring out the unfamiliarity of these animals’ lives.

Although the ecological vision of *Arctic Dreams* depends upon precisely the kind of acknowledgement of animal agency and sociality that field biology’s perspective allows, equally valuable is the way science expands our observational range in a manner that enables us to catch glimpses of other modes of perception. Again, the text’s primary example of this is presented in the chapter on the narwhal.

As Lopez in a moment of perhaps exaggerated environmentalist rhetoric points out: “We know more about the rings of Saturn than we know about the narwhal” (*AD* 128). One reason why the lives of narwhals continue to be obscure to us is that they inhabit a world vastly different in nature from ours, and beyond the range of our sensory perception:

The Arctic Ocean can seem utterly silent on a summer day to an observer standing far above. If you lowered a hydrophone, however, you would discover a sphere of ‘noise’ that only spectrum analyzers and tape recorders could unravel. The tremolo moans of bearded seals. The electric crackling of shrimp. The baritone boom of walrus. The high-pitched bark and yelp of ringed seals. The clicks, pure tones, birdlike trills, and harmonics of belukhas and narwhals. The elephantine trumpeting of bowhead whales. Added to these animal noises would be the sounds of shifting sediments on the sea floor, the whine and fracture of sea ice, and the sound of deep-keeled ice grounding in shallow water. (*AD* 138)

Without the aid of sophisticated technological equipment and scientific analysis of the data recorded, the rich communication between the mammals of the Arctic Ocean would remain unknown to us. So would the sounds of the physical elements of the environment actively interacting in the creation of this world. Significantly, as this excerpt makes clear, a mere technological expansion of our range of perception would produce only noise. More advanced

forms of scientific measurement and analysis are necessary for the rich soundscape of the underwater world to reveal itself to the human senses. In this manner the text speaks to the notion that science at its present level of sophistication produces insights that allow for a radically different interpretation of our natural environment than did science in its earlier forms. With the evolution of science comes the possibility of evolving new relationships with animals.

New knowledge of the way marine mammals communicate through sound has led to the acknowledgement – or “routine presumption” – that whales are “intelligent’ creature[s]” (AD 140). To Lopez, some form of ethical obligation follows from this recognition of animal intelligence. In the case of the narwhal this is expressed though the need to consider the implications of human intervention (in the form of oil drilling) into the natural habitat of the whales. However, as attested by Lopez’s irritation over the way a Canadian government report denies any hazard to narwhals from the “continuous racket of subsea drilling operation,” a mere intellectual recognition of human-like qualities in animals does not automatically entail ethically sound action (AD 140). To achieve this goal, a more profound form of understanding of these animals and their world is needed.

In the chapter on the narwhal, Lopez traces the evolutionary history of *Monodon monoceros* back to an evolutionary root in the Cretaceous geologic period shared with humanity (AD 136). This allows him to reflect upon how evolution has created, from a unitary origin, creatures almost inconceivably different from us. Merging evolutionary biology’s description of “the radical alteration of mammalian development that the narwhal represents” with descriptions about its present physiological characteristics allows Lopez to present his readers with insights into the different reality of the narwhal (AD 137). This is an animal that

‘knows’ according to a different hierarchy of senses than the one we are accustomed to. Its chemical senses of taste and smell are all but gone, as far as we know, though narwhals probably retain an ability to determine salinity. Its tactile sense remains acute. Its sensitivity to pressure is elevated – it has a highly discriminating feeling for depth and a hunter’s sensitivity to the slight turbulence created by a school of cod cruising ahead of it in its dimly lit world. The sense of sight is atrophied, because of a lack of light. (AD 138)

The text thus moves through the recognition of objective facts of common ancestry and the narwhal’s physiology towards a depiction of what it must be like to sense like a narwhal: to be almost without sight, taste, and smell, yet intimately aware – through the touch of your skin – of life surrounding you. The ascription of a hunter’s sensibility to the narwhal

emphasizes that despite its different register of senses, it is highly alert to various aspects of its environment. (A more detailed discussion of the sensibility of the hunter will be offered in the next chapter.) Like all animal subjects, the narwhal is perfectly adapted to its environment (Uexküll *Foray* 50). In *Arctic Dreams* the findings of science thus provide a backdrop of facts through which the reader is drawn into the lifeworld of the narwhal and an empathic relationship with this distant relative. A sense of wonder results from the text's success in bringing the animal away from a merely mimetic representation and into relationship with the reader, as he or she, following Lopez, becomes engaged in trying to see through, or to imagine beyond, the perceptual "constraint[s] on our appreciation of the narwhal's world" (*AD* 138). The text's emphasis on our common ancestry with a mammal at present so radically different from us further highlights the connection between physiology and perception – between the bodily makeup of an animal subject and its lifeworld – so central to Uexküll's theories.

Analogous to the way he brought the narwhal exhibition specimen to life by envisioning it in its natural habitat, Lopez the poet here attempts to bridge the perceptual constraints separating the human from the narwhal. His writing exemplifies Uexküll's *Umwelt* approach through the way its depictions of the narwhal seek to evoke something resembling the animal's own perspective. In this manner Lopez makes use of what Winthrop-Young has identified as the "aesthetic thrust" of Uexküll's writings; the fact that "his new biology implores us not to succumb to ingrained perception habits, [but] to be constantly aware of the way in which we see – and project – our world" (Winthrop-Young 234). Interpreted in this manner, *Umweltlehre* involves the presentation of the familiarized animal in unfamiliar ways; that is, in ways representative of the animal's own lifeworld. In *Arctic Dreams*, it is the application of the new findings of technologically advanced field biology – our enhanced knowledge of the narwhal – that allows Lopez to present the animal in ways that work to defamiliarize what traditional science would reduce and conventionalize through its abstractions and privileged perspective.

To the extent that his knowledge of narwhals allows him to, Lopez communicates a full experience of the living animal. This Western poet can thereby rescue the narwhal from its status (within Western culture) as scientific object, transforming it from lifeless exhibit to living, mysterious subject. In his passage on the narwhal above, like in similar ones describing other arctic animals, Lopez applies his poetic imagination to make a shift in perspective, from the now familiar scientific objective one to the unfamiliar *Umwelt*-sensitive,

subjective one. Through this shift he manages what even modern sophisticated field biology has difficulties doing: bringing the new findings of science to life in a manner that allows us to glimpse the narwhal in its lifeworld. Through a gradual expansion of perceptual modes – from the mere visual and objectifying, through the full range of human senses, and into human perception aided by technology – the text presents signs that allow for interpretations of how the *Umwelt* ‘bubble’ of the narwhal is constructed. Together advanced field biology and *Umweltlehre* do in *Arctic Dreams* indeed evoke a sense of the mystery of the animal. However, the text clearly communicates that for insight into the actual relationships that constitute this world beyond our senses imagination remains the only recourse.

Despite the positive effects on the imagination of the defamiliarizing effects of advanced field biology and *Umweltlehre*, it remains a fact that to Lopez, as well as to his readers, the narwhal was never part of their daily experience, never a familiar animal. Lopez through his text brings this unfamiliar animal closer, so that it becomes possible to imagine a relationship with it. Despite the radical differences in physiology, habitat and lifeworld, *Arctic Dreams* emphasizes a relationship between human and whale made manifest both in their common ancestry and in the scene of the hunt. The common ancestry evoked by Lopez makes the idea of *hyper-separation* between man and animal difficult to sustain. How the scene of the hunt establishes a relationship between human and animal is the topic of the chapter to follow.

Lopez’s animal aesthetics II: the polar bear

Through recourse to technologically advanced field biology, Lopez brings the narwhal out from the obscurity of ice-covered waters and into a sense of relationship. As a final example of how Lopez uses of field biology to provide new and different perspectives on arctic animals, let us look at how he in the chapter on the polar bear, “Törnârssuk: *Ursus maritimus*,” uses the findings of polar bear biologists to challenge the principles of anthropocentrism, and thus to distinguish this animal from the white icy background to which Westerners have tended to relegate it.

To men without knowledge of the polar bear, to men who in earlier centuries traveled to the Arctic “grapp[ing] ... with abstractions of geography, with dreams of a mother lode of wealth in the New World,” Lopez argues, the white polar bear, which in the accounts of several whaling expeditions seemed suddenly and alarmingly to appear from nowhere, did

indeed merge with the background. Preoccupied with their own hopes and fears, these men lost sight of the actual animal, and turned the polar bear into a symbol whose significance changed as their own emotional responses to the Arctic changed (*AD* 110).

By providing a wealth of information about the polar bear from Inuit and scientist observers, Lopez brings the bear itself into focus. His physiological account of it is memorable for the way it presents the polar bear walking directly towards the reader, in the process accounting for the peculiarities of the shape and movements of this part sea, part terrestrial creature. Lopez also engages in aesthetic descriptions of the “subtle coloring” (*AD* 84) of the polar bear’s fur that evoke images not usually associated with polar bears, but with the pictorial arts (Warren 59): “a pale lemon wash, apricot yellows, cream buffs, straw whites,” and “the yellow golds of ripe wheat” (*AD* 84). Accordingly, despite the many objective scientific descriptions of *Ursus maritimus*, the polar bear is in *Arctic Dreams* both an aesthetic presence and a living, moving animal; an animal who holds his ground against human intruders; an animal Lopez wants his readers to envision walking up to meet us face to face.

The fear that nineteenth-century whalers and explorers felt for the Arctic as well as for the polar bear explains how the killing and tormenting of bears could in the nineteenth century become, as Lopez puts it, “the sort of amusement people expected on an arctic journey” (*AD* 111). By way of example, he mentions one incident in which a whaling captain “with nothing else to” on a summer afternoon “shot thirty-five, for sport” (*AD* 111). Providing stories also of whaling crews performing atrocities involving the manipulation of the bond between female polar bears and their cubs, Lopez proceeds to warn his readers that, although these are stories from another era, “the craven taunting, the witless insensitivity, and the phony sense of adventure that propelled them are not from another age. They still afflict us” (*AD* 113). Our culture still retains the general idea that the polar bear, like any other animal, has “no intrinsic worth, no spiritual power of intercession, no ability to elevate human life” (*AD* 113). In this context, the death of the animal still emphasizes its “breach with man” (*AD* 113).

Lopez makes a point of the fact that our culture’s disregard for the polar bear, our failure to see its value in terms of anything but commercially valuable fur or hunting experiences, continued way into the twentieth century. As testimony of this he introduces the factual parts of the “Törnârssuk” chapter by presenting numbers of polar bears killed yearly in the mid-sixties, before the International Union for the Conservation of Nature and Natural

Resources (IUCN) and its Polar Bear Specialist Group was established (the latter in 1968): 300 bears in Alaska, 400 in Canada, 200 in Greenland, and 400 in Svalbard.³⁴ Thus he makes the point that *our* culture sought knowledge about polar bears only after presuming this animal to be threatened with extinction (AD 80).

Lopez follows up his implicit critique of our culture's negligent and instrumental knowledge of the polar bear by providing a wealth of recent scientific information about this animal produced by American, Canadian, and Norwegian polar bear biologists. Like the Inuit, these biologists have spent years following polar bears or their tracks across these animals' home region. According to Lopez's Inuit companions, this is the best way to "reeeally learn something" about the polar bear (AD 97). From tracking and observing bears in the wild, one can learn how a bear, on a July sunny morning, hunted in the shade; how a bear that suddenly turned into a fiord did so because it had identified and scavenged a bird rookery; how a cub, on a cold winter day, "crawled up onto its mother's back for a ride" (AD 97). From such observations, one can begin to form an understanding not only of the intentional actions of the polar bear, but additionally of the "olfactory," "visual," and "thermal" landscapes that constitute its lifeworld (AD 97-98). The fact that the polar bear biologists' methods of tracking and observing the polar bear resemble those of the Inuit may explain why it is in *Arctic Dreams* at times impossible to identify what information about this animal originates with the Inuit, and what originates with Western biologists. Yet even the pooled knowledge of Inuit hunters and field biologists does not yet answer how polar bears find their way in arctic landscapes: how they "consistently travel directly to aggregations of seals," how they "return to core denning and breeding areas every year," and how they "find their way unerringly to the coast from hundreds of miles offshore" (AD 98). In "frozen landscape[s]" of water and ice that, as Lopez points out, are "created anew each year," sometimes even altering daily, the signs the polar bear navigates by remain beyond human perception (AD 98).

The bear as represented by the polar bear biologists Lopez travels with is an animal that, like the Inuit, lives "at the edge of the sea ice and along the shore" (AD 108) and "prey[s] on an impressive range of animals," including several species of seals, beluga (or belukha)

³⁴ The text implies that only a minor part of these killings were performed by Inuit hunters.

whales and narwhals, muskox, walrus, hare, goose (AD 103).³⁵ Because each animal prey according to Lopez “requires something different of the bear,” this has led the polar bear to develop a series of specialized hunting techniques. In the case of its main prey species, the ringed seal, Lopez claims that “[p]robably no other predator employs as many hunting strategies with one animal as the polar bear does with the ringed seal” (AD 101). Within Lopez’s narrative this claim is clearly understood to be based on interviews with polar bear biologists who in various ways state their opinion that, in order to develop and master this range of hunting techniques, polar bears must not only be “fast” and “patient,” but also have the ability to “make[] judgments at every point about what to do” (AD 103). These experienced biologists further attest to the polar bear’s “seeming ability to analyze an unfamiliar situation and attempt a practical solution; on its ability to learn quickly when confronted with something new; and the novel approaches bears take to commonplace situations” (AD 103). Thus for all intents and purposes, polar bears, as Svalbard biologist Thor Larsen puts it, “are smart” (AD 103). Due to their ability to learn from past experiences, to analyze novel situations, and to make judgments about their own actions, polar bears do indeed seem to be rational beings.

According to Lopez, one of the “most intriguing aspects” of polar bear behavior, and one on which field biologists have been able to shed more light, is the female’s denning practices (AD 89). What interests Lopez about these practices are not primarily the metabolic and physiological changes the female goes through during the processes of denning, birthing and nursing. It is on the construction of the den and the social life of the resulting family unit he focuses his attention.

“Bears,” Lopez writes, “are as particular about the type of snow they select for a maternity den as Eskimos are in constructing an iglu, and the two structures have many features in common” (AD 89). After having thus introduced a comparison between the human *iglu* and the polar bear’s den, Lopez goes on to account for the many choices the female polar bear must make in the placement of the den. Not only is she looking for snowdrifts of a certain age, but a placement of these that gives protection from wind and midwinter storms as well as from possible avalanches. Additionally, the den entrance should ideally lie towards

³⁵ Among other things on the polar bear’s menu we also find things “eggs, seaweed, varieties of tundra berries” (AD 103). The diet of the polar bear thus differs marginally from the traditional diet of the indigenous peoples of the region.

the south and west, in order to give springtime cubs the “advantage of the sun’s afternoon warmth” (AD 91). Lopez also provides an account of the general “architecture” of the polar bear’s den, with the qualification that “[t]he variety of structures denning females build is great” (AD 89). He makes the following description of the functionality and energy economy of the den:

By designing for the flow of air and controlling the thickness of snow, an excellent insulator, a female can keep fresh air moving through her den all winter and maintain the temperature at about 32 °F, no matter how cold it gets outside. She does this by radiating a small amount of heat, about as much as a 200-watt bulb, and by trapping that heat in the den chamber with a sloping entrance tunnel and an air dike, or sill, where the tunnel enters the den. She also adjusts the thickness of the roof. (AD 90)

As effectively signaled by Lopez’s use of the term *architecture*, constructing a den is clearly a much more complicated affair than merely digging a hole in the snow. Both the placement and the form of the structure serve specific ends, and vary slightly according to the preferences of the individual animal. As this structure must remain in constant interaction with the outside environment, it makes perfect sense for the polar bear to assign importance to the kind of snow she selects for her den. Lopez’s account further informs us of the work that goes into maintaining the den. If it gets too warm, ice will form on the walls to cool the den and inhibit the exchange of gases through the snow. The bear might therefore have to make repairs and adjustments during the winter; scrape off ice, adjust the insulating layer of snow, or dig a new chamber to her den. When springtime comes, she will also have to expand it to make room for the cubs to exercise, before they venture out into the world (AD 90). Lopez ends his account by voicing the opinion of an experienced Norwegian polar bear biologist who claims that, because den construction is such a complex affair, older females build and maintain dens in which the intricate accounts of heat and gas exchange are “accomplished with more economy” (AD 90). As is the case for humans, experience in the craft yields efficiency.

As Lopez explicitly points out, unlike wolves and narwhals polar bears are “neither gregarious nor social,” but spend much of their adult lives wandering great distances alone (AD 104). By focusing on the denning and nurturing practices of the female, Lopez nonetheless manages to give an image of the polar bear’s nurturant qualities. As readers we are informed about how, after having gone through all the trouble of constructing, maintaining and expanding her den in preparation for her cubs, the female in spring finds a way to “balance[] her desire to leave in order to hunt to feed herself against an investment in

the cub's learning, exercise, and preparation for travel" down to the sea (*AD* 91). Clearly a caring and conscientious mother, Lopez's polar bear is capable of making wise and altruistic choices to the benefit of her cubs. The reward, in Lopez's representation, is the family idyll she may enjoy outside her den at the end of all her efforts:

Their mother often nurses them here in a sitting position in the sunshine, with her back against a snowbank. The cubs lie on her belly. While they nurse she may put her head back and stare at the sky, or roll her head slowly from side to side, or rock her cubs gently in the cradle of her forelegs. (*AD* 91)

This domestic scene of silent polar bear affection (maybe even appreciation or contemplation?) allows comparison to similar human scenes.

Elsewhere in the "Tôrnârssuk" chapter Lopez presents a comparison between the polar bear and the human by offering his observation, in "seeing a polar bear stripped of its skin," of "how disquietingly human its appearance is" (*AD* 109). The observation allows the physical resemblance of the skinned bear to the human body to be interpreted as an affirmation of a basic unity between human and animal. According to Ingold, people of circumpolar hunting cultures believe in the basic unity of all forms of existence. As the skin of the animal is in these cultures understood as the boundary defining the individual animal's way of being in the world – as the "equipment" that allows it to lead the kind of life it does – (Ingold *Perception* 124), "awareness," Ann Fienup-Riordan writes, is "sometimes equated with peeling back the skin" ("Original" 169).³⁶ Lopez's use of imagery can thus be interpreted to express a distinctly Inuit form of awareness of a profound and very basic relationship with the animal.

Together the scene of the polar bear family bliss and the imagery of the inner human form of the polar bear establish similarities in *being* and *behavior* between humans and animals. The family scene also ascribes to the polar bear a kind of caring and altruistic behavior that Western culture has associated with distinctly human inner (moral) qualities. The result is an image of an animal simultaneously different from and similar to the human; an animal whose torturous treatment for 'sport' or 'entertainment' in the hands of nineteenth-century whaling crews becomes almost unbearable.

³⁶ Fienup-Riordan makes this observation about the oral tradition of the Yup'ik.

Challenging *hyper-separation*

Lopez's "Tôrnârssuk" chapter presents a number of other similarities between polar bears and humans. From a Western anthropocentric point of view this would be conceived of as a denigrating reduction of the human to the level of the animal. However, within a non-Western ontology making no clear distinctions between nature and culture these parallels reflect the environmental constraints and opportunities facing human and animal persons in the Arctic. The next chapter will give a brief introduction to the relationship between nature and culture in Inuit ontology, and to the effects of this sense of relationship on conceptions of the animal.

It is an obvious point that because animals have in the indigenous hunter cultures of the Arctic been the (almost) exclusive means of survival, dependence on the animal have in these cultures never been denied. To the contrary, the animal is acknowledged as important to the life and welfare of human beings in matters also beyond the material. The field biologists Lopez travels the Arctic with portray the polar bear in much the same way the Inuit do. This supports Lopez's hope that by shifting the focus and method of study – by looking at aspects of polar bear life that lie beyond its placement in the chain of predation, and by studying these aspects in the wild – modern science may relinquish the idea of an absolute and radical break between humans and animals. Once science begins to study the "full exercise" of the life of an animal like the polar bear (*AD 89*), our culture might choose to leave the metaphor of the abyss separating the human from the animal, and on the basis on new-won knowledge begin instead to describe biological life on a continuum of consciousness and form. In asserting the "full exercise" of the life of the polar bear to be "beautiful" like "the skater's long, graceful arc" (*AD 89*), Lopez affirms an aesthetic awareness to be a necessary element in our culture's progression towards a fuller understanding of the animal.

The polar bear may be a good place to start the process of recuperating the animal. Stories of the polar bear's shrewdness and power already exist, and a writer like Scoresby offers a series of anecdotes attesting to the "powerful and courageous; savage and sagacious" nature of this animal (517). The fact that the polar bear is the only animal in Scoresby's "Fauna Arctica" sketch for which the distanced depiction of the animal object subtly slips into descriptions of an animal subject can furthermore be taken as evidence of the special position the polar bear enjoys in the world of animals (518). Equally important may be the fact that, except for a few trappers and trophy hunt organizers, the polar bear was never a commercially important animal; never an animal our culture saw the need to objectify in order to exploit.

In highlighting characteristics like individuality, volition, intelligence, and rationality that the polar bear shares with the human, Lopez can present this animal as neither radically separate nor inferior to us. However, beyond emphasizing such similarities, Lopez further alerts our attention to characteristics the polar bear possesses that humans do not. Among these we find the bear's remarkable navigational skills, both incomprehensible and superior to comparable (Western) human skills. As the foundation and ultimate functioning of these navigational skills remain a mystery to science, the text inscribes a *positive* difference to the polar bear. The fact that the human is a prey species to the polar bear further confirms the bear's ability to both *look at* the human and to *absorb* the human into its lifeworld as an object of potential use value. In *Arctic Dreams*, this positive difference of the polar bear vis-à-vis the human being exists in conjunction with the assertion of a basic unity between human and animal.

In his description of polar bear denning practices, Lopez emphasizes that polar bears, just like humans, make conscious choices to alter their environment in accordance with their own needs. Like other of the polar bear's actions, the alterations reflect the experiences, conscious evaluations and preferences of each individual female. Lopez's detailed account of the polar bear's den clearly signals his recognition of the achievement involved in the construction and maintenance of this piece of "architecture" (AD 89), asking us as readers to do the same. This effectively blocks what Plumwood calls a *backgrounding* or *denial* of the animal. Together with the wealth of scientific information provided, this is the means through which Lopez prevents the polar bear from again becoming a nonentity – a mere symbol of our own conceptions about the Arctic. It is also, in an important way, what prepares the ground for Lopez's later evocation of arctic landscapes as civilizations. (More on this in Chapter Five.)

A final polar bear scene

After Lopez has thus brought the polar bear into focus and proximity, it becomes possible to recognize the reduction of the animal that occurs in the encounters between contemporary human societies in the Arctic and the polar bear. As an example of such an encounter, Lopez describes the strange and dangerous situation of the town of Churchill, Manitoba, where a growing polar bear population each fall visits the town's local garbage dumps, and where the animals are sometimes welcomed as tourist attractions, sometimes sedated, tagged and flown

off as threats. More crucially, moreover, the polar bear's encounters with modern society also include meetings with representatives of the scientific community.

In the final scene of the "Tôrnârssuk" chapter we find Lopez in the company of field biologists, participating in what he describes as the "somewhat somber duties" of reporting abstract data about the bears and fitting them with radio collars that allow satellite tracking (*AD* 118). In order perform this duty the biologists have sedated a female polar bear from their helicopter. As they "make their measurements," Lopez moves close to the animal to "look[] at the details of her fur and [feel] the thickness of her ears, as though examining a museum specimen" (*AD* 118). In this scene, which is so upsetting to Lopez that he has to remove himself some distance from the animal, the living, powerful, and almost human polar bear is, in the hands of well-meaning field biologists, turned into a museum specimen. The very science that has helped generate an understanding of the polar bear as a powerful, living creature (and that similarly helped the narwhal come to life), momentarily renders it lifeless. Even field biology, Lopez here implies, cannot completely escape the reductionist impulse and the disrespectful practices of science.

As the unconscious bear is rolled over on her back, Lopez, from a distance, catches a glimpse of "a trace of pink in the white fur between her legs ... in the size and shape like a woman's" (*AD* 118). Although all he has done is to cast a look at the female bear's genitalia, he has the distinct feeling of having "invaded her privacy" (*AD* 118). Lopez's sense of violating the polar bear through a mere look is, of course, conditioned by the action of the scene. It expresses Lopez's recognition of the fact that the look is the chief instrument of science, and that the polar bears' temporary lifelessness and defenselessness are enacted precisely to grant science this look at the animal object. Whereas humans in the Arctic may protect themselves from polar bears by erecting fences, sedating them and flying them off beyond what we have defined as 'our' domains, the polar bear cannot similarly protect itself. Neither its territories nor its body remain beyond human invasion. In the final instance, even the most well-intentioned scientific inquiry depends upon momentarily depriving the animal of all agency, thereby eliminating the limits to intrusion.

By describing the polar bear's vulva as similar in form, size and color to the human vulva, Lopez not only activates his previous image of the female polar bear as caring mother, but also reminds us that within the context of our own species, such an act of unconsented sedation and objectification – even for the purpose of looking – would most certainly be considered an act of transgression. His comparison may also be interpreted to subtly hint of

the way reductionist science throughout history has not always limited its trespassings to animals. Despite its ameliorating effects on our mechanistic conceptions of animals, field biology ultimately proves the inability of science to leave reductive dualisms. This is why Lopez in the final instance needs more than science in order to fully recuperate the animal. This is why Lopez needs the hunter's engagement with the animal and the Inuit hunter's ontology.

Having in this chapter shown how field biology and *Umweltlehre* contribute to Lopez's understanding of animals and animal lifeworlds, I will in the next chapter explore how Lopez applies arctic indigenous hunters' perspectives on the natural world to further develop his understanding and representation of animals. Together these scientific and indigenous modes of perception involve a high level of sensitivity towards the physical environment and towards the manner in which subjects, be they human or animal, are caught up in intricate webs of relationship with the constituents of their environment.

Chapter Four: Hunting as engagement with the environment

Scientific facts are of vital importance to Lopez's portrayals of arctic animals, and when reading *Arctic Dreams* we discover that Lopez has traveled extensively in the company of field biologists. Yet it is the hunter's mode of engagement that engenders his curiosity and responsibility towards the animals he encounters, and it is the Inuit he presents as his "well-chosen companions" on his journeys through the Arctic (*AD* 40). Non-Western cultural traditions, like that of the Inuit, are valuable to Lopez not only for their extensive knowledge of wild arctic animals, but also for the manner in which they may offer insights into ways of overcoming the Cartesian dualisms that separate man from the animal, culture from nature.

This chapter investigates how Lopez establishes the activity of hunting as the means through which new and better understandings of arctic animals and their landscapes may be developed. Because it is a region in which traditional hunter cultures have to some extent maintained a sense of reciprocal agreement between humans and animals, the Arctic seems a natural point of departure for Lopez's search for new contracts for human-animal relationships. Where the former chapter pointed to similarities and differences between Western and Inuit forms of observing and envisaging the animal, this chapter will account for similarities and differences between Western and Inuit perspectives on hunting. Central to my discussions on Western conceptions of hunting will be José Ortega y Gasset's philosophical *Meditations on Hunting*. By introducing Tim Ingold's theorizations on the perception of the environment in circumpolar hunter cultures, I will uncover the tacit presence also of distinctly Inuit perspectives on animals and landscapes in Lopez's text. I will further show how Lopez establishes the perspective of the native hunter to be what allows a reading of arctic landscapes in terms of texts co-authored by humans, animals, and physical phenomena.

Hunting from a Western perspective

Lopez's *Arctic Dreams* can be read as an extension of a Western hunting philosophy in which hunting is regarded as an activity through which a reconnection with the natural world is still possible. This idea is presented by philosopher Jose Ortega y Gasset in his now classic 1942 *Meditations on Hunting*, published in English in 1972. In this text Ortega states that

[m]an cannot re-enter Nature except by temporarily rehabilitating that part of himself which is still an animal. And this, in turn, can be achieved only by placing himself in relation to another animal. But there is no animal, pure animal, other than the wild one, and the relationship with him is the hunt. (130)

Lopez uses the activity of hunting as a framework for his exploration of new ways of representing the animals of the Arctic that engender a sense of relationship with them. The idea that the hunter possesses a particular mode of perception that encourages the recognition of such an animal-human relationship is foundational to the literary project of *Arctic Dreams*.

The idea that in hunting the human reestablishes a connection not only with the animal, but also with his own biological past, is in *Arctic Dreams* presented in “Chapter Two: Banks Island *Ovibos moschatus*.” As Lopez here watches from a distance the muskoxen in the Thomsen River valley, he feels stirring within himself “an older, deeper mind ... alerted by the flash of light from those distant, long-haired flanks” (*AD* 43). This mind holds his “predatory eye ... riveted” (*AD* 43). By inscribing hunter impulses deep within the modern human being which may be re-awakened by the sight of wild animals, Lopez here introduces the reader to his elsewhere openly stated view that “human beings [are] a Pleistocene species rather than a twentieth-century phenomenon” (“Renegotiating” 383). In thus labeling humankind, Lopez aligns his writing with the Pleistocene paradigm developed by Paul Shepard, in which man is thought not to “graduate *from* animality but ... *into* it and *through* it” (Shepard “Thinking” 24, italics mine).

The Pleistocene paradigm asserts that the difference between the human and the animal is a function *of* the ecosystem rather than the result of mankind’s disassociation *from* it. Humans are perceived as different from animals on the basis of our peculiar evolutionary history as primates turned predators (Shepard *Carnivore* 128). In the Pleistocene paradigm, like in *Arctic Dreams*, there is no sense in which the human is deprived of the qualities Western philosophy has found to define us in opposition to the animal.³⁷ Rather, as already

³⁷ In *The Animal That Therefore I Am*, Jacques Derrida identifies language to be one of the qualities whose lack defines the animal as qualitatively different and separate from the human: the animal can only automatically *react*, not *respond* (Derrida *Animal* 32). The animal is also deprived of the “‘I’ [in] the ‘I think,’ the originary unity of the transcendental apperception that accompanies every representation” (Derrida *Animal* 92). Consequently *not* a rational being, the animal is deprived of “liberty and autonomy, [and] cannot become the subject of rights and duties” (Derrida *Animal* 99). With this loss of subjecthood, the animal also loses its dignity – “the value of an end in itself” (Derrida *Animal* 100).

exemplified in discussions on the polar bear, the animal portrayals the text offers indicate that some of the characteristics thought to define the human can also be rightfully ascribed to animals. Significantly, in *Arctic Dreams* the narrator's route to this realization follows a path across land shared with animals and directed by his attentive awareness of them. Its trail closely resembles the trail of the hunter.

Western thinkers who have examined the significance of the hunt have emphasized the way in which this activity generates ecological awareness in the hunter. Because the world of the hunt is a world of unpredictable events, the hunter's attention needs to stay sensitive to all possible clues of *what* might go on *where* (Shepard *Carnivore* 147-48). The physical environment is that from which these clues may be obtained. Accordingly, Ortega finds hunting to involve

an attention which does not consist in riveting itself on the presumed but consists precisely in not presuming anything and avoiding inattentiveness. It is a 'universal' attention, which does not inscribe itself on any point and tries to be on all points. There is a magnificent term for this, one that still conserves all its zest of vivacity and imminence: alertness. The hunter is the alert man. (138)

Unlike the focused and often reductive activities of scientists, and unlike the land-use activities associated with agriculture, the activity of hunting necessitates a 'universal' attentiveness, one through which the hunter's experience of the surrounding natural environment becomes less rationally mediated. The reason why this activity demands a more direct and heightened state of alertness is because in hunting the environment no longer exists as a mere backdrop or homogenous background (Plumwood 102-04) to human action. Instead,

[a]rticulated in that action ... wind, light, temperature, ground contour, minerals, vegetation, all play a part; they are not simply there, as they are for the tourist or the botanist, but rather they *function*, they act.... each intervenes in the drama of the hunt from within itself, with its concrete and full being. (Ortega 132)

Ortega here implies that the hunter perceives the physical environment in terms of actants (rather than inert objects),³⁸ whose participation in dynamic actions must be read and

³⁸ In Latour's definition, an *actant* is "something that acts or to which activity is granted by others" ("Actor-Network" 375). An *actant* implies no human individual actor; it might be neither pure object nor pure subject and can, as Latour puts it, be "literally anything provided it is granted to be the source of an action" ("Actor-Network" 375). As Jane Bennett specifies, an *actant* may incorporate the ability

understood in order for the hunt to be successful. The hunter's own actions are caught in and determined by the ongoing actions to which these actants contribute. Accordingly, the hunter finds himself caught in a vast force-field of living and non-living forces; of acting animals and agentic materiality whose inter-relationality he must attempt to interpret. In tracking the animal, the hunter must further learn to read the signs left by the animal. In this sense the activity of hunting, even in Ortega's 1942 meditations, implies a reading of the nonhuman signs of the landscape and a beginning understanding of the agentic nature of inanimate matter.

In hunting the hunter becomes involved in detailed study of the manifold elements of the environment. He assumes a posture of alertness towards, and active interaction with, the environment that Western culture has associated with animals. In so doing, the hunter places himself in relation to the animal. This involves not merely the reading of environmental signs for the whereabouts of animal prey, but additionally an active attempt on the part of the hunter to understand how the animal perceives and responds to the environment, and to attune his own perceptions and responses to that of the animal.³⁹ Ortega expresses this as the hunter's attempt to integrate his vision with that of the animal (132). Hunting in this manner becomes "*an imitation of the animal*" (Ortega 132):

In that mystical union with the beast a contagion is immediately generated and the hunter begins to behave like the game. He will instinctively shrink from being seen; he will avoid all noise while traveling; he will perceive all his surroundings from the point of view of the animal, with the animal's peculiar attention to detail. This is what I call being *within* the countryside. (Ortega 132, italics mine)

Through this assertion, Ortega expresses a fundamental idea associated with Western philosophies of the hunt: that hunters are no mere tourists exploring surfaces, but people aiming at full integration into the environmental present (Franklin 106). The activity of hunting comes to express an idealist movement towards a more phenomenological

to initiate an action by way of its participation in larger networks or assemblages. A term interchangeable with "the Deleuzian 'quasi-causal operator,'" an *actant* is often "that which, by virtue of its particular location in an assemblage and the fortuity of being in the right place at the right time, makes the difference, makes things happen, becomes the decisive force catalyzing an event" (Bennett 9).

³⁹ In Ortega's *Meditations*, the hunter juxtaposes this adopted animal perspective with his own human one. In this text, like in Lopez's *Arctic Dreams*, hunters are without exception male.

engagement with the natural world that might be conceived of as a “form of environmentalism” (Franklin 123-24).

“When one is hunting,” Ortega writes, “the air has another, more exquisite feel as it glides over the skin or enters the lungs, the rocks acquire a more expressive physiognomy, and the vegetation becomes loaded with meaning” (131). The hunter’s increased sensitivity towards the physical environment is aroused in the attempt to take on the behavior and the perspective of the animal prey, to become part of the action of the environment. It is the result of the ‘mystical’ way in which “the hunter, while he advances or waits crouching, feels tied through the earth to the animal he pursues” (Ortega 131). Perhaps as a result of the ‘contamination’ from the animal, the experience of the hunt also involves for the hunter an aesthetic experience of heightened sensitivity to “how the world strikes the body on its sensory surfaces” (Eagleton 13). Within this experience, the meaning of the physical objects of the environment becomes both altered and enhanced, signaling these objects’ participation in systems of signification beyond the hunter’s habituated everyday interpretation and related specifically to the activities of hunt. Thus tied to the animal and to an earth reconceived in terms of an unpredictable force-field of actants, Ortega’s hunter perspective is a phenomenological perspective from *within* the landscape.

In maintaining that the fundamental human condition is to be a hunter, *Arctic Dreams* by extension emphasizes the connection between hunting as a way of life and a heightened sensibility towards the ecological relationships of the environment. However, the *dwelling* perspective Lopez aspires to is not to be found within Western philosophies of the hunt. Ortega represents a historical and distinctly Western cultural perspective that insistently focuses on the mystical essence of the hunt and does not distinguish between the “utilitarian or sporting” purposes of this activity (57). Lopez, on the other hand, recognizes that these two perspectives in important ways form both the activity of hunting itself and our opinion of this activity. In *Of Wolves and Men* he clearly expresses how critical he is of the “convention in popular sociology” that sees hunting as “both overcompensation for a sense of impotence and an attempt to reroot” modern man “in the natural world” (166). Against the backdrop of the mass slaughter of the wolf and other large mammals on the North American continent in the hands of Western settlers, Lopez emphasizes the way hunting for sport radically changes the relationship with the animal prey. Whereas “the modern hunter plays lip service to the ethics of the warrior hunter – respect for the animal, a taboo against waste, pride taken in highly developed skills like tracking,” Lopez argues, “his actions betray him” (*Wolves* 166). And

while Western hunting practices may expose an unsettling disrespect for the animal, our *ideas* about hunting may cause us to regard with disdain the hunting practices of subsistence hunters. When Lopez in *Arctic Dreams* comments on the fact that the indigenous “hunter’s utilitarian appreciation of [the narwhal] is an attitude some now find offensive” (AD 148), this not only speaks to a public consciousness about the general threat to wild animals and their natural habitats, but also to the way our conception of hunting is colored by “anti-modern” and “nostalgic” discourses associated with Western traditions of hunting for sport (Franklin 106).⁴⁰

In Western narratives about hunting as *sport* the hunter leaves the “crowded and congested city,” with its complex division of labor, to experience the “loneliness and isolation” of nature (Franklin 106). In nature he can prove his full capabilities as a human being through his (masculine) self-sufficiency. The geographical movement from the city to the countryside or wilderness signals a symbolic movement away from modernity’s “demand for progress and its blasé indifference to environmental effects” and into a kind of “conservation ethic, a love of specific country, of its flora and fauna and attentiveness to its detail” (Franklin 106). In this sense the activity of hunting involves a modern pastoral impulse we find expressed also in the literary tradition of Romanticism and in Romantic nature writing.

The return to nature through association with the animal is part of what literary scholar Philip Armstrong has described as a theriomorphic primitivist paradigm in modernism that was both pervasive and influential in the first part of the twentieth century (143). Within this paradigm, “[a]nimality, at its most wild and untamed, [is] not the enemy of humanity,” but rather the means through which humanity may hope to “cut through the corrupt impedimenta of civilization” (Armstrong 143). The killing of animals is understood in terms of “re-enactments of primal rituals” that reconnects the human to “the anthropological and ontological foundations” of being – to what is authentically human (Armstrong 150). These rituals provide the human with the “revitalizing energy,” the “vitality and purity” of the (wild)

⁴⁰ Lopez himself exemplifies the way these discourses interact and sometimes collide through his ambivalent attitude to hunting. Even as the activity of hunting is idealized as a means through which a dwelling perspective might be achieved, and the text in its entirety signals his respect for the skill and knowledge of the indigenous hunters he accompanies, Lopez repeatedly expresses feelings of horror and disgust in seeing animals killed.

animal killed (Armstrong 153). Important to note in this respect is that, as part of the human-animal dualism of modern culture, the concern of theriomorphic primitivism is with animality in general – with the animal as *essence* – rather than with individual animals. Distancing itself from the Victorian sentimentalism of the previous century, theriomorphic primitivism moved away from concerns about animal welfare (Armstrong 150). Instead it worked to idealize acts of combat with animals of the kind that hunters still today find to be ideal prey: “worthy opponents” with qualities such as “aggression, courage, vigour, [and] strength” signaling their vitality (Franklin 121).

According to Armstrong, writers like Ernest Hemingway did much to boost the popularity of “[t]rophy-hunting, shooting safaris, big-game fishing and bullfighting” (153). All of these activities were presented in the form of masculine sporting contests. In Armstrong’s analysis, such contests expressed modern capitalist society’s competitive and aggressive individualism (153). As Lopez’s chapter on the polar bear attests, the former of these ‘blood sports’ also took place in the Arctic.

Despite the environmentalist assumptions of *Meditations on Hunting*, Ortega’s hunting philosophy shares fundamental presumptions about humans and the natural world with Hemingway’s counter-modern theriomorphic primitivism (Armstrong 154). In addition to viewing the capture and killing of the animal as a way of transcending the present and “renewing the primitive situation” (Ortega 126), the position of the human in relation to the animal is the same. For even if Ortega claims that “*hunting is an imitation of the animal*” that leads to a “mystical union with the beast” (132), it is also “irremediably an activity from above to below” (61). The very nature of the hunt presupposes the superiority of the hunter over the hunted. This is emphasized in Ortega’s definition of hunting as “*what an animal does to take possession, dead or alive, of some other being that belongs to a species basically inferior to its own*. Vice versa, if there is to be a hunt, this superiority of the hunter over the prey *cannot be absolute*” (62). Naturally, hunting occurs throughout the world of animals. But in the case of animals hunting other animals, neither rationality nor intent is ascribed the hunter. In this case hunting becomes instead “*a contest or confrontation between two systems of instincts*” (Ortega 64). Humans hunting animals is a different situation entirely. Presuming human separation from and absolute superiority over nature, Ortega argues that in hunting the modern human must “restrain[] his excessive endowments and begin[] to imitate Nature” (63). Accordingly, “[t]here is ... in the hunt as a sport a supremely free renunciation by man of the supremacy of his humanity”(Ortega 63). Although it involves imitating or identifying

with the animal, in sport hunting the animal is appropriated and the rational human's domination over and against the natural world is reaffirmed.

Let me make one more point about Western conceptions about hunting as sport, as expressed by Ortega. To Western hunters, the hunt seems to be the *only* possible relationship with the wild animal. Other and more social forms of relationship with animals are not conceived of. The Western hunter, in other words, has no real sense of the 'community of creatures' that exists in the natural world beyond his own actions. The momentary relinquishment of human superiority required by the activity of hunting in effect reinforces the absolute difference between human and animal. The hunter's attentiveness to the life and agencies of the natural environment does not seriously challenge the fundamental mind-matter dualism that governs the human relationship with nature; it merely shifts the focus away from the associated dualism of active humanity versus passive nature towards the dualism of rational humanity versus irrational animality. These are all reasons why a nature writer like Lopez must strive towards the Inuit (rather than the Western) hunter's perspective in seeking to achieve an inside *dwelling* perspective on the Arctic and its animals.

Hunting from a Northern perspective

According to anthropologist Tim Ingold's studies of hunter-gatherer cultures of the circumpolar north, also the Inuit believe the hunt to involve active participation with the elements of the environment. In Inuit cultures, the world is seen as comprised not of things but of events. Hunters, be they human or animal, are "immersed from the start ... in an active, practical, and perceptual engagement with constituents of the dwelt-in world" (Ingold "Hunting" 34). The northern hunters' perspective of the world represents a true *dwelling perspective*, "a perspective that treats the immersion of the organism-person in an environment or lifeworld as an inescapable condition of existence" (Ingold *Perception* 153). Edmund Carpenter, in his *Eskimo Realities*, describes this focus on events as a necessary consequence of the characteristics of the land. In a monotonous landscape in which the contours of snow or ice, sky and water are sometimes indistinct, "nothing ... easily defines itself and is separable from the general background" (41). Accordingly, Inuit hunters are "interested not in scenery, but in action" (Carpenter 41). As hunting represents to them a way of life rather than a mere past-time activity, this attentiveness to action pervades the Inuit's understanding of the world.

Relying on Alfred Schütz's definition of sociality, Ingold claims that the engagement between hunter and prey in circumpolar hunter cultures figures in the form of social relationships manifested through non-verbal communication (Ingold "Hunting" 46-47). In Schütz's definition, sociality is seen as "constituted by communicative acts in which the I turns to the others, apprehending them as persons who turn to him, and both know of this fact" (165; cf. Ingold "Hunting" 47). The activity of hunting activates the communication between human and animal. Its success depends upon the hunter's skill in engaging with and understanding how this other (animal) person attends to the environment according to its own modes of perception and action (Ingold "Hunting" 46).

Animal sociality is not restricted to hunter-prey relationships. Northern indigenous hunters recognize that animals form social groups, and that each animal has a communicative point of view; each is a person. Similarly, the human represents just one among the world's multiple points of view, generated through each person's capabilities of perception and action. In this manner hunting comes to represent a form of communication in which the animal point of view is acknowledged and understood to express the way in which the other person attends to the world according to his/her modes of perception and action (Ingold "Hunting" 46). Thus, writes Ingold, "personhood is not the manifest form of humanity; rather the human is one of many outward forms of personhood" ("Hunting" 44). Accordingly, in northern hunter cultures humans and animals are ontologically equivalent (Ingold "Hunting" 45-46).

Inuit cultures differ from modern Western cultures not only in ascribing personhood to animals but also in their understanding of what a person *is*. Whereas modern Westerners have traditionally understood persons to be autonomous subjects defined by their inner qualities, northern hunters regard persons to be *relational* entities defined by their positions in the relational field (Ingold *Perception* 149). As the relational field unfolds, it "actively and ceaselessly brings forms [/persons] into being" (Ingold "Hunting" 45). Within this field, the person or being represents a locus of self-organizing activity, which "exists, or rather becomes, in the unfolding of those very relations that are set up by virtue of a being's positioning *in* the world, reaching out into the environment – and connecting with other selves" (Ingold *Perception* 103). In this animistic perception of the world personhood is intricately bound to life's manifold relationships. The relational field is no abstract category or field of social intersubjectivity, but the *land* itself (Ingold *Perception* 149). The placement and actions of each person within this field determines his or her own "perceptual orientations" and "very substance of ... being," while similarly contributing to the same in

other persons (Ingold *Perception* 144). Reality is thus “relational through and through” (Ingold *Perception* 149).

Northern indigenous hunters’ conception of animal sociality has in recent years found support within the scientific disciplines of ethology and ecological psychology. Ecological psychologist and philosopher of science Edward S. Reed argues that sociality is a natural phenomenon in humans and animals alike (116-17). (Sociality is figured here in terms of the individual’s realization that the natural environment is shared with animate others.) This phenomenon has “evolved as a refinement of ... perception of, and action in, the environment” (Reed 123). The idea of a fundamentally social natural environment not only changes the notion of the subject (which becomes shared rather than private), but also of perception. Because perception already includes socialized awareness, it *precedes* interpretation and reference to socially constructed categories or meanings. In this manner both the Western and the Inuit social-ecological conception of the natural environment counter the social constructivist idea that the environment must be “‘grasped’ conceptually and appropriated symbolically” before it can be understood (Ingold "Hunting" 34). The social-ecological model instead proposes that knowledge of the world is gained not through “construction” but through “engagement” with this world and its others (Ingold *Perception* 55).

According to the indigenous hunters of the north, then, the hunter’s relationship with the animal prey is part of a larger system of relationality that involves the physical environment; an *animic* model of the lifeworld.⁴¹ Ingold alerts our attention to the fact that within this northern and radically relational form of animism, the source of life is thought to lie neither in the land itself, nor in its inhabitants. In this manner northern hunter ontology deviates from the ontology of therio-primitivism as well as from totemic ontology.⁴² The relational model, writes Ingold,

⁴¹ The word ‘*animic*’ originates in Phillippe Descola’s description of “animic systems” as something distinguished from the traditional understanding of animism, which, Ingold claims, has been used in a very liberal manner “to brand, as primitive superstition, systems of belief which allegedly attribute spirits or souls to things, living or non-living” (Ingold *Perception* 106). Descolas “animic systems” signal an understanding of animism more respectful of indigenous ontologies. In such systems, “relations between persons – that is *social* relations – can override the boundaries of humanity as a species” (Ingold *Perception* 107).

⁴² In totemic ontology, Ingold informs us, the land is perceived as that which determines the forms life can take and which holds the vital forces that animate the beings of the land (*Perception* 112).

does not counterpose the land to its inhabitants along the axis of a dichotomy between the animate and the inanimate. A founding premise of the model is that life, rather than being an internal property of persons and things, is immanent in the relations between them. It follows that the land, comprised by these relations, is itself imbued with the vitality that animates its inhabitants. The important thing is to ensure that this vitality never ‘dries up’. As hunters and gatherers have explained to their ethnographers, with remarkable consistency, it is essential to ‘look after’ or care for the land, to maintain in good order the relationships it embodies; only then can the land, reciprocally, continue to grow and nurture those who dwell therein. (*Perception* 149)

What drives the vitality of the relational field is the reciprocal “give and take of substance, care, and vital force” (Ingold *Perception* 113). Ingold coins the term *progeneration* to account for this process for the continuation of life, defining it as “the continual unfolding of an entire field of relationships within which different beings emerge with their particular forms, capacities and dispositions” (*Perception* 142).

Unlike the Western model of generation, in which life is an attribute of the individual person, the relational model does not enclose life within generations. Rather, life is a temporal process of creation in which each being by necessity must draw upon the vitality of others (Ingold *Perception* 113). The land itself is neither separate nor changeless, but takes the form of an “all-encompassing rhizome – which is continually raveling here, and unravelling there, as the beings of which it is composed grow, or ‘issue forth’, along the lines of their relationships” (Ingold *Perception* 149-50). The primary life-enhancing task for the northern hunter thus becomes, as evidenced in the excerpt above, to know and tend to the relationships encompassed within the land rather than to the individual animal persons inhabiting it. If, as philosopher and historian Sharon E. Kingsland claims, “[e]cology is the study of patterns in nature, of how those patterns came to be, how they change in space and time, why some are more fragile than others” (1), we can understand the perspective of the Inuit hunter to be a distinctly ecological one. It is furthermore one which does not distinguish between ecological relationships and social relationships (Ingold “Hunting” 49). Although a consideration of the health of larger relationship networks is from this ecological perspective more important than a consideration of individual animals, as subjects in their own right animals are in Inuit cultures treated with respect. Lopez expresses this insight in stating that “[f]or Eskimos, most relationships with animals are local and personal. The animals one encounters are part of one’s community, and one has obligations to them” (*AD* 201).

The concept of progeneration involves the uninterrupted circulation of vital force through transient forms of being. It follows that within this process, death does not punctuate

life, but merely re-channels it towards other forms. Hunting, which for the human includes the acts of killing, consuming, and disposing of animals, can thus be regarded as the epitome of progeneration; as a world-renewing activity that has its basis in personal and dialogical relationships (Ingold *Perception* 143, 114). The hunter's tools serve within this relational field as "links in chains of personal rather than mechanical causation, serving to draw components of the environment into the sphere of social relations" (Ingold *Perception* 289-90). The act whereby the animal allows itself to be killed by the hunter manifests the relationship, and is by northern hunters regarded in terms of a "contract between partners" in which the hunter recipient, who depends on the animal for his livelihood, holds an equal or slightly subordinate position to that of the animal (Brody 73; cf. Ingold *Perception* 320). "If the arrow misses its mark, or if the trap remains empty," writes Ingold, "it is inferred that the animal does not as yet intend to enter into a relationship with the hunter by allowing itself to be taken" (*Perception* 320). This is further the reason why, if and when the animal prey chooses to yield its life to the hunter, the relationship between human and animal must be honored and maintained by indigenous hunters through ceremonial salutation to the prey.

In view of this, Lopez can be said to display general but sound anthropological knowledge when asserting that "[t]he evidence is good that among all northern aboriginal hunting peoples, the hunter saw himself bound up in a sacred relationship with the larger animals he hunted" (*AD* 199). In a worldview like this, in which the physical environment is thought to enable and hold all relationships and all forms of life, it becomes impossible to disassociate the human being from the web of relationships without also disassociating him from life. There can be no qualitative "rupture or abyss" separating the human from the animal (Derrida *Animal* 30), because that would make it impossible for the human to enter into that relationship with the animal that sustains his life.

This understanding of hunting is radically different from the Western one, represented by Ortega, in that it does *not* perceive hunting to be "irremediably an activity from above to below" (61). Unlike the modern Western sport hunter, the indigenous hunter of the Arctic does *not* renunciate "*the supremacy of his humanity*" in going after his prey (Ortega 63). Because his very survival depends upon the animal prey, no such supremacy exists. In hunting, and especially in hunting other large and intelligent mammals, the human is not ontologically above the animal, and not set apart from the environment surrounding him/her. Instead, according to the account in *Arctic Dreams* of the hunting relationship between the

Inuit and the polar bear, human and animal must attempt to make the best of what they are, and possibly learn some tricks from their opponent.

Lopez the hunter

In both Western and northern circumpolar ‘philosophies of the hunt’ the knowledge of the hunter is believed to be a subjective, practical and context-dependent form of knowledge based on observation, imitation and dialogue with the natural environment. However, because the Inuit’s very existence has traditionally depended on the animal, it is in *Arctic Dreams* the Inuit hunter who has developed “a predator’s alertness for minutiae, for revealing detail” which makes it possible for him to recognize “the vaguest flutter of life in an environment that seems featureless and interminable to the untrained eye” (AD 96). This visual perceptiveness is characteristic of what Lopez terms “the native eye,” which in this text exists in contrast to his own non-native, untrained eye (AD 97). The ‘native eye’ registers minute characteristics and is sensitive to the many complex and intimate interactions between the biotic and non-biotic elements of the ecosystem. It is, in other words, an eye with an acute and a profoundly ecological mode of vision.

In Ingold’s description, the experience of “sensory participation” in “the movement” of the multiple aspects of world is precisely the experience of the hunt (*Perception* 99). What Lopez terms the ‘native eye’ should therefore be understood as the native *hunter’s* eye. The perceptiveness, deep engagement, and patience of this eye are evoked in Lopez’s report on the time it takes an Inuit hunter to inspect the land through a pair of field glasses:

Long after the most inquiring nonnative has grown weary of glassing the land for some clue to the movement of animals, a hunter is still scouring its edges and interstices. He may take an hour to glass 360° of the apparently silent tundra, one section at a time.

You can learn to do this; and such scrutiny always turns up a ground squirrel, an itinerant wolverine, a nesting bird – something that tells you where you are and what’s going on. And when you fall into the habit, find some way like this to shed your impatience, you feel less conspicuous in the land. (AD 260-61)

The long time used in the inspection of the ‘apparently silent tundra’ is here interpreted as proof that the hunter is in possession of a fine-tuned perceptual system through which the environment becomes an inexhaustible source of information. The hunter, whose very existence depends upon his skill, is able to read and interpret a complexity of physical and

biological signs that lie beyond the perception and comprehension of the visually attuned Western ‘nonnative’ hunter or visitor. In this sense, the level of information to be gained from the environment seems to be determined by the combination of interest and need in the observer.

Lopez, who like former explorers and “reluctant” Arctic travelers is disentangled from sustenance bonds to the land, nevertheless asserts that the vision of such a ‘native eye’ may be acquired (*AD* 272). This reflects his conviction that humans are still fundamentally a species of hunters, and that it is still possible for us to become “involved in the land” (*AD* 384). At the same time, the distinction he recognizes between a truly native vision of the land and his own serves as reminder of the power of the perceptual frame to determine what *can* be seen. To acquire the vision of the ‘native eye’ may on a superficial level be a question of attentiveness to environmental detail and of ecological knowledge. More fundamentally, however, it involves acquiring an ontological framework that allows animal agents and non-animal actants to be truly seen: a framework involving a different “distribution of the sensible” (Rancière 12). In this sense, Lopez’s representation of the Arctic may try to evoke, but will never truly represent, an Inuit native perspective. This is a fact explicitly signaled several places in the text, both in the way the narrator emphasizes the subjective nature of his representations and in the way he consciously evaluates our culture’s perceptions of the Arctic and its animals against Inuit perceptions of the same.

Maintaining the hope that even modern Westerners may acquire better and more discerning perceptions of the land, Lopez’s presents his own experiences of arctic landscapes in terms of a hunter’s engagement with the land. At the barren Pingok Island, he finds himself involved in the

old business [of] walking slowly over the land with an appreciation of its immediacy to the senses and in anticipation of what lies hidden in it. The eye alights suddenly on something bright in the grass – the chitinous shell of an insect. The nose tugs at a minute blossom for some trace of Arctic perfume. The hands turn over an odd bone, extrapolating, until the animal is discovered in the mind and seen to be moving in the land. One finds anomalous stones to puzzle over, and in footprints and broken spiderwebs the traces of irretrievable events.

... I squatted down wherever the evidence of animals was particularly strong amid the tundra’s polygon fractures. Where Canada geese had cropped grass at the edge of a freshwater pond; at the skull of a ringed seal carried hundreds of yards inland by ice, or scavengers; where grass had been flattened by a resting fox.

I saw in the sea face of a low bench of earth along the beach the glistening edge of an ice lens that underlay the tundra. The surface layer of plants and dirt overhung it like a brow-thatch of hair. I tried persistently but without success to sneak up on the

flocks of feeding geese. I lost and regained images of ptarmigan against the ground, because of their near-perfect camouflage. (*AD* 254)

The narrator's mode of observation here has a sense of immediacy and anticipation associated with the hunt. It is at one and the same time a highly visually perceptive form of observation and an experience that engages his entire sensory system. To the indiscriminate eye, the part of Pingok Island here described is an environment of non-presence. What Lopez actually presents is the shell of an insect, a broken spiderweb, the bone of an animal; all examples of life passed away. Then some cropped and flattened grass and a few footprints as evidence of life that has passed by and moved on. Only by coupling this sensory information with experience-based knowledge of animals does Lopez manage to make this barren island emerge in *Arctic Dreams* as a land of live creatures. This act of interpretation reveals his skill in discerning and to some extent deciphering the zoosemiotic signs of the landscape. It is an act clearly driven by his intimate knowledge of animal lives and his desire to read this landscape in terms of an extended text combining signs of past and present animal, material, and human activities.⁴³ Lopez's interpretative vision is in this passage expressive of the native hunter's vision. It involves an ecological and aesthetic reading of the environment. The fact that the ptarmigan's camouflage throws him off his visual trace, and flocks of geese flee at his approach, may nonetheless suggest that Lopez is a hunter emerging, and far from fully trained.

Of course, Lopez is no hunter in the proper sense of the word, but a Western visitor gradually learning from his Inuit companions a mode of attentiveness to the lifeworlds of wild animals. The direction of this learning process is always clear; Lopez is careful to avoid inscribing into his text yet another Western presumption of superior understanding of the arctic wilderness and its hunting cultures. Accordingly, he signals his inferior skills as a hunter both in passages like the above, and in the direct assertion that "I am aware that I miss much of what I pass, for lack of acuity in my senses, lack of discrimination, and my general unfamiliarity" (*AD* 260).

Lopez's modesty even spans species divisions. In the "Tôrnârssuk" chapter we find him looking for ringed seals with marine scientists in a small open boat in the Chukchi Sea.

⁴³ As noted in Chapter Two, Lopez finds the Western history of Pingok Island to "comprise few events" (*AD* 261). Most of the marks left on the land by Westerners attest their attempts to lay claim to and/or control its seemingly barren landscapes.

The weather conditions are difficult, and the men are in a state of heightened sensory alertness and non-verbal communication associated with the hunt: “If one of us tensed, the others felt it and were alert. Always we were *hunting*” (AD 78). Yet for all their efforts, aids (boat, field glasses) and knowledge that these are perfect conditions, their dulled sensory acuity and lack of experience with this particular environment prove a serious hindrance to these modern hunters. They can discover no seals. Not until they come upon a polar bear. Regarding them with irritation and hissing at their interference on his hunting grounds, this “young and successful hunter, at home in his home ... had found the seals” (AD 80). The polar bear is here presented as beyond doubt the better hunter, and perfectly adapted to an environment which Lopez and his companions not only have problems reading, but against which they must take active measures to protect themselves.

This episode reveals the lack of acuity that Lopez suffers – the lack of a ‘native eye’ or a ‘native ear’ – to be a potential cause of danger. It parallels a similar scene in which Lopez finds himself at the floe edge off Admiralty Inlet fearing a walrus attack: “I have no ear educated ... to anticipate the arrival of the walrus. A native ear. Experience. I walk here susceptible as any traveler to the unknown” (AD 125). Thus Lopez leads us to understand that the danger to Westerners engaged in battle with the elements of the Arctic, whether for the geographical discovery or the extraction of riches, resides not only in the physical qualities of this adversary. Although arctic natural environments are by nature prone to sudden, violent, and sometimes lethal shifts in ice and weather conditions, for modern Westerners the danger of this relationship lies primarily with our own perceptual limitations and our general ignorance of the land and the life it harbors.

Hunting as communication

The perception of the indigenous hunter is important to the philosophical project of *Arctic Dreams* precisely because its aim is to gain insights about the lifeworlds of arctic animals. The vision of ‘the native eye’ represents in this text a vision from within the environment, and one that acknowledges among the networks of relationships that constitute the environment *also* the hunter’s relationship with the hunted animal.

The focus of the hunter’s extended dialogue with the environment is with the animal prey. The idea of an interpersonal dialogue between human and animal is not, however, limited to the context of hunting. Nor is it completely absent from contemporary Western

thinking about animals. In *The Animal That Therefore I Am*, Jacques Derrida reflects upon how animals' non-linguistic forms of communication have enabled thinkers throughout the Western cultural tradition to imagine language as the proof of a fundamental qualitative difference between the human and the animal. Aiming to bridge the 'abyss' our culture has created between the human and the animal, Derrida argues that there are ways of understanding the logic of communication – of event and response – that does not block the animal from participation (*Animal* 126). Similarly, in her work on human relationships with companion animals, Donna Haraway finds that what is defining for this kind of interspecies event-response dialogue is “how animals [including the human animal] engage *one another's gaze responsively*” (*Species* 22). Implicit in the response lies not only the recognition of the other, but also an interest, a curiosity about how the world is perceived by the other, about what triggers and determines its response (Haraway *Species* 22).

Haraway's theories focus on human communication with a certain class of domesticated animals. John Berger believes the gaze of the truly wild animal to initiate a similar human response. In meeting the animal's look, Berger claims, the human becomes aware of the animal's “secrets” (260). While Berger refrains from explaining how one should interpret these ‘secrets’, I find his use of this term to be related to Lopez's use of the word ‘mystery’ in relation to what sensory experiences, intentions and motivations guide animal lives. Berger also develops the implications of Ortega's interpretations of the hunt by arguing that the look of the wild animal has the added effect of grounding the human in the environment: “when he is *being seen* by the animal, he is being seen as his surroundings are seen by him. His recognition of this is what makes the look of the animal familiar” (Berger 260). In meeting the wild animal's gaze, in other words, the human becomes part of the social-ecological relationships of the environment. As emphasized by Reed, these are relationships that confirm the social nature of awareness and precede interpretation. In a socio-ecological perception of nature, the look of the animal makes the human instinctively recognize it as a social being with whom he/she shares the environment. This, we remember, was precisely Thoreau's experience in the forests of Concord.

Arctic Dreams is scattered with examples of how Lopez's encounters with animals engender his curiosity and responsivity towards them. The first animal to come into focus in this way is a little lemming:

Whenever I met a collared lemming on a summer day and took its stare I would think: Here is a tough animal. Here is a valuable life. In a heedless moment, years

from now, will I remember more machinery than mind? If it could tell me of its will to survive, would I think of biochemistry, or would I think of the analogous human desire? If it could speak of the time since the retreat of the ice, would I have the patience to listen? (*AD* 36)

The lemming is introduced in a part of the text that highlights the radical otherness, the fluctuating nature, and the vulnerability of arctic ecosystems. In a harsh environment like this, survival is the ultimate sign of success, “a kind of heroism (of sufficiency) we seldom consider” (Paul 99). Lopez writes with great respect of this “year-round resident[] of the local tundra communit[y],” who has migrated so far and so courageously to reach this distant region of the world, and who has the strength to survive the Arctic winter “in a subnivean landscape, a dark, cool, humid world of quiet tunnels and windless corridors” (*AD* 35). His interest and engagement with this animal is reflected in the way he ‘takes its stare’, rather than just observing it, thereby acknowledging the intrinsic worth of this particular little lemming.

The excerpt above exemplifies the manner in which the assumption of a hunter’s heightened state of awareness, here contextualized through a concrete meeting with a lemming, enables this representative of modern man to reflect upon his own culture’s relationship with animals. In this passage Lopez clearly questions the mind/matter dualism of Western philosophy, and recognizes the way this dualism has efficiently blocked the very possibility of communication by assigning animals the status of ‘machinery’ or ‘matter’.

Lopez does not so much ascribe human emotions or intentions to the lemming as recognize the inevitable fact of his own human perspective, and of the way this animal’s *Umwelt* remains beyond conception. Yet the inescapability of the human perspective does not by necessity lead to either anthropomorphism or anthropocentrism. Although the lemming’s point of view remains unknown to us, it is still possible – from within a position of relationality – to consider what is relevant to *its* life. What Lopez here questions is whether or not a dialogical engagement with animals is still possible and whether or not modern humans would – after this long separation – even be interested in engaging in it. The form of Lopez’s engagement with the lemming involves critical introspection and differs significantly from that of the indigenous hunter. We can nevertheless read this engagement to be what enables Lopez to recognize both the existence of the lifeworld of the lemming, and the existence of cultural preconceptions that generally function to block our acknowledgement of such animal lifeworlds. As a consequence of Lopez’s appreciation of the lifeworld and challenges of the lemming, this seemingly insignificant little animal is in *Arctic Dreams* allowed to “strike[] a

posture” on the tundra “that urges you not to trifle” (AD 35). The posture expresses the skill and courage by which the lemming prevails in this harsh environment; what Lopez finds to be its quite substantial “quality of heart” (AD 35).

Aiming to amend our relationship with animals as well as with the land itself, Lopez highlights the state of alertness towards the environment and engagement with animal others associated with the hunt, while downplaying the fact that the ultimate goal of the hunt is to kill the animal.

To hunt means to have the land around you like clothing. To engage in a wordless dialogue with it, one so absorbing that you cease to talk with your human companions. It means to release yourself from rational images of what something ‘means’ and to be concerned only that it ‘is.’ And then to recognize that things exist only insofar as they can be related to other things. These relationships – fresh drops of moisture on top of rocks at a river crossing and a raven’s distant voice – become patterns. The patterns are always in motion. Suddenly the pattern – which includes physical hunger, a memory of your family, and memories of the valley you are walking through, these particular plants and smells – takes in the caribou. There is a caribou standing in front of you. The release of the arrow or bullet is like a word spoken out loud. It occurs at the periphery of your concentration. (AD 199-200)

In Lopez’s presentation, hunting becomes a way for the human to engage in a “wordless dialogue” with the land that constitutes an embodied *responsiveness* toward it rather than an abstractive interpretation of it; a dialogue that opens up a range of sensory input more complex and absorbing than linguistic communication. By claiming that in hunting you wear the land ‘like clothing,’ Lopez indicates this activity to activate an *Umwelt* perspective in which you find the world enfolding you “like a garment” through the perceptions of the senses (Uexküll “Introduction” 107). In this sense the embodied responsiveness of the hunt becomes another form of zoosemiotic communication. The passage hints that this communication exists beyond, and is hindered rather than aided by, rational conceptualizations. Once the conceptual filtering or ‘rationalization of meaning’ is abandoned, these more immediate forms of communication can unfold.

In allowing the hunter to be concerned not with “rational images of what something ‘means’” but “only that it ‘is’” (AD 200), the dialogue induced in the hunt can be interpreted to express the socio-ecological nature of being, acknowledged without interpretation. As this social awareness of the natural world is activated, the hunter becomes aware of the myriad of complex and inter-connective relationships that exist in the land. The quotation above expresses how these dynamic social-ecological relationships become part of larger

overarching relational patterns in which the hunter partakes with his entire being, and which encompass mind *and* body, past and present experience. Lopez's 'patterns' may here be interpreted as those lines of relationship that constitute the all-encompassing rhizome of the land, and that in Ingold's theorizations *is* the land. Because these relationship patterns are simultaneously ecological *and* social, they represent for the individual in question ecological dependencies as well as patterns of meaningful social engagement with environmental others. Both kinds of patterns are dynamic and in constant processes of change.

Lopez's knowledge of philosophies of the hunt in northern hunter cultures is evidenced in *Of Wolves and Men* as well as in *Arctic Dreams*.⁴⁴ In the context of hunting, the act of shooting, like the act of speaking, becomes an act of intercourse between human and animal, and emphasizes the dialogic relationship implicit in the hunt. It has the qualities of a skillful and intuitive response, in the present moment, to the animal as part of the extended rhizomatic network in and through which both animal and hunter have their existence. Within this context, the hunting tool becomes less a means of force and control than a means by which to gauge the state of relationship with an animal adversary endowed with volition and a sense of purpose. In this sense we can read the passage above as Lopez's poetic evocation of distinctly Inuit perceptions of the hunt, presented in the text to educate a Western audience of readers. As Lopez states in a footnote: "it was the gift rather than the death that was preeminent in the Eskimo view of hunting" (*AD* 191).

In the act of shooting, the hunter becomes part of an ongoing communication situation that recognizes and responds to the environmental other, but that ultimately partakes in overarching relational patterns. Expressed in the passage above from the point of view of the *human* hunter, this form of communicative interaction with the environment is one in which hunters of any biological species can be thought to engage. In this sense, Lopez's representation of the hunt makes manifest an Inuit relational understanding of the natural world that his earlier portrayals of large arctic mammals have hinted towards. Thus, whereas much of the information about arctic ecosystems and their animals presented in *Arctic Dreams* originates within the modern sciences, the representation of Lopez's direct experiences of the environment has its foundation in Inuit ontologies. Although these

⁴⁴ In *Of Wolves and Men*, Lopez comments on how in Naskapi culture "the bullet or arrow loosed [is] but a symbol of the communication between hunter and hunted" (90).

ontologies are less explicitly referred to than are the recent scientific models of the natural environment on which the text draws, *Arctic Dreams* nevertheless tacitly affirms the Inuit worldview to be a more viable alternative to our own. As we shall see in the chapters that follow, the Inuit sense of relationality is to Lopez a valuable alternative also to the Romantic relational worldview.

Lopez's text thus promotes an Inuit relational conception of the world. Yet the fact that it so consistently shifts the focus of the hunt away from the actual killing and utilization of the animal signals that Lopez is a cultural observer rather than an active participant in Inuit culture. For all his sympathy with his Inuit hunter companions and their mode of engagement with the natural world, Lopez ends his text by reaffirming his disgust at the sight of animals killed (*AD* 408-9). Reported in a cultural setting in which the killed animal is understood to confirm the continuation of life, its "blood in the snow ... a sign of life going on, of other life going on" (*AD* 409), Lopez's revulsion is paradoxical. It indicates the extent to which Lopez remains a modern Westerner to whom hunting is associated with a particularly violent (and unnecessary) form of sport. As the text repeatedly shows, this form of sport is one that exploits human supremacy over the natural world, and that throughout modern history has had tragic effects not merely on animal individuals, but on the animal populations of the region.

Inuit animals or polar bear persons? Possible pitfalls of Lopez's environmentalism

In *Arctic Dreams* traditional Inuit cultures represent human cultures in which relationships with animals determine the ways of life. The fauna is depended on for all aspects of survival: for food, clothing, heating, hunting tools and artifacts. Animals are recognized to offer humans valuable guidance in adversity, and are assigned religious significance. Whereas Lopez is careful not to idealize the Inuit as 'innocent' people living in an "idealized harmony" with nature, he nonetheless characterizes them as "a people, *some of them*, still close to the earth, maintaining the rudiments of an ancient philosophy of accommodation with it that we have abandoned" (*AD* 201, 40, italics mine).⁴⁵ As we have seen, this 'philosophy of

⁴⁵ Also Neil W. Browne comments on how "Lopez counters the unexamined romanticization of native cultures" (162).

accommodation' – or *dwelling* – differs fundamentally from modern Cartesianism. According to Lopez, we can gain from this philosophy important insights about how our basic existence as human beings is tied to the existence of animals, and to relations with animals that in the Arctic “ha[ve] meant human survival for the past 40,000 years” (“Renegotiating” 384).

In stating that “Eskimos ... sometimes see themselves as still not quite separate from the animal world,” Lopez seems to subscribe to the idea in traditional anthropology that hunter-gatherers occupy a special position in relation to the natural world (*AD* 39). Inuit hunters who maintain traditional forms of interacting with the natural environment are furthermore presented in *Arctic Dreams* as representatives of an ancient form of knowledge brought forward into the present. Lopez describes this knowledge in terms of a biological or “species” wisdom developed through “an intimacy with the earth” that modern humans have lost (*AD* 40). This loss makes it impossible for us to make truly enlightened decisions regarding our various planned interventions in the arctic wilderness. In line with the salvage paradigm characteristic of much anthropological work on the indigenous cultures of the North American Arctic (including the narratives of Knud Rasmussen, Vilhjalmur Stefansson and Roald Amundsen), Lopez fears that this valuable knowledge is bound to become subsumed by advancing modern knowledge practices and technological developments. Accordingly, Lopez finds the element at greatest risk in the arctic ecosystem to be “the coherent vision of an indigenous people. We have no alternative, long-lived narrative to theirs, no story of human relationships with that landscape independent of Western science and any desire to control and possess” (*AD* 11). From Lopez’s ecological protectionist point of view, the fear of losing access to this alternative way of relating to the land is expressive of the fear of further exploitation of the region. Implicit in this fear lies an act of recognition of the value of cultural perspectives other than our own.

Within a Western discourse still inclined to dualistic ways of thinking, Lopez’s way of endorsing the biological ‘species wisdom’ of the Inuit and their intimate relationship with the natural world is not entirely unproblematic. From the perspective of researches and critics used to thinking of humans and culture as somehow separate from animals and nature, *Arctic Dreams* seems involved in a precarious balancing act between idealizing and naturalizing the indigenous peoples of the Arctic.

Both Tim Ingold and Bruno Latour have brought to our attention the way in which modern Western culture has tended to regard indigenous (or ‘primitive’) cultures to be intricately part of nature in a way our own is not (Latour *Modern* 97-103). Inherent in the

modern idea of control and possession of nature lies the presumption that it is possible for humans to willfully intervene or *refrain from* intervening in natural processes (Ingold *Perception* 63). According to this line of thinking, “[t]he further men become removed from animals, . . . the more their effect on nature assumes the character of premeditated, planned action directed towards definite ends known in advance” (Engels 290; cf. Ingold *Perception* 63). The implication when it comes to hunter-gatherers is easily grasped. Because their activities do not (generally or radically) intervene in natural processes, they are understood “never to have extricated [themselves] from nature in the first place” (Ingold "Hunting" 48). And as Ingold points out, despite the fact that anthropologists have moved away from the nineteenth-century tendency to describe hunter-gatherers as “liv[ing] little better than animals,” the hunter-gatherers’ unobtrusive relationship with the natural world causes the notion to linger that they are somehow closer not only to the natural environment but also to the animal state of being than modern Western humans (*Perception* 62). Their lives in allegedly still pristine nature are intermeshed with those of animals that, in contrast to the animals of modern cultures, are wild and beyond their control. Accordingly, hunter-gatherers have in traditional anthropological literature been depicted much like animals in Western conceptions of hunting: “as though engaged, *like other animal predators*, in the continual pursuit of fugitive prey, locked in a struggle for existence which – on account of the poverty of their technology – is not yet won” (Ingold *Perception* 62, italics mine).

When coupled with his valorization of Inuit perspectives on the natural world, the environmental thrust of Lopez’s writing appears at times to get him entangled in naturalizing representations of the Inuit. If we, for example, forget for a moment his aspirations towards a more indigenous understanding of the wolf, his statement in *Of Wolves and Men* that “[t]he Eskimo . . . probably sees in a way that is more analogous to the way the wolf sees than Western man’s way of seeing is” (87) could easily be interpreted as a highly questionable reduction of the Inuit to the animal. The several comparisons Lopez makes in *Arctic Dreams* between the Inuit hunter and the polar bear could no doubt yield similar interpretations.

The human hunter is in *Arctic Dreams* presented as the only challenger to the supremacy of the (other) great arctic predator, the polar bear. The text posits two features connecting the Inuit and the polar bear: their success in adapting to the harsh arctic environment, and their success as predators. Having already traced their parallel histories in the Arctic, Lopez places the Inuit and the polar bear at the same trophic level and in overlapping niches of the ecosystem:

The prey of both ... is the ringed seal. Their hunting methods ... are strikingly similar. ... Some groups of Eskimo move off the land and onto the sea ice in winter, like bears. ... Both make their living at the edge of the sea ice and along the shore. And both live with the threat of starvation if the seal disappear. (AD 108)

For both humans and bears, predatory success is key to successful adaptation to this climatically harsh region. This, Lopez argues, has caused “[a]nthropologists and biologists [to] turn to the same words to describe each” (AD 108). Due to their endurance and ingenuity in responding to a challenging environment, both are seen as “‘tough,’ ‘practical,’ ‘tenacious,’ ‘inventive,’ ‘a one-time learner’” (AD 108-09).

Lopez persistently portrays the relationship between Inuit hunters and polar bears as a relationship of the hunt. Significantly, this particular hunt may proceed in both directions, and the human find himself alternately predator and prey. Polar bears, Lopez writes, “approach[] men as though they were a kind of resting seal. Some of these encounters must have ended with a pounce, a single blow, a man dead. But some of them were finished with a seal harpoon or a knife, a bear dead of fatal miscalculation” (AD 109). Both human and animal is with the other up against an enemy that uses the full range of its abilities in the fight for survival, and the outcome of their encounter is never given.

In Lopez’s representation, the intimate and dramatic sense of interconnectedness the Inuit experience with their environment is double-edged. The hunter’s relationship with the polar bear combines the vestigial fear of being hunted with the joy of having survived the confrontation with such a powerful opponent. This is why Lopez asserts that to the Inuit,

[t]o encounter the bear, to meet it with your whole life, was to grapple with something personal. ... To walk away was to be alive, utterly. To be assured of your own life, the life of your kind, in a harsh land where life took insight and patience and humor. It was to touch the bear. It was a gift from the bear. (AD 110)

The successful confrontation with the polar bear affirms the hunter’s place in the world, and is in this sense personal. The confrontation is personal also because it involves an animal granted personhood, existing on the same ontological level and equal in cunning and skill to the human hunter. Like the human person, this animal person holds the power to end or strengthen the continuation of his opponent’s life. To Lopez, this conception of the polar bear explains why the Polar Inuit named this animal “*Tôrnârssuk*, ... ‘the one who gives power’” (AD 110). The ontological leveling between the human and the animal enacted in the hunt produces precisely that sense of belonging to the natural world that also Western hunters seek,

but have difficulties achieving because killing is in the Western tradition generally a violent enactment of human superiority.

Lopez's comparison between the Inuit and the polar bear may be perceived as a denigration or naturalization of the Inuit to the level of animal. However, if we manage to imagine this human-animal relationship beyond a Western dualistic perspective, there is no need to read this ontological leveling as a reduction of the human. Indeed, it is only within the framework of the nature-culture dualism that it makes sense to engage in discussions of whether or not Lopez is guilty of naturalizing the Inuit. To the extent that we do so, we should have in mind that Lopez's aim, in texts like *Arctic Dreams* and *Of Wolves and Men*, is precisely to challenge and offer alternatives to this dualism. In terms of the *dwelling* perspective Lopez in these two texts advances (although less obviously so in the latter than in the former), seeing like a wolf or an 'Eskimo' would be a different and more informed way of relating to the natural world, and one that expands on what counts as ways of knowing.

Whereas the ontological leveling of the human and the animal is in itself one of the aims of Lopez's search for a more viable (natural) philosophy, his extensive comparison in *Arctic Dreams* between the Inuit and the polar bear also serves the advancement of the idea of zoosemiotic communication. To semioticians like Maran, similarities in adaptation are the expression of similarities in basic needs and dispositions of living beings placed under the constraint of the same physical forces. Ultimately such similarities in adaptation allow zoosemiotic forms of communicative relationships between these living beings (Maran 84). Naming *imitation* as another form of zoosemiotic communication, Maran allows us to interpret the Inuit's long-term observation and ability to learn from arctic animals as other forms of such non-verbal communication. In *Arctic Dreams*, similarities in adaptation and acts of imitation expand the zoosemiotic dialogue beyond the direct engagement of the encounter between hunter and hunted, and express the way in which these non-verbal acts of communication are in significant ways also a form of dialogue with the land.

Less concerned with these social-ecological aspects of *Arctic Dreams*, literary scholar Renée Hulan has criticized the "privileged position" hunting enjoys in *Arctic Dreams* and the way it works to "satisfy[] the southern audience's craving for stories of physical survival" (154). However, I do not think that Lopez can be accused of activating any masculinist survival theme in this text. When we compare Lopez's depictions of the hunt to those found in former exploration narratives (like that of Parry), they seem to counter rather than to perpetuate the arctic masculinist narrative of survival. The text as a whole engages with

questions not of the immediate survival of the (masculine, heroic) individual, but of human survival in a more general and long-term perspective. Similarly, I would argue that to interpret *Arctic Dreams* as a text that reduces the lives of indigenous peoples to a mere “grasping survival” (Hulan 154) disregards both the context and the tone of Lopez’s narrative. The valorization of the Inuit’s long-term survival in the Arctic must in this environmental text be read against the implicit threat of the destruction of arctic ecosystems. Rather than erasing the epistemological and ontological importance of northern indigenous cultures, Lopez praises these cultures for the alternatives they offer to modern Western philosophy. Hunting is in *Arctic Dreams* not primarily a means of survival, but a way of approaching the world.

Hulan also objects to the way *Arctic Dreams* “denies the [indigenous] people’s voice and fixes them within the romantic ideal of the hunting society currently challenged by feminist anthropologists” (154). She perceptively notes how Lopez “tends to ascribe thoughts and feelings” to the indigenous hunters he travels with, rather than allowing them access to self-representation (Hulan 153). This causes him to “collapse[] different societies into a single ‘Native perspective’” (Hulan 155). In comparison with the several cited statements of Western field biologists, the absence in *Arctic Dreams* of individual Inuit voices is provocative. One could, of course, attempt to explain Lopez’s dissimilar treatment of Western and Inuit informants with the fact that while the Western scientific paradigm demands all knowledge to be referenced to the person with whom that knowledge originated, Inuit oral traditions do not have this individualistic focus (or restraint) on the sharing of knowledge. Indeed, the more open exchange of information involved in Inuit storytelling is one of the reasons why Lopez promotes this Inuit ‘method’ of knowledge production. Yet the fact that Lopez throughout the text translates rather than conveys the Inuit’s own cultural perceptions of their home environment opens his text up to criticisms of appropriation. The perspective of the narrator remains undeniably a modern Western one, and to the extent that other perspectives are not clearly identified, referenced, or voiced by those with whom these perspectives originate, they will to some extent seem inappropriately assumed. At the same time, however, Lopez’s entire text works to activate a dialogic and critical interaction of different forms of enframing the world precisely by juxtaposing multiple perceptual perspectives. These also include different animals’ *Umwelt* points of view, and are generally evoked as alternative frames of perception to be indirectly or imaginatively, but never fully, known.

In defense of Lopez's representation of the Inuit, it should be noted that his use of the collective term 'Eskimo' and his tendencies to present us with the essence of a variety of Inuit cosmologies are balanced by the careful ethnographic description of a variety of different Inuit cultures and their historical development. Indeed, Lopez at one point criticizes nineteenth-century European explorers for failing to recognize that the Inuit cultures they encountered were also dynamic entities, responding to alterations in their environment as well as to the exposure to cultural impulses from beyond their home ranges (*AD* 382).

Hulan's critique of the representation of the Inuit in *Arctic Dreams* is to me most apposite in pointing out how the text "continues the tradition of viewing hunting societies as male-dominated by ignoring the role, even the existence, of women" (Hulan 154). Lopez signals his awareness of this serious lacuna in his own and other people's depictions of Inuit cultures in describing the "lack of comprehension about the role women played in hunting" to be one of the "tragic lapses in the study of aboriginal hunting peoples" (*AD* 199). "In no hunting society could a man hunt successfully alone" (*AD* 199). The fact nonetheless remains that women are indeed scarce in Lopez's narrative. We hear of a few female scientists, but on the role of women in Inuit hunting traditions Lopez offers only a few lines of his own reflections on the way in which the Inuit hunter "depended on his wife" (*AD* 199).

Lopez is known (at least in the U.S.) as a writer with a respectful attitude toward the lands in which he travels and the people and animals he meets. Although he in *Arctic Dreams* attempts to keep his balance as he selects and re-presents valuable insights about arctic animals and their environments from various cultures and forms of knowledge production, the narrator sometimes treads uneasily, sometimes slips. However, the text's repeated assertions that the Inuit's intimate relationship with animals may provide insights inestimable to the reworking (or renouncement) of the Cartesianism that afflicts these relationships in our own culture ought, in my opinion, to soften allegations against Lopez's treatment of the indigenous peoples of the Arctic. The Inuit point of view is in *Arctic Dreams* understood to be closer to the animal *by relationship* and *engagement*, not by nature. It is acknowledged as superior to Lopez's modern Western point of view precisely in perceiving the natural world in a manner that is partly inaccessible to him. That is why Lopez, at the end of the introductory "Arktikós" – and in a situation in which a metaphorical wind of change from the south (still) blows only very slightly on the Tununiarusirmiut hunters' camp he visits – emphasizes that the deeper understanding he seeks can be reached only *on* the land and "in the presence of well-chosen companions" such as these (*AD* 40).

Arctic Dreams postulates that traditional hunter-gatherers occupy a special position in relation to the natural world. It does so, however, to open up a dialogue between a somewhat essentialized Inuit ‘philosophy of accommodation’ (or *dwelling*) and a similarly stereotyped modern Western ‘philosophy of control and exploitation.’ Lopez’s seemingly Romantic valorization of the Inuit does not serve the investigation of some original and innocent state of humanity (which would implicitly establish a hierarchical difference between the ‘civilized’ and the ‘primitive’ human). What it serves is Lopez’s careful consideration and redemption of the animal.

The significance of hunting

Arctic Dreams presents hunting as an activity of heightened phenomenological and aesthetic experience of the land through which alternative ways of relating to the natural world can be explored. In hunting, the hunter acknowledges the agency of animals and pursues some level of engagement with the animal prey. Seeking signs of the animals’ whereabouts, the hunter reads the landscape as a text combining physical and zoosemiotic signs. The dualistic framework involved in Western philosophies of the hunt nevertheless renders this tradition an unsuitable starting point for Lopez’s search for a more viable ‘natural philosophy’. Accordingly, Lopez advances an idea of hunting based on a radically relational Inuit ontology that highlights the socio-ecological nature of the environment. The Inuit philosophy of hunting expands the hunter’s relationship with the landscape of the hunt away from a mere reading of the environment as text towards an active dialogic interaction with the animate and inanimate constituents of this environment. This dialogic interaction involves the acknowledgment of the intents and purposes of animal persons and the existence of their animal *Umwelten*. By coupling Western ideas of hunting, which allows for readings of the natural environment in terms of texts, with Inuit ideas of hunting, which acknowledge the existence of animal lifeworlds within the environment, *Arctic Dreams* can evoke a sense of relationship that spans the borders between the human and the animal, nature and culture. Thus in *Arctic Dreams* hunting represents not merely a means of sustenance, but also a materially grounded aesthetics. By coupling the indigenous hunter’s mode of perception with those of the scientist and the poet, *Arctic Dreams* emerges as modern, well-informed, and environmentally sensitive text generating a distinctly social understanding of arctic natural environments.

Chapter Five: The idea of the Arctic transformed: from empty space to civilization

As we saw in the previous chapter, the indigenous hunter's vision is in *Arctic Dreams* what enables Lopez to read the zoosemiotic signs of the landscapes he travels. Through this vision Lopez experiences a heightened sensitivity towards the socio-ecological relationships of the natural environment. This chapter further investigates the text's presentation of animals' interactions with other animals and with the landscapes to which they belong. Focusing on Lopez's overt reading and contemplation on zoosemiotic communicative intercourse, it will bring out the hidden, or not easily perceptible, relationship patterns and animal *Umwelten* that the text presents as part of the land. My reading will demonstrate how Lopez through references to *Umweltlehre* and Inuit ontologies translates some of the signs of the landscape text into imagined animal points of view on the natural environment.

With a multitude of animal points of view come not only a multitude of lifeworlds, but also the relativity of time and space, all of which are included in Lopez's vision of the arctic natural environment. Thus in reworking what must be understood as a distinctly modern Western cultural conception of animals, *Arctic Dreams* additionally alters our conception of space and its association with time.

In order to facilitate the reading of how Lopez's representations of animal lifeworlds and animal-environment relationships challenge Western notions of spatial perception, the present chapter begins by introducing a few alternative conceptions of space, some of which have their basis in studies of Inuit and other hunter-gatherer cultures. My reading of *Arctic Dreams* will utilize Ingold's theorization of the *wayfarer's* mode of existence and British social scientist and geographer Doreen Massey's radically relational theory of space. Both present new and challenging approaches to Western ideas of space (outlined in Chapter One). However, whereas Ingold wishes to abandon the very concept of space, Massey's retains and reworks this concept in a manner that clarifies the nature of its challenge to traditional conceptualizations of space. This seems to correspond well with Lopez's representation of arctic landscapes.

In the current chapter we will see how Lopez's focus on animals and animal-environment relationships in *Arctic Dreams* challenges traditional conceptions of the Arctic as empty, static space, and turns arctic landscapes into distinctly social and lively spaces with

their own intrinsic forms of order. In a text that has already enacted an ontological leveling of humans and animals, the conception of space as a heterogeneous and lively coevalness of individual histories allows Lopez to pronounce the natural environment of the Arctic to be not a wasteland but a civilization.

Traveling across space or *wayfaring* through the land

The traditionally semi-nomadic Inuit cultures of the Arctic harbor conceptions of space different from our own Western ones. In *Playing Dead: A Contemplation Concerning the Arctic*, Rudy Wiebe explains how the Inuit come to have a linear rather than an areal conception of space:

first, an areal thing changes dimension and becomes linear when it moves; second, any area without easily observable limits ... is automatically classified as long and narrow, that is, as linear also. In order to live a human being must move; to live in the Arctic a human being must, generally speaking, move quite a lot to acquire enough food. Therefore in order to live he/she must become a linear dimension in a linear space. (52)

In order to live, in other words, the Inuit must be a moving, linear being, not a stationary point in space. Even a moving person, however, only becomes linear if a time dimension is added to the perception of his/her movements. Once this time dimension is included – or, as in Inuit cultures, regarded as implicit – the lives of all people take on this linear dimension. According to Wiebe, this ensures that “even in the largest space their moving lines must at some point intersect” (52). In a land seemingly empty, in other words, subjects are always interconnected through relationship networks whose time span extends beyond the experienced moment.

Tim Ingold interprets this life in constant movement along linear paths of travel as the life of the *wayfarer* (*Being* 149). The line of travel represents for the wayfarer “an ongoing process of growth and development, or self-renewal” (Ingold *Being* 150). We can thus read the wayfarers’ lines of travel through the land as expressions of the lines of growth of the all-encompassing rhizome that in Ingold’s animist theories *is* the land.⁴⁶

⁴⁶ In *Being Alive: Essays on Movement, Knowledge and Description*, Ingold distinguishes between the *network* and the *meshwork*. The *network* metaphor, he argues, “logically entails that the elements connected are distinguished from the lines of their connection,” that “each is turned in upon itself prior to its integration in the network” (Ingold *Being* 70). The concept of the *meshwork*, on the other hand,

Ingold recognizes that his conceptualization of the wayfarer and his/her relationship with the world is closely related to Massey's theories on space (Ingold *Being* 141-42). *For Space* represents Massey's expressed ambition to move away from a strictly Western cartographic conception of space as "a flat ... continuous surface," a "coherent closed system," and towards a more dynamic understanding of space (106). The only way to generate this more dynamic understanding is, according to Massey, to re-associate the dimension of time with space. Accordingly, she criticizes the structuralists for the way they "equate[] their a-temporal structures with space" and "rob the objects to which they refer of their inherent dynamism" (Massey 37, 38). Yet despite this, Massey does not simply dismiss the spatializations of the structuralists. Rather, she finds them useful for implying that space should be understood as that which holds and enables relationships (Massey 39).

Like Ingold, Massey regards space as "constituted through interactions," and therefore "always under construction" (9). Her argument, in *For Space*, is that the most sophisticated of modern sciences (like quantum physics), in collaboration with phenomenology and postmodern 'voices from the margins,' have now once and for all deconstructed the isolation of time from space and reinserted a variety of histories into space. As a result, the disruptive qualities of the relational nature of space can surface. Precisely through the juxtaposition of "previously unconnected narratives/temporalities," Massey claims, we can now understand space as open and always in the process of being made (39). However, recognizing this radical openness and dynamism involves a repositioning in relation to space: from imagining space as a (textualized) representation "*at which one looks*," toward imagining it as that from "*within*" which one partakes of "continuous and multiple processes of emergence" (Massey 54). In the context of the arctic landscapes portrayed in *Arctic Dreams*, this perspective *from within* space is part of the *dwelling perspective* to which Lopez's text aspires.

Like the animic environment of the northern hunter, Massey's space is not a "dead and fixed" backdrop of inert things, but rather a "lively" and "challenging" sphere of

rejects any distinction "between things and their relations," and implies that "[t]hings *are* their relations" (70). On the basis of this argument, Ingold argues that "[o]rganisms and persons ... are not so much nodes in a network as knots in a tissue of knots, whose constituent strands, as they become tied up with other strands, in other knots, comprise the meshwork" (Ingold *Being* 70). In line with Lopez's own evocation of the network metaphor (in the depiction of the fox of Pingok Island), I will in the following use the terms networks and nodes, but without ascribing to them the segregative aspects of Ingold's interpretation.

contemporaneous relationships and processes, practices and encounters (14). As she herself puts it, “[i]t is a world being made, through relations” (15). In this sense, Massey’s *space* resembles Pratt’s *contact zone*. It corresponds to the Inuit worldview in imagining space as a sphere of relationships, each of which takes the shape of a trajectory through time-space. These trajectories are “process[es] of change in a phenomenon,” and they include the stories of human beings *as well as* the stories of other ‘entities,’ living or non-living (Massey 12). “Thinking space as the sphere of a multiplicity of trajectories” thus allows Massey to weave the stories of a multiplicity of heterogeneous identities or entities into the conception of space (119). Traveling across or through space in this line of thinking becomes a traveling “*across trajectories*” of other “contemporaneous multiple becomings” (Massey 119, 120). Some of these are exemplified by the trajectories of human and other living *moving* beings. However, according to Massey’s own definition, the trajectories outlined in her theory first and foremost represent processes of development through time. This allows a tracing of trajectories also for sedentary animate and inanimate entities whose development lacks a second dimension in space (Massey 117-19). Accordingly, the development and/or history of all entities that constitute space are acknowledged as part of the “on-going” life of that space (Massey 119).

The time-space that emerges from this conceptualization is one of radical contemporaneity and heterogeneity. It is one in which there can be no ‘primitive’ indigenous cultures existing in ‘isolation’ in a time other than our own. Like the Inuit hunter’s perception of the environment, this perception of space opens up for encounters with what is recognizably *other* in a way that modern cartographic perceptions of space do not (Massey 121).

Massey uses predominantly human spaces, like cities and agricultural landscapes, to develop her concept of heterogeneous and lively space. Ingold, working with circumpolar hunting cultures, is more concerned with evoking an understanding of the natural environment that inhibits conceptualizations of it as abstract space. In order to achieve this, he, in *Being Alive: Essays on Movement, Knowledge and Description*, distinguishes between the *traveler* and the *wayfarer*. Whereas the traveler moves from one predetermined destination to another *across* space, the wayfarer moves *through* his concrete and sense-experienced (life)world (Ingold *Being* 150). Because the space across which the former travels is either perceived of as an abstract category or as an isomorphic surface, it can neither engage nor support him. As Ingold points out, “in transport, the traveller does not himself

move. Rather he is moved,” but “in a way that leave[s his] basic nature[] unaffected” (*Being* 150). Like so many explorers of the Arctic, the traveler relies for his life on provisions brought from home, *and* on the safe arrival at the site of destination. By conceptualizing the land as *space*, he is further able to *occupy* the sites he arrives at (Ingold *Being* 150). The traveller’s conceptualization of the land as space is thus very different in nature from that of the wayfarer. The very mode of life of the wayfarer implies that he can only briefly or recurrently inhabit places (Ingold *Being* 150). Like the processes of growth and development themselves, the constant movement through which these are generated cannot be halted for long.

On the basis of this argument, Ingold, unlike Massey and Wiebe, argues against the use of the term *space* on the charges that this is “the most abstract, the most empty” term we have for describing the world around us, “the most detached from the realities of life and experience” (*Being* 145). It allows a position of distance and control, and hides the fact that we live *in* the world; that precisely “wayfaring is our most fundamental mode of being in the world” (Ingold *Being* 152). In Ingold’s interpretation, then, the very conception of space blocks a true *dwelling* perspective.

Lopez’s *Arctic Dreams*, like Massey’s *For Space* and Ingold’s *Being Alive*, strives toward depictions of ‘the space of the world’ that do not fall prey to the traditional constraints of representation. One of the ways in which the text seeks to circumscribe these constraints is by advancing a form of environmental sensitivity associated with the indigenous hunter and his methodology, part of which is the discovery and elucidation of animal *Umwelten*. Accordingly, I wish to end this brief ‘foray’ through alternative theories on space by pointing out that also Uexküll’s *Umweltlehre*, by acknowledging the perspectives of animal subjects within lifeworlds different than our own, permits perceptions of space radically different from our own human one.

As both Geoffrey Winthrop-Young and Franklin Ginn have pointed out, in Uexküll’s *Umweltlehre* the conception of the *Umwelt* in terms of a ‘bubble’ marking the animal’s limits to perception exists in tension with the metaphor of the *Umwelt* as a web of relationships (Winthrop-Young 214). Whereas the bubble isolates, the web of relationships brings the animal subject “out beyond itself” and into “a wider mesh of existence” (Ginn 132). Included in this ‘wider mesh’ are the lives of other animal subjects, whose lifeworlds may be

incomprehensible but are nevertheless part of the vast relational field in which the individual animal subject has its existence.⁴⁷ *Umweltlehre* thus involves the idea that no subject is fundamentally autonomous; that the other is always a part of our being (Uexküll *Foray* 190-91; Ginn 132).

Lopez's references to *Umweltlehre* in this manner support and highlight the radically relational nature implicit in the worldview of northern indigenous hunter cultures, and function within the text to bridge scientific and indigenous forms of knowledge. My close reading of *Arctic Dreams* furthermore reveals how Lopez, much like Massey, relativizes the idea of time within the time-space of arctic landscapes. He does so precisely through the evocation of a variety of animal lifeworlds and their entanglements in the relational networks of these landscapes.

The arctic fox: relationship trajectories and the relativity of space

One of the points made by Lopez in his reflections on the nature of hunting is that the patterns of relationship between the different objects of the environment are “always in motion” (*AD* 200). According to the cosmology of northern indigenous hunters, the patterns are dynamic and shifting because they are what constitutes life. The same perspective is suggested by Lopez's insistence that only observations of animals within their natural environment can offer somewhat accurate accounts of these animals. As Lopez's depiction of the narwhal as specimen demonstrates, a one-sided focus on the perception and interpretation of *form* neglects the fact that vital insights about the nature of any particular animal can only be perceived through its behavior; its *movement* in and through its environment.

Arctic Dreams provides evocative descriptions of how both individual and large groups of animals move across the land. I have already commented on Lopez's detailed account of the way a polar bear walks, and on his reflections of how this animal navigates the

⁴⁷ In *A Foray Into the Worlds of Animals and Humans* Uexküll uses the spider, which he considers to be “fly-like” in terms of its success in catching the not yet encountered fly in its web, as an example of this wider relationality (160). The precision with which the spider tailors his web so that its threads are thin enough to be invisible to the fly, and so that the size, stickiness and resistance of its threads match exactly the body weight of the fly and will enclose it upon impact, is by Uexküll interpreted as a kind of intangible counterpointed form of communication.

landscapes of ice and water that constitute his home. These descriptions contribute to the vivid representation of an animal as familiar with movement in water as on land. But also the peregrinations of the less iconic arctic fox is given attention in Lopez's text:

I watch the fox now, traveling the ridge of the sand dune, the kinetic blur of its short legs. I have seen its (or another's) tracks at several places along the beach. I think of it traveling continuously over the island, catching a lemming here, finding part of a seal there, looking for a bird less formidable than a glaucous gull to challenge for its eggs. I envision the network of its trails as though it were a skein of dark lines over the island, anchored at slight elevations apparent to the eye at a distance because of their dense, rich greens or clusters of wildflowers. (*AD* 267)

The environment through which the fox travels in his search for food is the seemingly desolate Pingok Island. Its active relationship with the different objects of the environment leaves literal marks on the land. These are marks that Lopez, who strives to assume the vision of the 'native eye,' can recognize and to some extent translate into events in the life of the fox. Although the marks the fox has left on the land are physically manifest only in the form of partially visible trails of tracks, Lopez imagines these tracks to constitute a network of trails across the island. By so doing, he inscribes a linear dimension to the life of the fox. The linearity expresses the movement involved in the life-sustaining relationship between the fox and its environment, and indicates this animal's wayfaring mode of existence. The trajectories of trails left by the fox are 'anchored' at spots of vegetation where it is likely to find animal prey. These anchor spots thus function as nodal points in a rhizomatic network of relationship in which the linear trajectory of the fox intersects the trajectories of the animals it hunts. At these nodal points the life of one animal meets – and potentially subsumes – the life of the other. Although Lopez in the passage above does not specifically refer to the trajectories of the lives of other animals on the land, in the passage below he hints at their existence by shifting his focus away from the fox and onto a variety of other animals present in the landscape.

Once his human 'reading' of the sand dunes of Pingok Island has established this rhizomatic vision, Lopez moves the perspective of the passage first onto the imagined perspective of the fox, and then onto other animals.

Because the fox is built so much closer to the ground and is overall so much smaller than a human being, the island must be 'longer' in its mind than four and a half miles. And traveling as it does, trotting and then resting, trotting and then resting, and 'seeing' so much with its black nose – what is Pingok like for it? I wonder how any animal's understanding of the island changes over the year; and the difference in

its shape to a gyrfalcon, a wolf spider, or a bowhead echolocating along its seashore. What is the island to the loon, who lives on the water and in the air, stepping awkwardly ashore only at a concealed spot at the edge of a pond, where it nests? What of a bumblebee, which spends its evening deep in the corolla of a summer flower that makes its world 8°F warmer? What is the surface of the land like for a creature as small but as adroit as the short-tailed weasel? And how does the recollection of such space guide great travelers like the caribou and the polar bear on their journeys? (*AD* 267)

As Lopez's reflections move from the perspective of the fox to the perspectives of other animal subjects, it becomes evident that the length of these lines of fox movement across Pingok Island is relative. Not only is it relative to the human point of view, it is also relative to a multitude of animals that each has a different perceptual framing of the world and its own conception of space. As exemplified through the bumblebee, whose summer flower 'bubble' is warmer and does indeed seem more pleasant than those of its fellow arctic inhabitants, the radical physical differences between the different animals' lifeworlds are determined not only by the size and lifespan of the organism, but also by the natural objects that comprise this world. In this sense the extent in space of Pingok Island is radically relative, and Lopez's human assessment of its length and width just one of many.

The passage above opens up for a multitude of animal worlds all existing within the seemingly desolate Pingok Island. Yet relatively speaking, the number of animal lifeworlds within this particular arctic environment is low. And perhaps it is this relative simplicity of arctic ecosystems, coupled with the fact that within this peculiar environment animal tracks and traces may be left undisturbed for long periods of time, that allows a visualization of the interweaving networks of animal relationships at play here. The "bleak and forsaken," no doubt "alien," expanses of Pingok, which should have rendered this island the perfect location for controlled and abstract conceptions of space (*AD* 255; Bordo 77), become instead what *contests* and *reworks* such conceptions. Presenting a multiplicity of interactions between animals and environment within Pingok Island, Lopez's environmental model here reaches beyond traditional ecology by imagining the subjective experiences of the different animals. Echoing Uexküll's description of how an entity like the oak tree "plays an ever-changing role as object" (*Foray* 132) in the lifeworlds of different human and animal subjects (exemplified by the perspectives of the forester, the fox, the squirrel, and the ant, to name but a few), Lopez reveals the natural environment of Pingok Island to be a very different object within the lifeworlds of different animal subjects. Indeed, before Lopez in *Arctic Dreams* has finished his reflections upon the life harbored by the arctic natural environment, the parallels between

Uexküll's oak tree and the arctic natural environment as a different *objects* in the worlds of a range of different animal and human *subjects* are further strengthened. As elsewhere in the text, this multiplication of perspectives implies the situatedness and relativization of knowledge – and of space.

Muskoxen and snow geese: less perceptible relationship patterns

The fox's relationship with the physical objects of Pingok Island is partially visible through the itinerary of its tracks. However, *Arctic Dreams* also gives several examples of how less perceptible relation structures of the environment manifest themselves. In the text's extensive chapter on the muskox, any reductionist, food-chain system understanding of inter-species animal interaction is forestalled by Lopez's report of how

[o]bservers who have followed muskoxen on foot over the tundra ... often remark on the muskox's relationship with birds. Snow buntings and Lapland longspurs line their tundra nests with muskox wool. ... In their winter pawing, muskoxen expose food for Arctic hares and willow buds for ptarmigan. Arctic fox derive some unknown delight in their company. And in their wandering they stir up insects, which the birds feed upon. (*AD* 71-72)

The description reveals how muskoxen sustain and interconnect the niches of several other animal species. The presence of muskoxen can in this sense be envisioned to constitute nodal points in the tundra's network of relationships. Significantly, in Lopez's portrayal, these relationships include not merely sustenance bonds, but a variety of ways in which the muskoxen supports or make more pleasant the lives of its fellow beings, and in this way contributes to the wellbeing of the tundra's 'community of creatures.'

The material relationships between the ecological niche of the muskox and those of the other animal species mentioned have been thoroughly described by field biologists (who tend to work with the concept of the niche). The social aspect of muskox life, however, comprises relationships that are less easily translated into the language of science. To give us a sense of the sociality within the herd itself, Lopez includes anecdotes of the social and playful behavior of muskoxen of all ages from biologists and others working in the field: tales of calves playing "king of the mountain," of adults sliding down gravel hills on their rumps, and of whole herds "splashing and whirling" in delight in creeks and rivers (*AD* 60). In portraying the fight of the muskox bulls during the rut, Lopez relies on the categorization of

the phases of these fights identified by Canadian musk ox biologist David Gray, but adds his own emphasis on the “stylized” movements and “the aura of ritual” with which the bulls “engage each other” in such male encounters (*AD* 64). The life of the muskox is thus in *Arctic Dreams* not only social in the sense of gregarious, but also in ways that hint that there may be symbolic aspects to some of the behavior of these animals. Lopez’s description furthermore suggests that aesthetic aspects of ‘style’ may have a biological function.

Other aspects of muskox sociality and forms of communication are of a more evasive nature. A sense of their quality can nevertheless be evoked through close attention to the patterns of these animals’ movement. “Muskoxen,” writes Lopez, “are unique among ruminants in the amount of body contact they make” (*AD* 60). When faced with danger, they either “gallop away shoulder to shoulder, flank to flank ... mov[ing] as a single animal” (*AD* 60) or form a synchronous “close-contact, defensive formation [...] found in no other species” (*AD* 61). Like he did with the wolf packs in *Of Wolves and Men*, Lopez here describes the herds of muskoxen to be dynamic entities, whose changes in makeup are hard to predict:

Herds are neither disorganized nor rigidly organized. They are cohesive social arrangements existing in time. Biologists posit that they give some animals advantages in their feeding, breeding, and survival strategies, but they are not certain what these are.

Changes in the composition of muskox herds suggest that both individual animals and the aggregations themselves have ‘personalities.’ Mixed herds do not always consist of retiring females and younger animals being led by domineering males. Cows as well as bulls influence herd movement behavior, though the activity of herd bulls is frequently more evident. Herd leaders emerge not only at the approach of predators but whenever obstacles present themselves – a formidable river, a steep escarpment, or a crumbling cutbank. A knowledge of the other animals’ personalities, some actual experience with each other, may come into play in these situations and may be especially apparent in the creation of a defensive formation. (*AD* 62-63)

The muskox herd is clearly not an entity easily categorized and described. Like Lopez’s depiction of the wolf pack (in *Of Wolves and Men*, Section I) the passage emphasizes that without taking seriously the social aspect of this animal’s life we will not understand its herd behavior.

The social lives of arctic muskoxen are in *Arctic Dreams* presented to be as complex as are these animals’ physiological and metabolic adaptations to their environment. The idea that muskox herds, and not just individual muskoxen, have a ‘personality’ suggests the

importance of these social relationships in guiding or coordinating the individual animals' behavior. Lopez's description underscores that cohesive herd dynamics emerge in response to challenges of many kinds (not only the threat of predation), and depend on the individual animals' knowledge of each others' capabilities in different situations. In this sense the muskox herd is indeed a collective entity, but, like the wolf pack, it is an entity loosely defined and with an intricate social form of coherence our biological sciences cannot yet accurately account for. Also like the wolf pack in *Of Wolves and Men*, the muskox herd is an entity in which relationships between individuals do not accord with human gendered notions of (male) leadership, and for which one must consequently be careful not to "confuse the tools of human analysis with the actual behavior" of the animals (*Wolves* 34). As the success of the defensive formation indicate, their distinctive form of sociality is no less significant to the survival of the muskoxen than is its other forms of environmental adaptation (all of which testifies that in the two million years this animal has existed in its more or less current form, "a significant number [of them] have consistently chosen correctly" [*AD* 63]). Our lack of insight about the social aspects of muskox lives thus represents a serious lacuna in our knowledge of this animal. In *Arctic Dreams* Lopez indicates that an aesthetic awareness of the 'style' and patterns of these animals' movements can help us to recognize and perhaps begin to understand the social aspects of these relationships that lie beyond traditional forms of scientific description.

More evidently aesthetic than the social bonds of the muskox herd are the similarly unidentified patterns of relationship found in the movements of flocks of birds. In watching migratory snow geese in their southern home in the Klamath Basin, Lopez reports how flocks of five to ten thousand birds

rise from the fields like smoke in great, swirling currents, rising higher and spreading wider in the sky than one's field of vision can encompass. One fluid, recurved sweep of ten thousand of them passes through the spaces within another, counterflying flock; while beyond them lattice after lattice passes, like sliding Japanese walls, until in the whole sky you lose your depth of field and feel as though you are looking up from the floor of the ocean through shoals of fish. (*AD* 154)

The imagery of the passage emphasizes the beauty of the delicate and dynamic movements of this flock of birds. Through a series of similies – "rising smoke," "swirling currents," and "sliding Japanese walls" – Lopez creates an aestheticized multiple vision of the snow goose flock that spans the elements of air and water, the categories of nature and culture. The coordinated movement of the birds is here compared to similarly coordinated movements of

shoals of fish, and resounds with the text's earlier portrayals of pods of narwhals and herds of muskoxen to create an image of a series of worlds of animal life in abundance. Even to narwhals, we remember, Lopez ascribes an aesthetic "attractiveness" born of their "synchronous behavior" and their "strong, graceful movements in three dimensions, like gliding birds on an airless day" (*AD* 135, 134). Through this use of comparative, cross-referencing imagery, Lopez conveys a sense that similar aesthetically recognizable patterns of social-ecological relationship can be found throughout the animal landscapes of the Arctic.

Developing the connection between the social aspect of animal lives and the patterns of their movement hinted at in the depiction of muskox herds, Lopez provides a lyrical description of the behavior of the snow goose flock in order to evoke a sense of its social coherence. In watching the snow geese, Lopez reports how he is struck by

how each bird while it is a part of the flock seems part of something larger than itself. Another animal. Never did I see a single goose move to accommodate one that was landing, nor geese on the water ever disturbed by another taking off, no matter how closely bunched they seemed to be. I never saw two birds so much as brush wingtips in the air, though surely they must. They roll up into a headwind together in a seamless movement that brings thousands of them gently to the ground like falling leaves in but a few seconds. (*AD* 154-55)

The actions of the individual birds seem here seamlessly attuned to the life and movements of the flock as a whole. The biosemiotic forms of communication that occurs within the flock to coordinate the snow geese's movements remain imperceptible to the human viewer except as expressed through the aesthetically recognizable and pleasing patterns of their movement. Yet this communication is what allows the flock itself to emerge as a higher-level unity with an agency of its own. The fact that the unity of the flock is figured in terms of *another animal* signals that the relationship patterns governing the interactions between the individual birds should not be thought of in abstract or purely aesthetic terms. They are part of the individual birds as well as of the life of the higher order organism of the flock itself.

In the passage above, like elsewhere in his descriptions of snow geese, Lopez apparently makes use of a traditional nature writing trope in which "[t]he sight of birds in abundance" reliably evokes feelings of wonder and transcendence, along with visions of "the former earth in its wholeness" (Lyon 2). "The company of these birds," Lopez declares, makes it "easy to feel transcendent" (*AD* 155). But what *kind of* transcendence do these birds evoke? Whereas the earlier description of how the snow geese spread in the sky beyond the field of vision induced a sense of the Kantian sublime of magnitude, Lopez is in the passage

above struck by wonder of the incredible skill and the beauty of the birds' coordinated movements. I would therefore argue that even in these aesthetic descriptions of birds Lopez's text aligns itself more rigorously with the animism of northern indigenous hunters than with texts of the Transcendentalist tradition. The patterns of relationship within the flock of snow geese do not express an ultimate order of relationships originating in some transcendental rationality or mind. Rather, these patterns indicate imperceptible forms of inter-subjective communication that coordinate the movements of the individual birds, and in this sense establish the higher order unity of the flock. These relationship patterns not only bind the individual birds together. They also make of the whole something more than the sum of its parts, as the flock takes on a particular form of movement and agency. It is this agency that allows, among other things, the great feat of annual migration through which the snow goose sustains its life.

The seasonal migrations of the lesser snow geese are in *Arctic Dreams* illustrated by a map that shows the birds' fall migration routes from the nesting areas in northern Canada and on Wrangel Island to the scene of Lopez's encounter with them in their winter grounds at Tule Lake, California (*AD* 156). On this map the patterns of the birds' movements take the form of dark (arrowhead) lines across the land. In incorporating the map of the snow goose migration routes, Lopez employs a distinctly modern conception of space that conflicts with the tacitly implied indigenous understanding of the environment also at work in the text. The migration map, itself a down-scaled abstract spatialization of the North-American continent, seems to depict the migration of lesser snow geese precisely as travelers' trajectories *across* extensive space to a predetermined destination. From several identified points of departure, these itineraries all come together in that particular place to which Lopez has traveled to meet them: Thule Lake.

But whereas the map and its representations may be the result of a particularly modern mode of conceptualizing animal peregrinations, the migrations themselves are not. To Lopez, the snow geese represent animal life still not "constrained by the schemes of men" (*AD* 155). Although the very terminology with which we describe these animal movements as proceeding through "corridors of migration" seem to imply these birds' isolation from the stretches of land they cover in their flight (*AD* 155), at no point in their migrations are the snow geese's bodily engagement with their environment broken. Naturally, to this bird, the air is no less important a medium than land or water. And whereas Lopez may wonder at "their ability to navigate over great stretches of *what is for us* featureless space," the text has

already dismissed the notion that any stretch of land – or even water – can exist as featureless space (*AD* 155, italics mine). As the narwhal chapter taught us, what seems featureless may merely be beyond human sensory perception. Snow geese, the text elsewhere lets us know, navigate by detection of electromagnetic fields through areas that even modern biology recognizes to be these birds’ “home range” within a larger “familiar area” (*AD* 158, italics mine). Regarded as a phenomenon rather than as mere tracings across space, snow goose “life, stretched out over so many thousands of miles, and moving on every four or five weeks, always moving on,” resembles more closely the life of the wayfarer than that of the traveler (*AD* 157).

Despite the critique of mapping and the abstract concepts of space launched by Lopez and contemporary geographers like Massey, the map of the snow geese’s migratory routes does serve an important function in *Arctic Dreams*. For whereas the itineraries of the sedentary fox within the text remains limited to Pingok Island, those of the migratory snow goose connect, or make clearer, not only “the extent of space between ground and sky, [but] between [the Californian] here and the far North” (*AD* 158). In this manner the migration map helps Lopez bring the network of relationships he generally traces within arctic natural environments home to his fellow American readers. By doing so, the migratory map brings the Arctic and the lives of arctic animals into our sphere of knowledge in quite a different manner that did the maps and narratives of Parry and other arctic explorers.

The Arctic itself as animal

In *Arctic Dreams* the migration of lesser snow geese becomes the epitome of life in movement. The text further traces a multitude of other annual animal migration routes, all of which are journeys to and from nesting or calving grounds. Although these migrations occur across extensive distances, they involve a “movement of life specifically of becoming rather than being,” and are hence expressive of a wayfaring relationship with the land (Ingold *Being* 72). The North American Arctic is simultaneously also host to other forms of migration occurring at different scales in time and space. Within this particular region, Lopez points out, “[a]nimals are still adjusting to the retreat of the Pleistocene glaciers, which began about 20,000 years ago” (*AD* 160). Additionally, shorter climatic shifts – “on the order of several hundred years – are responsible for cyclic shifts of some animal populations north and south during these periods” (*AD* 160). Then there are short-distance migrations attuned to annual

climatic cycles, exemplified by “[l]emmings mov[ing] under the snow” and “arctic foxes mov[ing] out onto the sea ice,” complimented by animal migrations during a season, or in response to diurnal rhythms (*AD* 161). And yet, all these migrations are just particular expressions of a much wider range animal movement found in this region. The image that results from Lopez’s listing of animal movements in the Arctic is one of vast and intricate networks of relationship:

When one considers all these comings and goings, and that an animal like the muskox might be involved simultaneously in several of these cycles, or that when the lemming population crashes, snowy owls must fly off in the direction of an alternative food supply, and when one adds to it the movement of animals to the floe edges in spring, or the insects that rise in such stupendous numbers on the summer tundra, a vast and complex pattern of animal movement in the Arctic begins to emerge. ...

The extent of all this movement is difficult to hold in the mind. ...

...

The movement of animals in the Arctic is especially compelling because the events are compressed into but a few short months. ... Standing there on the ground, you can feel the land filling up, feel something physical rising in it under the influence of the light, an embrace or exaltation. Watching the animals come and go, and feeling the land swell up to meet them and then feeling it grow still at their departure, I came to think of the migrations as breath, as the land breathing. In spring a great inhalation of light and animals. The long-bated breath of summer. And an exhalation that propelled them all south in the fall. (*AD* 161-62)

Through attentive awareness of the animals of the Arctic, Lopez represents the Arctic itself as a living, breathing organism. This point is reiterated at the very end of *Arctic Dreams*, as Lopez makes the statement that “[t]he land, an animal that contains all other animals, is vigorous and alive” (*AD* 411). But how can this act of ascribing life to a physical environment be justified? So far Lopez has introduced us to specific relationship networks that themselves have agency (like the intra-species relationships of snow geese and muskoxen), and it takes no great leap of the imagination to see that the land contains these relationships. But Lopez also insists that the land in fact exists *in and through* the relationships with the animals it supports, just like the animals exist in and through their relationships with the land and with each other: “To be what they are they require each other” (*AD* 177). Analogous to the way the land provides life and sustenance to the animals living within it, the animals bestow life upon the land. Echoing the animism of northern indigenous hunters, the land is in *Arctic Dreams* figured in terms of a vast and all-encompassing relational field, at one and the same time the giver and possessor of life.

Although Lopez is himself an extensive traveler and no enemy of modern science, the passage above emphasizes that knowledge about the network of relationships at play in the Arctic can only be perceived from within, only from the perspective of the *wayfarer*. Lopez is on site, caught in the dynamism of animals in movement, when this insight comes to him. Contextualization is also a premise in the sense that the phenomenon of animal movement in general, and of migration in particular, is more pronounced in the Arctic than in more southern regions. Due to annual weather patterns, all these “events are compressed into but a few short months,” during which the land also physically changes in ways unfamiliar to inhabitants of lesser numbered latitudes (*AD* 162). The light intensifies, the ice melts, the tundra starts to thaw; all of which Lopez imagines as the land’s response, its “swell[ing] up to meet” the animals (*AD* 162).

To visualize and communicate these ‘indigenous’ insights, Lopez grants both body and breath to the network of relationships that in the Arctic *is* the land. The long passages dedicated to the snow geese have established an association between animal migrations and air that Lopez can now utilize to depict these animal movements in terms of life-giving breaths of air. In line with his search for a new philosophy, Lopez avoids a Romantic coupling of embodiment and anthropomorphization by specifying that the rudimental body here sketched is that of an animal. Through this evasion the Arctic remains wild and beyond human dominion even within a human conceptualization of it.

Thus the land can in *Arctic Dreams* emerge as an animal vigorous and powerful. Part of its power “derives from the tension between its obvious beauty and its capacity to take life” (*AD* 393). Lopez’s choice of words here recounts feelings of sublimity expressed by nineteenth-century Western explorers in their encounters with arctic landscapes. However, whereas the Arctic also to these explorers became “alive like an animal,” the nature of Lopez’s animal is as intricately complex and fundamentally life-giving as theirs was desolate and associated with death (*AD* 392). In Lopez’s organicist vision, the land becomes a wild and free animal to be respected (and enjoyed) rather than feared and overcome. By repeatedly insisting that the land is in the Arctic “an animal ... vigorous and alive” (*AD* 411), *Arctic Dreams* inscribes a two-way relationship between the larger *ecosystem* of the land and its denizens, while simultaneously reasserting the agency and power of other arctic animals. Exemplified by the polar bear, the narwhal and the muskox, these are animals that share with the arctic environment itself a similar blend of beauty, mystery and danger.

The water bear: the relativity of time

Captivated and slightly disoriented by the physical experience of watching the snow geese fill the sky at Thule Lake, Lopez comments that “[o]ne is not long in the field before sensing that the scale of time and distance for most animals is different from one’s own” (AD 158). When compared to the lives of the animals of Pingok Island, snow goose life, with its wide-ranging migrations, demonstrates once again the relativity of space when viewed from the perspectives of different animals (AD 157). The inclusion of different animal viewpoints in the text also emphasizes the relativity of time. This relativity of time is particularly evident in the Arctic, in which the coming and going of animals gives the land “a unique rhythmic shape” (AD 171). The rhythm of the Arctic, however, can be felt only during a few months of summer and only in certain places. “Mostly,” Lopez writes, “the whole land is still” (AD 171). In a frozen, static Arctic, Lopez compares *time* to an animal passing through the land:

Time here, like light, is a passing animal. Time hovers above the tundra like the rough-legged hawk, or collapses altogether like a bird keeled over with a heart attack, leaving the stillness we call death. In the thin film of moisture that coats a bit of moss on a tundra stone, you can find, with a strong magnifying glass, a world of movement buried within the larger suspended world: ageless pinpoints of life called water bears migrate over the wet plains and canyons of jade-green vegetation. But even here time is on the verge of collapse. The moisture freezes in winter. Or a summer wind may carry the water bear off and drop it among bare stones. Deprived of moisture, it shrivels slowly into a desiccated granule. It can endure like this for thirty or forty years. It waits for its time to come again.

Long, punctuated hours pass for all creatures in the Arctic. ... But for the sudden movements of charging wolves and bolting caribou, the gambols of muskox calves, the scamper of an Arctic fox, the swoop of a jaeger, the Arctic is a long, unbroken bow of time. (AD 171-72)

In this passage, Lopez in a series of similies compares time to different animals. Thereby he again subtly evokes an image of the arctic environment as a complex structure of worlds within worlds. A characteristic feature of these worlds is that in all of them “time is on the verge of collapse.” Despite Lopez’s somewhat abstract use of language, however, the comparison between time and animal is not merely metaphorical. The collapse of time equals death, signaling a direct connection between time and life. In this sense the passage expresses one of the fundamental insights of *Umweltlehre*: that “[w]ithout a living subject, there can be no time” (Uexküll *Foray* 52).

According to Uexküll, time is not only relative to point of view; it is also a function of life. The explanation for this relativity lies within the biological composition of each

organism, and particularly within the makeup of its sensory organs. The shorter time-span the sensory system of an animal can recognize as a separate moment of experience, the longer or 'richer' one particular period of time seems. "Moments," writes Uexküll, "are the smallest indivisible vessels of time because they are the expression of indivisible elementary sensations" (*Foray* 70). For a micro-animal like arctic water bear, a mere 'pinpoint of life,' individual moments of experience are doubtlessly of a different length and nature than those of a human being, whereas its total lifespan – interrupted and kept 'on hold' like that of Uexküll's well known tick (*Foray* 44-45) – may be longer. The life and time of the water bear is constantly threatened by deprivation of moisture, by frost and by involuntary migration to inhospitable surroundings. In this context, frost and/or lack of moisture are understood as stasis: as movement and life stalled but not extinguished. When in the presence of moisture, the water bear comes to life. As Lopez imagines the tiny stretches of wet tundra vegetation that allows this revitalization from the perspective of the water bear, he can represent within the bleak tundra landscape he himself observes the water bear's luscious miniature world of "wet plains and canyons of jade-green vegetation" (*AD* 172). Hence there is a double sense in which the water bear "waits for its time to come again" (*AD* 172). It must postpone its life processes until that point on the supposedly universal human time scale in which water is again available. At that point *its* time starts again – in the form of moments of perception that guides this little biological subject in its interaction with the environment.

Lopez refers to the water bear as an "ageless" creature (*AD* 172). Its agelessness signals a broader relativity of time that Lopez wants us to see as a characteristic of the landscapes of the Arctic. The water bear is ageless in the sense that it belongs to an ancient group of resilient life forms found throughout the world and in the most extreme of environments. More importantly, its very mode of living is radically detached from modern, human conceptions of constant and unidirectional linear time. For this little arctic organism, long periods of human time pass by without registering, while much life takes place in what is for the human but a moment. Lopez expands this relativity of time as he, from the time-scale of the human, describes how time "hovers above the tundra" in the shape of animals (*AD* 172). Time takes the shape of animals because it is intricately connected to their lives. Thus in the passage above, like in Uexküll's definition, time is constituted by the animal subject and connected to its life and movement. From the vantage point of the human observer in the Arctic, this means that time *in its multitude of forms* arrives in the Arctic with the migratory animals, and collapses or 'freezes' with their departure. Only in the absence of their influence

can time be imagined to proceed along the linear continuum humans have assigned to it. With the inclusion of a range of perspectives of nonhuman subjects with biological timescales of their own, Lopez in *Arctic Dreams* challenges the modern Western conception of universal time.

The water bear's way of existing beyond time is very different from the way early ethnography represented the indigenous peoples of the Arctic as existing beyond time. Ethnographic descriptions tended to place the Inuit beyond *modern* time, in other words, in 'bubbles' of a static past existing in isolation in, yet simultaneously beyond, the present moment. Like in Massey's re-conceptualizations of space, no such isolated primitives can exist in Lopez's arctic landscapes. The radical relativity – or biological multiplicity – of time is in Lopez's text part of the present moment. As a consequence, both time and space are multiplied and become lively, and combine into a space-time of (biological) encounters. The liveliness of the biological moment, however, does not obliterate the past. In the above, Lopez inscribes into the present moment the "long, unbroken bow of time" (*AD* 172). Also this long-term timescale is associated with the animal. Having previously lavished attention on migratory history and the physiological adaptations of the muskox, Lopez in these reflections on time turns the look of the muskox into a reminder of evolutionary time. "The winter face of a muskox, its unperturbed eye glistening in a halo of snow-cruled hair, looks at you over a cataract of time, an image that has endured through all the pulsations of ice" (*AD* 173). The 'long arrow of time' is in this landscape the biological time of generations of muskoxen constantly adjusting to an environment that is itself undergoing continuous processes of change. In this dynamic, long-term scale of time in the Arctic, the history of the human is but a moment: "a stone in your hand" (*AD* 173). The look of the muskox, which, according to Berger's "Why Look at Animals," grounds the human within the environment, emphasizes that in comparison to the muskox, the human is here a newcomer. Through his philosophical reflections on time and on the animal Lopez thus enacts a de-centering of Western historical time that allows the inclusion of other conceptions of time and other histories into the landscapes of the Arctic. Like Massey's space, Lopez's Arctic becomes a place of continuous and multiple processes of emergence, a place of animals engaged in the full expression of their lives in movement.

Animal cultures and Arctic civilization⁴⁸

In consonance with the text's re-association of time and space, *Arctic Dreams* recognizes and traces the histories of both humans and animals in the land. Also in this sense Lopez does for the Arctic much the same that Massey twenty years later would do for the Western conception of space in general. To emphasize that humans constitute vital parts of the relational networks of arctic natural environments, Lopez dedicates the second half of the chapter on migration to the arrival and development of human cultures. His profound and detailed contemplations on the "great drift and pause of life" in the North American Arctic ends by an image of "[p]eople, moving over the land" (AD 203). Like animals, humans migrated into this region from places further south, responding to the demands of the environment. The diversity of Inuit cultures that resulted from this movement, Lopez points out, went generally unnoticed by European explorers until the beginning of the 20th century. "The notion of Eskimos exploring their own lands and adapting anew at the same time Europeans were exploring the Arctic," writes Lopez, "was something the Europeans were never aware of" (AD 382). The distinctly modern conception of space implicit in their geographical endeavors made them prone to conceiving of Inuit cultures in terms of *primitive isolates*, described by Massey as place-defined 'original' societies lacking any history of contact with the outside world, and passively awaiting their arrival (67-68). Offering detailed descriptions of Inuit cultures based on a variety of textual reports and archaeological discoveries, *Arctic Dreams* corrects and complicates this simplified and erroneous image, just like it has complicated the image of arctic animals.

Having granted agency, intent, personhood, sociality, and history to the animals of the Arctic, and having established parallels and interrelationships between humans and animals of this region, *Arctic Dreams* describes *both* human and animal communities in terms of "non-Socratic societies" (AD 75). Based on these observations, I would argue that implicit in Lopez's critique of the failure of Western explorers to recognize the cultural diversity and dynamism of human societies of the Arctic lies a further critique of how our culture still fails to recognize the *animal* societies and their histories within this region. Like their human

⁴⁸ Central arguments of this sub-chapter have previously been published in *Ecozon@*, (Vol. 5 No. 2 special issue on "Northern Nature") as part of the article entitled "Barry Lopez's Relational Arctic" (72-87). The discussions of this chapter represent an expanded version of the arguments made in the *Ecozon@* article.

counterparts, these animal societies consist of – and owe their characteristics to – individuals involved in complex social relational networks. The challenge of *Arctic Dreams* to the anthropocentric perspective of Western culture is strengthened as human societies in the Arctic are joined by a multitude of animal societies, and as Lopez invites us to imagine the land, that larger unity which holds them all, in terms of “another sort of *civilization*” (*AD* 12, italics mine). By thus ‘civilizing’ the animal, *Arctic Dreams* shows us a way to imagine animals as existing on the same ontological level as humans, without separating either from their ecological foundations. Both are presented as part of a natural environment that the text allows us to understand in terms of a social space.

Precisely because civilization should in this context be understood in relational rather than in metaphorical terms, Lopez’s move here is bold. The concept of civilization is in itself evasive and has spurred several different definitions. However, all share in reserving the concept of civilization to the *human* social sphere, and to societies that have developed social institutions and stratifications, written language and/or city states.⁴⁹ Even to Felipe Fernández-Armesto, whose work on civilizations focuses on the human “relationship to the natural environment,” the definition rests upon the extent to which this natural environment is “recrafted, by the civilizing impulse, to meet human demands” (14). As Inuit hunter cultures throughout historical time have adjusted to the conditions of the natural environment rather than shaped it according to their own needs and purposes, this implies to Fernández-Armesto that even *human* indigenous civilizations do not exist in the Arctic (40-55).

Arctic Dreams depicts a variety of encounters with animals acknowledged to have their own rational motivations for, and history of, interaction with the land. Yet this text hints a more inclusive and less constructivist definition of civilization primarily by tacitly activating conceptions of the natural environment from Inuit cosmology and from modern scientific theories in which animal sociality is recognized as a matter of fact. In this manner *Arctic Dreams* indirectly addresses the question of whether or not animals may be considered subjects. The presumption about the uniqueness of human language, like the presumption that

⁴⁹ An extensive selection of definitions of the term civilization may be found at the International Society for the Comparative Study of Civilizations’s Web site (presently at <http://www.iscsc.org>; accessed 25 Apr. 2014). These range from Oswald Spengler’s definition of civilizations as a higher states and/or final phases of human cultures, in turn figured in terms of “organisms” (104), to Andrew Bosworth’s definition of civilizations as “culture[s] resting on complex and evolving structures of information and knowledge (best reflected by a writing system)” (25).

only human social behavior is based in *reasons* rather than in biological *causes*, has served to block the idea that animals are capable of forming cultures (Lestel 380-81). An approach like Lopez's implies the outmodedness of such presumptions in light of recent developments in biology, biosemiotics, and the physical sciences.⁵⁰

Lopez's proposition that we regard the Arctic in terms of a civilization constituted by a multitude of animal cultures challenges modern Western culture's nature/culture dichotomy and suggests an alternative and less conceptually mediated way of relating to the natural environment. It also brings the question of our relationship with animals into the more familiar sphere of the social. One thing contemporary Western people *are* used to having to deal with is cultural variety, and we have established a set of theories and ethical norms as to how this should be done. Unfortunately, as Cary Wolfe points out, when it comes to dealing with animal Others such a framework is still largely missing (7). In allowing for a way to conceptualize the Arctic and its animals in terms of civilizations and societies, *Arctic Dreams* implies that our approach to these parts of the natural world should be as respectful and cautious as if human civilizations and societies were involved. Hence, it should proceed through dialogue and a search for knowledge, rather than through brute force and attempts at domination. Such a dialogue is made possible through *Arctic Dreams*' repeated suggestions of ontological equality, in combination with depictions of arctic space as lively and relational, and always in the process of being made.

Arctic civilizations and their texts

The lively time-space of Lopez's Arctic might indeed be read as a kind of *contact zone* (Pratt 8) allowing the creative co-presence not only of *human* cultures previously separated geographically as well as historically, but additionally of *human and animal* cultures between which Cartesian philosophy has established a state of *hyper-separation* (Plumwood 101). By tracing the histories of both animals and humans in the land, *Arctic Dreams* allows the "trajectories" of these multiple heterogeneous cultures to "intersect" (Massey 119; Pratt 8). Reading Lopez's text with an eye to the way it both explicitly and implicitly presents Inuit

⁵⁰ Lopez himself expresses the influence this idea of ontological leveling had on his authorship in claiming that "things fell into place" for him as a writer and thinker after a native traveling companion told him that "animals and people [a]re parallel cultures" (Lueders 17).

perceptions of the natural environment and its animals allows us to recognize how this convergence of trajectories highlights the manner in which humans and animals are mutually affected “in and by their relations to each other” (Pratt 8). The history of exploration, due to the explorers’ very mode of travel *across* arctic spaces, leaves little trace of this interrelationship with animals. Lopez, however, spends quite some time in the lands he visits and with opening up to the experience of their animal societies. His animal anecdotes and aestheticized scientific descriptions of arctic wildlife suggest that even modern Westerners might reengage in such co-constitutive relationships with animals. What is needed is learning how to read the landscape for traces of the relational networks it contains. A distinctly ecological understanding of arctic landscapes is, in other words, the very key to understanding the Arctic as a multicultural human-animal contact zone.

Lopez’s way of associating the time-space of arctic landscapes with *animal* times and perceptions of space are especially beneficial to the establishment of this natural-cultural contact zone. By de-centering the human perspective on space and time, he helps bring together different human and animal histories in, and perspectives on, the Arctic. Lopez’s focus on animals further highlights the phenomenological nature of this arctic contact zone in a way that brings the lifeworlds of these animals closer. In doing so, the text makes it more difficult to ascribe to these animals our own culturally determined symbolic meanings. Instead, the very structure of *Arctic Dreams* encourages the reader to remain attentive to animal lifeworlds and animal uses of the land throughout the text’s sustained contemplations on the landscapes of the Arctic.

Lopez dedicates the first half of *Arctic Dreams*, the chapters “Banks Island: *Ovibos moschatus*,” “Tôrnârssuk: *Ursus maritimus*,” “Lancaster Sound: *Monodon Monoceros*,” and “Migration: The Corridors of Breath,” to the animals of the Arctic. Within the former three chapters, Lopez presents large arctic mammals and their natural environments, and (in case of the polar bear and the narwhal) evokes a sense of their lifeworlds. In the latter chapter, he traces the migratory movement and evolutionary development of animal cultures in the Arctic. The first part of *Arctic Dreams* thus teaches readers to become aware of the presence of zoosemiotic signs in the landscape, and to connect these signs to the existence of a variety of

animal lifeworlds. In the second part of the text Lopez proceeds to give an account of Western human activities on the land and of the signs left by these activities.⁵¹

The sequence of this two-part structure of the text signals Lopez's awareness of the way in which the existence of *human* signs in the landscape tends to blind our perceptiveness of the signs of *animals'* lives within the same landscape. This purely human interpretation of the landscape as text is supported by a wealth of actual historical texts (like Parry's *Journal* and Scoresby's *Account*). By placing the animal part of *Arctic Dreams* prior to the section concerning Western imaginations and encounters with arctic landscapes, Lopez makes a form of land-claim argument on behalf of the animals of the region.⁵² Before presenting in length the history of Western explorations and the material and symbolic utilization of the Arctic in the chapters "The Intent of Monks" and "A Northern Passage," the first part of *Arctic Dreams* establishes animal occupancy and mobility patterns in the North American Arctic. By literally placing animals first, and by turning their landscapes into radically relational and lively spaces in which a range of worlds meet, Lopez counters the image of the Arctic as a mostly empty *human* landscape.

The fact that Lopez evokes the fox's vision of Pingok Island within a chapter entitled "The Country of the Mind" is in this respect particularly telling. The very placement of the passage suggests that there exists in the Arctic a diversity of animals not only with minds of their own, but also with their own perceptions of the environments in which they are home. These animals leave inscriptions in their own language within the multi-cultural nature-culture texts of arctic landscapes – available for interpretation to those familiar with these animals' language and culture. In this sense the different landscapes of the Arctic constitute the *texts* of Lopez's arctic civilization: heterogeneous and dynamic records of the rise and fall of cultures and of the lives of individuals within this civilization.

⁵¹ The plot structure of *Arctic Dreams* does to some extent also reflect the different concerns of the two halves of the book. Whereas the first half of the text, in which animals and their ecosystems serve as focal points, has the digressive structure of the *odyssean* traveler or the wandering fox, the major part of the second half is presented in the linear, chronological narrative form characteristic of the more historical texts to which it refers.

⁵² An impressive example of a recent project strongly supporting Inuit claims to lands in the Eastern and Central Canadian Arctic is the Pan Inuit Trails project. Employing data from a variety of sources, including interviews with Inuit Elders as well as Western historical explorer and trader accounts, the Pan Inuit Trails project has made important contributions in documenting Inuit occupancy and traditional use of great areas of land in this region of the North American Arctic. <http://www.paninuittrails.org/index.html> (Web 1 July 2017).

Chapter Six: A postmodern organicist Arctic

Postmodernism and ecology – common ground

Ecocriticism emerged in its early forms in the 1980s from a desire to speak of (and often through) “an embodied or material engagement with the world” that its practitioners felt contemporary critical paradigms such as post-structuralism and postmodernism neglected (Oppermann "Rethinking" 35; cf. Buell *Future* 6-7). Originally highly critical of the way in which social constructionist models of the world seemed to deny the very existence of the real world to which they referred, ecocriticism nevertheless gradually came to find postmodernism valuable for its “complex analyses of the interconnections between power, knowledge, subjectivity, and language” (Alaimo and Hekman 1). Recently, new materialist ecocritic Serpil Oppermann has argued that what postmodernism does is *not* so much to “celebrate the disappearance of historical reference,” and by extension question the existence of the referential real, as it is to question our continued “*confidence in its representation*” (Oppermann "Rethinking" 37; Gough and Price 24). One of the things postmodernism (or post-structuralism) deconstructs to the point that it becomes difficult to ignore the ruinous state of former demarcations is precisely the dichotomy between the real and the discursive. The recognition of this has caused ‘third-wave’ ecocritics of new materialist inclinations to acknowledge their indebtedness to postmodern theory (Iovino and Oppermann 78). Drawing on analyses made in the former chapters, the present chapter argues that *Arctic Dreams* is indeed a postmodern text of nature writing that deals with issues of the *representation* of an arctic experience. It is moreover a text whose sensitivity to arctic landscapes prevents a denigration of their material reality, even in the most aestheticized of representations. My contention in this chapter, and in chapters to come, is that the representation of arctic landscapes in *Arctic Dreams* can retain its focus on material reality precisely through the evocation of what Stephen Best and Douglas Kellner have characterized as a “postmodern paradigm in the sciences” (222) to which quantum physics is central.

In the Introduction I drew attention to the tendency of early critics of *Arctic Dreams* to emphasize the text’s Romantic and/or Transcendentalist qualities: Lopez’s “self-conscious interest in the psychology of awareness” (Slovic *Seeking* 141), and his presentation of a Romantic and ecological sense of the unity of the world (Paul 107). In a moment of frustration about what seemed like an insurmountable chasm between the preoccupation in

nature writing and ecocriticism with communicating the (emotional, Romantic) experience of the human encounter with the world, and the abstract analyses presented in critical theory of the cultural and political power structures involved in such encounters, SueEllen Campbell in 1989 published an essay entitled “The Land and Language of Desire: Where Deep Ecology and Post-Structuralism Meet.”⁵³ This sense of frustration with early or ‘first wave’ ecocriticism’s resistance to (or alienation from) theory (Buell *Future* 6-8) was, however, also a moment of rare critical foresight in which Campbell was able to identify a “common ground of post-structuralism and deep ecology” (127).⁵⁴ Crucial to this establishment of a ‘common ground’ was Campbell’s observation that “theorists” (her shorthand for post-structuralist theorists) and “ecologists” (her term for nature writers and other thinkers more or less closely adhering to the philosophy of deep ecology) share a “critical stance” towards tradition and authority: both “begin by criticizing the dominant structures of Western culture and the vast abuses they have spawned” (127).

Sharing the same kind of revolutionary impulse, theorists and ecologists alike aim to “overturn old hierarchies, to take value from the once dominant and give it to the weak” (Campbell 127). In this process, ‘theory’ (or postmodernism) privileges pluralism in social and political contexts, whereas ‘ecology’ (and/or ecocriticism) also privileges biological pluralism. With the concept of the natural environment as a “conversational domain” or “text” (White 32; Maran 81), ecology can converge with postmodernity and open up to new forms of thinking based on ideas of heterogeneity. With this multiplication of perspectives, Campbell writes, the (postmodernist/post-structuralist) theorist can transform seemingly “unproblematic concept[s]” like ‘reason,’ ‘facts,’ ‘human,’ ‘self,’ and ‘civilized’ into things “both thoroughly historical and thoroughly political” (128). As part of this process “the old

⁵³ This essay was later re-printed in Cheryll Glotfelty and Harold Fromm’s *The Ecocriticism Reader* (1996), to which I in the following refer.

⁵⁴ In the following I will use Oppermann’s more inclusive and culturally broader defined term *postmodernism* rather than Campbell’s *post-structuralism*. This allows recognition of how Lopez’s text relates to later theories of new materialism, which openly acknowledge the influence of important postmodern, queer and feminist theorists like Gilles Deleuze and Felix Guattari, Judith Butler and Donna Haraway. Like the post-structuralists, most postmodern theorists are also involved in the project of deconstructing cultural objects and concepts that we tend to take for granted. In recognition that the ecological perspective presented by most postmodern and new materialist critics corresponds poorly to the philosophy of deep ecology, I will use the more general term *ecology* instead of Campbell’s *deep ecology*.

contrast is transformed into a new and much more complicated kind of opposition, and other similar concepts come into question as a consequence” (Campbell 128).

Campbell uses Lopez’s *Arctic Dreams* to exemplify what this kind of deconstruction would look like in an ecologically oriented text of nature writing. In this text, she writes,

Lopez ... replaces the distinction between humanized landscapes and uninhabited wilderness by paying attention to how the human imagination – as well as human action – has always interacted with the land. And he questions the usual opposition between the civilized and the primitive when he says, ‘What is truly primitive in us and them, savage hungers, ethical dereliction, we try to pass over’ (Campbell 128)

As Campbell here indicates, Lopez in *Arctic Dreams* openly questions the dualism between the ‘primitive’ Inuit and the ‘civilized’ modern Westerner he himself is a representative of. With the discussions of chapters Four and Five in mind, I would argue that this dualism is even more profoundly altered by the way Lopez tacitly includes Inuit perspectives on arctic landscapes and animals into his narrative.

In the preceding chapters of this dissertation, I have shown how Lopez also in number of other ways in *Arctic Dreams* “overturn[s]” the “old hierarchies” of Western culture’s centrism (Campbell 127), in the process questioning key concepts and principles with which we order our perceptions of the world. Chapter Three discussed how Lopez’s representation of the polar bear, as part of a larger argument against the further *instrumentalization* of animals, challenges the principles of *radical exclusion*, *homogenization* and *backgrounding* that Plumwood has discovered to be at work in Western anthropocentric culture. His insistence on placing the animal on the ontological level of the human further disrupts the *hyper-separation* between human and animal, and assigns intrinsic value to this “weak” and oppressed opposite of humankind (Campbell 127). As argued in Chapter Five, Lopez’s presentation of arctic landscapes from the (imagined) perspectives of its animals moreover de-centers the Western human perspective on space and time. This de-centering is possible because of the heterogeneity of perspectives the text allows.

Arctic Dreams clearly operates with a post-structuralist notion of text as “a multi-dimensional space in which a variety of writings ... blend and clash” (Barthes 99). Accordingly, it includes references to a range of different historical as well as contemporary cultural texts about the Arctic (including scientific descriptions) that all present their own versions of its landscapes. More important to the ecological vision of *Arctic Dreams*, however, is the idea of the actual landscape as text. By combining ecological, ecosemiotic,

and Inuit epistemological strands of thought, Lopez can in *Arctic Dreams* open up the conversational domain of the landscape to include animals as social agents involved – together with humans – in the construction and reading of this heterogeneous nature-culture text.

Notwithstanding the text's exquisite lyricism, I believe this more theoretical aspect to be fundamental to readers' continued fascination with *Arctic Dreams* as well as for the impact this book has had on the genre of nature writing. I also believe that we can characterize *Arctic Dreams* as a postmodern text because of the way its inclusion of a variety of cultural and non-human perspectives serves to question, from within the framework of Lopez's narrative of the Arctic, accepted Western visions of this region. My analysis has so far revealed the ways in which *Arctic Dreams* deconstructs Western cultural presumptions about the Arctic precisely by remaining "alert to the implications, to the historical sedimentation" of the scientific "language" and the images we use to describe it (Derrida "Structure" 271). The two subsequent chapters of this dissertation will consider how Lopez in his descriptions of arctic landscapes applies and reworks the language of Romanticism: its imagery and its aesthetics. The current chapter investigates how Lopez through references to quantum physics aligns *Arctic Dreams* with a recognizably postmodern paradigm in the sciences. My analysis will begin by interpreting the effect of these references to quantum physics on the representation of animals, before proceeding to offer some reflections on how this new scientific paradigm influences the general aesthetics – or poetic vision – of the text.

Introducing relativity theory and quantum physics

In *Arctic Dreams*, Lopez presents an ecological vision of the Arctic that engages in "the study of patterns in nature" (Kingsland 1). Within the text itself these patterns emerge both as scientifically verifiable and as unverifiable, purely aesthetic forms of relationship. As noted in Chapter Five, the natural environment is in *Arctic Dreams* presented as a vast network of relationship patterns in which humans and animals have their being. In presenting this vast 'web of life' in the image of a rudimentary animal, Lopez reveals the influence of organicist thought on his vision of the Arctic.

Lopez's socio-ecological model of the natural environment is inspired by Inuit ontology, but makes overt references to ecology (including field biology) and *Umweltlehre*. Both of these are scientific fields that emerged as reactions to a general trend in the biological

sciences “toward greater specialization and a narrowing focus on smaller and smaller entities easy to experiment with in a controlled setting” (Phillips 52), and that argue for the necessity of studying animals *in situ* and in the full exercise of life. However, as Lopez’s description of the tagging of a female polar bear remind us, although the outlook of the field biologist is closer to the animal than that of the traditional biologist, it nevertheless involves a reductive approach. In *The Truth of Ecology*, Phillips also directs our attention to the fact that whereas the science of ecology in its inception dedicated itself to ideas of “balance, harmony, unity, and economy,” ecologists today regard such ideas as “more or less unscientific” or “utopian” (42). While the idea lingers (among people in general and ecocritics in particular) that the science of ecology uniquely escapes the entrapments of mechanistic reductionism because it embraces holism, its actual research agenda, Phillips argues, “is increasingly directed toward making it look *more* like the harder, more mechanistic and reductive sciences, not less” (46, italics mine). Ecology of the holistic kind (that environmental historians like Worster have) associated with Romanticism has today “passed out of fashion,” not because ecologists are less environmentally concerned than they used to be, but because their organicist models of nature, their ideas of climax communities, and of correlations between complexity and stability proved increasingly difficult to sustain as the science itself developed (Phillips 49). According to Phillips, ecologists at present question even the idea that a careful identification and calculation of all the parts of the *ecosystem* can provide meaningful information about ‘the whole,’ “however elegant the math involved” (69).

In Phillips’ analysis, the idea of the unity-of-the-whole seems no longer to be part of the science of ecology, but to remain only within an idealized vision of ecology as an environmental ‘point of view’ associated with literary Romanticism and its ideas of transcendental unity. Similarly, in Uexküll’s *Umweltlehre*, the network of interrelationships that complements the *Umwelt* ‘bubble,’ and that connects the animal subject to its environmental others, is exceedingly evasive. Uexküll can only describe these relationships in terms of the counterpoints that constitute the harmony in a polyphonic melody (172; cf. Ingold *Being* 83). How, then, might Lopez evoke an organicist sense of unity to support his image of the land as animal without sacrificing the text’s scientific, empirical focus and reliability, and without turning ecology into a mere Romantic point of view? Quantum physics comes to the rescue.

As we saw in Chapter Five, Doreen Massey in *For Space* evoked the “new reconceptualizations of physics” in support of her reassociation of time and space (33). These

reconceptualizations were initiated by Albert Einstein, whose theory of relativity proved the perception of time to be relative to the speed of movement. They were subsequently developed within the scientific field of quantum physics. Relativity theory and quantum physics are deeply complex fields of study, whose details are truly understood only by a limited number of scientists. The following brief outline of these fields thus relies heavily on simplified ‘translations’ made by theoretical physicist David Bohm and by philosophers and theorists of science, and treats aspects relevant to the models of interconnectivity evoked in *Arctic Dreams*.

According to David Bohm, Einstein’s theory of relativity showed that thinking of matter as consisting of separate little particles made less sense than thinking of it as “a field not so different from ... flowing water, a field that spreads through all space and time and in which every particle is a stable form of movement, just as the vortex or whirlpool is a temporarily stable form” (62). Relativity theory thus implied that the universe should be understood as one vast and unbroken field of movement, and particles as nothing but temporarily stable forms within this field. It nevertheless remained true to the basic assumption of locality in mechanistic thinking by claiming that the different parts of this field are only locally connected (Bohm 63). With quantum theory, however, this trace of mechanism also faltered. Studies of sub-atomic particles (like electrons) revealed these particles to be of a dual nature, and able to manifest themselves in the form of either particles or waves depending on the setup of the scientific experiment. This made it evident that the quality of these basic entities depended on their context (Bohm 64).

As Bohm points out, context dependence was already a well-known fact for physiologists studying living organs. What was new with quantum theory was that it established this context-dependence at the level of the atoms, “the ultimate units of nature,” hence making these units “begin[ning] to look more like something organic than like something mechanical” (Bohm 64).

The organicist model was further supported by the discovery that *nonlocal* connections exist between parts distant from each other and lacking “any apparent force to carry the connection” (Bohm 64). *Nonlocality* results from the phenomenon of “*entanglement*, whereby particles that interact with each other become permanently correlated, or dependent on each other’s states and properties, to the extent that they effectively lose their individuality and in many ways behave as a single entity” (Mastin, par. 5). It operates across scales, and suggests that what we have regarded as the separate parts, not only of the atom but also “of

the universe,” are “actually potentially connected in an intimate and immediate way” (Mastin, par. 4). Thus, in addition to the external relatedness between things, on which traditional science has focused, quantum theorists discovered an internal relatedness or *entanglement*, that, according to Bohm, suggested that the world is one “unbroken wholeness” (65). Because this internal or *implicate* order of the whole determines and is enfolded in each part, Bohm deems this order to be primary, and the external relatedness of what he terms the *explicate order* to be a “secondary, derivative truth” (66).

Thus Bohm provides the following simplified explanation of this very specialized field of science:

In summary, according to quantum physics, ultimately no continuous motion exists; an internal relationship between the parts and the whole, among the various parts, and a context-dependence, which is very much a part of the same thing, all do exist. An indivisible connection between elements also exists which cannot be further analyzed. All of that adds up to the notion that the world is one unbroken whole. Quantum physics thereby says what relativity theory said, but in a very different way. (64)

In denying the possibility of continuous motion, and in relegating the principles of external relatedness to the position of ‘secondary’ or ‘derivative’ truths, quantum physics radically disrupts the mechanistic worldview. It further asserts an interconnectedness of all things that manifests itself through the existence of implicate order entanglements that science cannot describe.

The postulation of such an implicate order in quantum physics seems thus to corroborate (through highly sophisticated scientific experimental analysis) the existence of that larger meshwork of entanglements that Uexküll could only imagine as music, and that is implicated in the Inuit perception of the natural environment. Both in its critique of mechanism and in its advancement of the interconnectedness of all things, quantum physics appears to be in correspondence with Lopez’s relational model of the arctic natural environment, and to support his representations of those less perceptible relationship patterns expressed in the movements of herds of muskoxen and flocks of snow geese.

Bohm’s account of quantum physics referred to in the above occurs in his article entitled “Postmodern Science and a Postmodern World.” Drawing from the work of Nobel laureate in chemistry Ilya Prigogine and philosopher of science Isabelle Stengers, Stephen Best and Douglas Kellner in *The Postmodern Turn* argue that the insights of relativity and quantum theory have merged with those of thermodynamics and theories of evolution to form

“something like a postmodern paradigm in the sciences” (Best and Kellner 222). In revealing that some of the processes that occur in natural systems involve energy transformations that result in irreversible qualitative changes to these systems, thermodynamics joined forces with the theory of evolution to introduce temporality and the possibility of self-organization into the scientific framework. The postmodern scientific paradigm thus “reinterpret[s] the universe as being constituted by forces of diversity, evolution, and instability, and by a complex dialectics of order and disorder” (Best and Kellner 203). And whereas Best and Kellner in 1997 cautioned that this paradigm must be regarded as an emerging and “not yet ... ‘normalized’” one (222), ecological philosopher Max Oelschlaeger had already six years earlier found the paradigmatic insight that “process is reality, and the order of cosmological process is irreversible” to represent a “second scientific revolution” (325). Despite such differences regarding the state and status of this paradigm, what seems indisputable is that there presently exists among certain scientists a realization that “while a mechanistic starting point cannot account for genuine organisms, an organismic starting point can account for all the mechanistic phenomena evident in the world” (Griffin 16).

Quantum physics as advancement of ecology

In *Arctic Dreams* Lopez uses overt references to quantum physics as yet another a strategy to move beyond a mechanistic scientific conception of arctic animals. The following passage beautifully illustrates this:

We have long regarded animals as a kind of machinery, and the landscapes they move through as backdrops, as paintings. In recent years this antiquated view has begun to change. Animals are understood as mysterious, within the context of sophisticated Western learning that takes into account such things as biochemistry and genetics. They are changeable, not fixed entities, predictable in their behavior only to a certain extent. The world of variables they are alert to is astonishingly complex, and their responses are sometimes highly sophisticated. The closer biologists look, the more the individual animal, like the individual human being, seems a reflection of that organization of energy that quantum mechanics predicts for the particles that compose an atom (*AD* 176-77).

The development away from a mechanistic scientific worldview and towards the complexities of quantum physics represents a radical sophistication of our view of the natural world. By associating his observations on animals with the findings of quantum physics, Lopez connects his text to a development in the natural sciences in which the “vision of nature is undergoing a

radical change toward the multiple, the temporal, and the complex” (Prigogine and Stengers 2). In the passage above he argues that this sophistication is in the process of occurring also in our understanding of animals. Biologists involved in their detailed study currently recognize animals to be complex forms of life, not only in terms of their genetic, biochemical, and physiological makeup, but also in terms of the intricate networks of relationship in which they have their being. Lopez can evoke this comparison between the “organization of energy” of animals and sub-atomic particles because he has at this point in the text already introduced the physiological and environmental complexities of the lives of arctic animals, including their imperceptible entanglements with other animals and with their natural environment. Accordingly, Lopez pronounces animals to be part of the radical interconnectivity of the world evidenced by the principles of energy distribution found even in the most basic constituents of this world.

Just like *Arctic Dreams* makes explicit references to the nineteenth-century exploration narratives on which its representation of arctic landscapes and animals draws, it also makes explicit references to the work of quantum physicists. Quantum physics present, in the language of science, some of the same insights about the natural world that Lopez has gained through his indigenous hunter’s mode of engagement with arctic landscapes. In the following passage, Lopez exemplifies how insights born from the studies of subatomic particles can be extended to the study of animals:

Spatial perception and the nature of movement, the shape and direction something takes in time, are topics that have been cogently addressed by people like Werner Heisenberg, Erwin Schrödinger, Paul Dirac, and David Bohm, all writing about subatomic phenomena. I believe that similar thoughts, potentially as beautiful in their complexity, arise with a consideration of how animals move in their landscapes – the path of a raven directly up a valley, the meander of grazing caribou, the winter movements of a single bear over the sea ice. We hardly know what these movements are in response to; we choose the dimensions of space and the durations of time we think appropriate to describe them, but we have no assurance that these are relevant. To watch a gyrfalcon and a snowy owl pass each other in the same sky is to wonder how the life of the one affects the other. To sit on a hillside and watch the slow intermingling of two herds of muskoxen feeding in a sedge meadow and to try to discern the logic of it is to grapple with uncertainty. To watch a flock of snow geese roll off a headwind together is to wonder where one animal begins and another ends. Animals confound us not because they are deceptively simple but because they are finally inseparable from the complexities of life. It is precisely these subtleties of fact and conception that comprise particle physics, which passes for the natural philosophy of our age. Animals move more slowly than beta particles, and through a space bewildering larger than that encompassed by a cloud of electrons, but they urge us, if we allow them, toward a consideration of the same questions about the

fundamental nature of life, about the relationships that bind forms of energy into recognizable patterns. (*AD* 177-78)

The passage demonstrates how the re-association of time and space that Lopez earlier established through the evocation of a series of animal *Umwelten* finds support in the theories of quantum physics. Just as the nature and space-time of quantum physics escape us, Lopez here suggests, so do the intricacies of animal existence and animal space-time.

Quantum physics asserts that at the most foundational level the existence of all entities is bound to their movement. Although not always evident, or even possible to analyze, the movements of one entity will always, in some way or other, influence the whole of which this entity is part. The application of this principle to an arctic setting causes Lopez realize that the movements of the snowy owl and the gyrfalcon mutually influence each other, even when the form of their relational entanglements are manifested merely in the visible fact that they share the same sky.

Quantum physics also insists upon the kind of context dependence that *Arctic Dreams* has advanced all along: through its inclusion of *Umwelt* theory and Inuit hunters' cosmology, as well as through its focus on animal encounters in the wild. Wild animals, as unpredictable in their behavior as sub-atomic particles, cannot be removed from the context of the organizing whole without this representing a profound alteration to their natures. Neither should their physical existence be regarded as independent of their movements in the land.

In the passage above, Lopez emphasizes the unity of space and time, as well as the context dependence of all phenomena, by presenting the lives of animals to be governed by the same principles that govern the existence and movement of sub-atomic particles. His contemplation of how the life of a gyrfalcon and a snowy owl sharing the same sky affect each other implies the existence of implicate order entanglements. Similarly, Lopez's evocations of the coordinated movements of the snow geese flock here, as in earlier passages, indicates a form of interconnectivity in which the boundaries of the individual become uncertain, and the flock itself comes to represent a self-organized higher order form of existence. Lopez's description of the movements of the snow geese flock makes us realize that the isolation of the individual bird would involve an alteration in the very nature of the bird. Although the change would within the context of mechanistic science be imperceptible, what would be lost would be precisely those implicate order relations that sustain the life and well-being of the particular individual as well as of the flock itself.

Lopez also claims that to watch two herds of muskoxen with an eye to the “logic” that determines their “intermingling” is to “grapple with uncertainty” (*AD* 177). Clearly, this is a reference to Heisenberg’s uncertainty principle,⁵⁵ and to the associated observer effect. The latter establishes the impossibility of observing a system without changing it, thus ultimately making the observer part of the system observed. With this realization, Best and Kellner writes, “absolute scientific detachment becomes a chimera ... and the human perception and understanding of the world ‘external’ to it are [acknowledged to be] inevitably mediated by assumptions, biases, technologies, and practices” (215). Together the uncertainty principle and the observer effect have been interpreted as expressions of the profound and disrupting realization of quantum physics that no observation can yield absolute knowledge. The very presence of a human observer will influence the intricate system of relationships observed. Drawing a parallel to the text’s representation of the scientific observations of polar bears, one can imagine the experience of being sedated, inspected by humans, and collared for tracking as doubtlessly, in one way or another, influencing the life and actions of the polar bear.⁵⁶ In this sense, Lopez’s references to quantum physics emphasize that even within the scientific fields most sympathetic to animals, like field biology, the practices through which we obtain and interpret information about animal lives are governed by a set of biases and restrictions resting on distinctly modern human conceptions of subjects and objects. Similarly, in the above, Lopez even in the mere act of watching the muskoxen seems to realize that the uncertainties associated with the dynamics of muskox movement in part result from the faulty assumption that our own distinctly human and modern conceptions of time and space are adequate means by which to frame and understand these dynamics. In describing these animals and their actions, in other words, we inevitably distort what we observe.

⁵⁵ Heisenberg’s uncertainty principle states that it is impossible to know with precision the physical properties of sub-atomic particles, which are in nature both matter and wave and which are governed by sets of physical properties known as complementary variables. The more precisely one determines the position of the particle, the less precisely its velocity can be known, and vice versa.

⁵⁶ In an essay entitled “Original Ecologists?: The Relationship Between Yup’ik Eskimos and Animals,” Ann Fienup-Riordan voices the Yup’ik’ Eskimo’s concern about the manner in which the very practices of scientific observation disturb the relationship networks of the land, and in this sense negatively influences the lives of the animals studied. Fienup-Riordan’s text is an attempt to explain how the Inuit worldview conflicts with Western ideas of wildlife management practices. In the case studied, Yup’ik Nelson Islanders explain the local decline in populations of migratory waterfowl with how “inappropriate” human activity and “general lack of respect shown the birds during the socially as well as biologically crucial nesting season” upset the nesting and opens up access to the nests to predators like foxes and sea gulls (Fienup-Riordan *Original* 178).

I believe that Lopez's characterization of quantum physics as "the natural philosophy of our age" expresses his hope that the insights born of this field of science will come to impact our general perceptions of the natural world (*AD* 178). It further reveals how quantum physics articulates what was at the time of the publication of *Arctic Dreams* contemporary postmodern concerns about the representation of the real – what Lopez in the above describes in terms of the "subtleties of fact and conception" (*AD* 178). Quantum physics, in the interpretations of Bohr and of Best and Kellner, discloses the human bias of any representation of the real, and indeed imparts the very *impossibility* of truly knowing that real.

The organicist conception of the world as "one unbroken whole" (Bohm 64) that quantum physics launches has clear resemblances to the Romantic holistic worldview. As pointed out by philosopher David Ray Griffin, quantum theory introduces to science an organismic model of the world that differs from the mechanistic one in acknowledging a form of "downward causation" in which the whole determines the agency of the individual parts (15). In arguing that quantum theory's organicist view of the world should be extended to our reflections upon the natural environment, Lopez reinforces his portrayal of 'the land' in terms of an organic being that simultaneously *determines* and *exists through* the migrations of a vast number of individual animals. The organicist imagery coexists in the text with a vision of the land as a rhizomatic network of relationships. In this sense, Lopez's aesthetics is indeed, as Paul asserts, founded on "an ecological awareness of [the world's] interrelationships and interdependencies" (Paul 98). However, this highly scientifically developed aesthetics, like the postmodern scientific paradigm on which it draws, does not (as Paul implies) ascribe beauty merely to the conception of a stable or unified harmony. Although harmonious 'ancient' or 'primal orders' like that of the migratory snow geese are present in the text, beauty is also ascribed to the mysterious uncertainty associated with the creative plurality of self-organizing, ever-evolving life forms.⁵⁷

The aesthetics of *Arctic Dreams* follows Gregory Bateson's definition of the aesthetic in being "responsive to *the pattern which connects*" (Bateson 8). By retaining focus on the individual animals and the way they interact within extended relationship patterns, Lopez constructs what might be termed a postmodern ecological vision of the arctic wilderness that

⁵⁷ A more detailed account of this aspect of Lopez's aesthetics will be given in chapters Seven and Eight.

is enhanced and supported by the text's engagement with Inuit ontology. This vision "restores *inherent reality*, hence activity and experience, to nature" (Cobb 109). Nature, or 'the land,' is in *Arctic Dreams* a conversational domain in which biological and social players are "engaged in a communicative dialogue with one another and with their environments" (White 36). It resembles a Batesonian organism-environment meta-system in which the unit of evolutionary development is not the individual organism, but a "heterogeneous pattern involving both 'organism' and 'environment'" (White 49). While evolution may in some sense be driven by the individual animals' exploration and establishment of new patterns of interaction with their environments (Bateson 116), it also relies on those less perceptible higher order patterns of relationship, exemplified in the migrations of snow geese and the defensive formations of muskox herds, that are essential to the continued survival of these animals.

The association with quantum physics enhances the sense of the mystery of the animal. It involves animals in the implicate order relationships that even the most advanced of science has been unable to describe, and the extent of which seem limitless in space *and* time. Simultaneously, quantum physics, unlike mechanistic science, acknowledges that there are absolute limits to our knowledge of the natural world. These limits have their origin partly in the nature of matter in its most basic form, partly in the impossibility of absolute objectivity.⁵⁸ What is remarkable in *Arctic Dreams* is how Lopez manages to evoke a sense of these limits to knowledge that entices our imagination. For if matter at the subatomic level possesses the complexities that gives rise to these paradigm-changing insights, what revolutionary realizations could not emerge from our study of ecosystems – those vast networks of interconnectivity of basic matter and various multitudes of complex higher beings?

Because of the way they associate animals with matter, Lopez's references to quantum physics also challenge our demarcations between matter and mind. There appears in *Arctic Dreams* no sense of contradiction in the double affirmation that animals are governed by the principles of sub-atomic matter and that animals are conscious (even rational) creatures. To the contrary, after the representation of the polar bear has deconstructed the binary opposition

⁵⁸ In this sense also quantum physics involves the (postmodern) realization of the situatedness of knowledge that Lopez advocates throughout *Arctic Dreams*, and that Thoreau in his lecture on "The Succession of Forest Trees" seems in his own way to have communicated.

between human mind and animal matter, Lopez's comparison of sub-atomic particles with animals discloses his acceptance of the idea of the material rational animal. Like all things of this world, the animal has its existence and individual agency through the network of relationships of which it is part. In its communication with other actors and actants of its environment, the animal is simultaneously mind and matter.

Let me make one final comment on Lopez's claim that quantum physics is "the natural philosophy of our age" (*AD* 178). Through this claim Lopez acknowledges the status of the traditional science of physics and the potentially paradigm-changing impact of the new discoveries of quantum physics. Yet significantly, his literary project maintains that the same insights into the nature of life in relationship can be gained through a simple application of the human sensory system. Such insights are (and throughout human history have been) available to people who seek enlightenment not through the complex scientific theories and technical equipment of quantum physics, but instead take the phenomenological approach of attentive immersion in and observation of the natural world.⁵⁹ Accordingly, the same seriousness and ardor should be applied in examining the relationships between living entities as between sub-atomic ones. Knowledge of the basic nature of interaction among these living entities is also, generally, of greater value to the individual human being than is knowledge of the interaction of sub-atomic particles. Thus Lopez in *Arctic Dreams* implies that once "the individual animal, like the individual human being" is understood to form part of "that organization ... that quantum mechanics predicts for the particles that compose an atom" (*AD* 177), the status of the science of ecology needs to be elevated – to that of the hard-core sciences of physics, or above.

⁵⁹ Also to phenomenologists the 'real world' is not an object, but rather "an intertwined matrix of sensations and perceptions, a collective field of experience lived through from many different angles" (Abram 39). Defining the phenomenological 'life-world' as "indeed, nothing other than the biosphere – the matrix of earthly life in which we ourselves are embedded," ecologically oriented phenomenologist David Abram characterizes phenomenology as "Philosophy on the Way to Ecology" (31). Abram's phenomenological inter-subjective lifeworld corresponds well with Daniel R. White's postmodern ecology, which regards "the biosphere" as a conversational domain" (32), and with Timo Maran's concept of the landscape as text (80-81).

Ecotones and evolution

Muskoxen II: the frailty of human-animal co-evolution

The concept of evolution is central both to *Arctic Dreams* and to the postmodern paradigm in science. Within the latter, discoveries of how irreversibility coupled with the instability of complex systems lead to the spontaneous creation of new orders are acknowledged to represent “genuine evolution” (Oelschlager 130). *Arctic Dreams*, through its returning emphasis on the fact that “animals are experimenters” (*AD* 168), “always testing the landscape” (*AD* 161) and “pushing at the bounds of their familiar areas in response to changes in their environment” (*AD* 168), highlights this life-evolving creativity of animal-environment relationships. Also Lopez’s accounts of the evolutionary history of the narwhal, and his descriptions of the many ingenious adaptations to environmental challenges in muskox and polar bear physiology and behavior, can be interpreted as verifications of this principle of the creativity of life. Furthermore, in describing arctic wildlife, Lopez subtly yet repeatedly reminds his readers of the great ‘cosmological processes’ of existence by juxtaposing stories of adaptation and evolution with cosmic imagery of animals in their environment. (More on this in Chapter Seven.)

In the introductory *Arktikós* Lopez reflects upon the fact that “the threads of evolution” in the Arctic are not long (*AD* 37). This makes existing patterns of relationship relatively easy to detect, but is also the reason why arctic ecosystems are especially vulnerable to the kind of human interference that holds the power to “circumvent” the natural process of evolution (*AD* 38). In the muskox chapter, “Banks Island: *Ovibos moschatus*,” Lopez takes his readers on a historical account of human eradication of animal wildlife. The narrative begins by revealing how modern ambitions and practices in the North American Arctic resulted in local or regional extermination, and ends with reflections on human influence on the North American fauna at the beginning of the Holocene. This brings to light what is to Lopez the uncomfortable paradox and fine balance of coevolution through predation. And although his account clearly displays that the power to alter or terminate animal life and development lies both with modern and pre-modern humans, his entire text can be read as a caution against the tremendous increase in this power caused by modern science and technology. Indeed, as evidenced in the case study of Banks Island muskoxen, even the accidental introduction of modernity into this vulnerable region can have dire consequences.

Significantly, the exact place by the Thomsen River from which Lopez has a view of the ‘primordial’ scene of peacefully grazing muskoxen, and can feel within him the stirrings of an old predatory mind, is a former nineteenth-century Copper Eskimo campsite. This campsite is at present archaeological excavation site PjRa-18, where archaeologists have found the “skeletal debris of about 250 muskoxen” (AD 45). As one among several similar ‘death assemblages’ of this river valley, it confirms the story of how the Copper Eskimo eradicated the muskoxen population of Banks Island as a result of their discovery of Robert M’Clure’s vessel, the HMS *Investigator*, abandoned on the northernmost edge of the island in 1853. This discovery initiated a regionally quite extensive trade in modern tools and materials with communities further south. In order to sustain this trade, the Copper Eskimo established campsites in the Thomsen River valley that allowed them to travel back and forth to the *Investigator* throughout summer. The devastating ecological effects of this trade route are revealed as Lopez informs us that “[b]y 1981, scientists had found 150 such campsites ... along the Thomsen River, along with the dismembered skeletons of about 3000 muskoxen” (AD 48). The unintended introduction of M’Clure’s abandoned vessel had, approximately forty years after its discovery, locally exterminated the muskoxen. The acknowledgement of latent predatory impulses in Lopez’s otherwise idyllic opening muskox scene exposes the potential for environmental destruction implicit in the very ‘primordial’ hunter’s relationship with the natural world that the text elsewhere celebrates. And as the expanded historical narrative of *Arctic Dreams* reveals, whereas the muskox population of Banks Island miraculously reestablished itself, in other historical and geographical contexts the populations of animal prey species in the Arctic succumbed – and will continue to succumb – in meetings with human modernity.

Although the muskoxen is, as Lopez asserts, “in evolution’s terms, innocent of us and of our plans,” at excavation site PjRa-18 “the idea of innocence founders in the evidence of an encounter between two non-Socratic societies, the cunning hunters and the most obvious and least retiring of arctic mammals” (AD 75). Evolution, like all other natural processes, consists of intricate relationship dynamics, and the history of the muskoxen at Banks Island is closely intertwined with that of the Copper Eskimo. As we have already seen, when the reverberations of these interconnections are allowed to surface in the text, the meanings of terms like *society*, *culture*, and *civilization* change. They change in ways that allow these entities to be perceived in terms of higher order patterns of communicational relationship, and which admit the existence of social relationship patterns in the natural as well as in the

cultural world. According to Bateson, with whom this organism-environment meta-systemic view originates, different order patterns of relationship are found within the different parts of living beings as well as within the parts that constitute the larger ecosystem. It is this relational systems' view that allows Lopez to depict the Arctic as simultaneously rudimentary animal *and* civilization.⁶⁰

The Arctic as ecotone

Despite its unrelenting harshness and vulnerability, the conception of the Arctic as an environment that holds the possibility of *enhancing* the process of evolution is central to *Arctic Dreams*.⁶¹ Lopez emphasizes this by defining the floe edge off Admiralty Inlet – the very place in which he brings his readers into the presence of our prehistoric relative, the narwhal – to be an *ecotone*. Defined as “a transitional zone between two adjacent communities, containing species characteristic of both as well as other species occurring only within the zone,” the ecotone to Lopez represents a “special meeting ground” (“Ecotone”; *AD* 123). The dynamic, transitional nature of the ecotone is intensified in the case of the “unique overlap of land, water, and air” that an arctic floe edge represents (*AD* 123). This is the environment to which seabirds migrate in enormous numbers to find food and open water while conditions are favorable. It is also where narwhals and seals come to find food *and* air, and where land-bound predators come to hunt them all. At the base of this complex network

⁶⁰ In a more recent article, historian Andrew Bosworth defines civilization as “a cultural infrastructure of information and knowledge that serves survival and continuity. What distinguishes a civilization from a culture is that this infrastructure, having reached a critical level of complexity, becomes autonomous” (Bosworth 9). Writing, Bosworth further claims, is “the DNA of civilization” (9). This definition of civilization seems indeed to allow an interpretation of Bateson’s organism-environment meta-system in terms of a civilization. And to Bosworth’s contention that those who, because they are “motivated to elevate traditional or aboriginal societies ... to the level of cultural complexity manifest by true civilizations,” blur the boundaries between mere cultures and civilizations (11), Lopez’s Batesonian, postmodern, and indigenous vision of ‘the land’ replies that the land is *in itself* a highly complex and ordered form of physical *and* biological text with its own autonomy and its own record of events and developments. Accordingly, the land is a civilization.

⁶¹ That a live environment is a quality Lopez ascribes to the Arctic on the basis of his extensive knowledge of this region, and not by any general presumption about the evolutionary potential of polar regions, becomes apparent if one compares his descriptions of arctic landscapes in *Arctic Dreams* to his description of the deserts of Antarctica in the essay “Informed by Indifference” (66-72). In the valley landscapes of Victoria Land, in which only a few mummified creatures are found scattered on the valley floors, Lopez reports that his “entreaties for conversation [are] met almost always with monumental indifference” (“Informed” 71). Apart from a few species of micro-organisms, nothing lives here, and Lopez feels “no security with the Earth here” (“Informed” 69).

of interactions are microscopic unicellular algae that grow underneath the sea ice: “tiny diatoms [that] feed zooplankton moving through the upper layers of water in vast clouds – *underwater galaxies* of copepods, amphipods, and mysids” (AD 123, italics mine). Thus, as Lopez points out,

It is the ice ... that holds this life together. For ice-associated seals, vulnerable on a beach, it is a place offshore to rest, directly over their feeding grounds. It provides algae with a surface to grow on. It shelters Arctic cod from hunting seabirds and herds of narwhals, and it shelters the narwhal from the predatory orca. It is the bear’s highway over the sea. And it gives me a place to stand on the ocean, and wonder. (AD 124)

The ice, Lopez here shows us, takes on the form and function of many different objects in the lifeworlds of the animals it harbors. Rather than representing frozen stasis and the negation of life, ice is in this passage presented as that which allows a confluence of resources in an environment where resources are scarce, hence allowing for the very existence of life. The ice floe holds the nodal points of a series of relationship patterns, and is in this sense a contact zone in which new forms of relationship may develop.

The ice edge ecotone or contact zone is determined by its concrete and material liminal qualities. It is precisely for the way it brings the lives of animals into contact with the very limits of their being, that Lopez finds this “border zone” to be “charge[d] ... with evolutionary potential” (AD 123):

The ecotone at the Admiralty Inlet floe edge extends in two planes. In order to pass under the ice from the open sea, an animal must be free of a need for atmospheric oxygen; the floe edge, therefore, is a barrier to the horizontal migration of whales. In the vertical plane, no bird can penetrate the ice and birds like gulls can’t go below water with guillemots to feed on schools of fish. Sunlight, too, is halted at these borders. (AD 123)

In Lopez’s description, the importance and generative potential of the ice floe lie not primarily in the sustenance it offers, but in the way it poses new challenges to the animals involved in these merging relationship networks. To successfully make a living at the floe edge, seabirds must manage three different mediums: air, water, and ice. Yet the plane of ice still remains a boundary to movement, and an impetus to further development. The nature of Lopez’s animal portrayals elsewhere in the text makes us realize that whether or not this development will occur, and what direction it will take, depends upon these birds’ particular

way of actively and intentionally exploring this border; of their acts of improvisation in response to this particular set of social and physical circumstances.

In his role as visitor and observer, Lopez the narrator partakes in the creative confluence of relationships at the edge of the ice. He is part of the network of relationships not by physical necessity, but due to his curiosity.

The edges of any landscape – horizons, the lip of a valley, the bend of a river around a canyon wall – quicken an observer’s expectations. That attraction to borders, to the earth’s twilit places, is part of the shape of human curiosity. And the edges that cause excitement are like these where I now walk, sensing the birds toying with gravity; or like those in quantum mechanics, where what is critical straddles a border between being a wave and being a particle, between being what it is and becoming something else, occupying an edge of time that defeats our geometries. In biology these transitional areas between two different communities are called ecotones. (*AD* 123)

In this passage, like in similar scenes, Lopez’s curiosity is the result of his “concern ... with what is immediate to [his] senses” (*AD* 122). Like elsewhere in *Arctic Dreams*, the phenomenological experience of the natural environment makes him open to communication with the arctic animals he encounters, and sensitive to their lifeworlds.

Another part of Lopez’s curiosity is the human intellectual curiosity, which results in quintessential insights like those of quantum physics. Parallel to the way the ice represents a barrier to what the sun can illuminate, quantum physics represents the very border of what can be illuminated by reason. Yet the explorations into the nature of the sub-atomic particles that mark the border of existence have yielded realizations unthinkable within the mechanistic scientific paradigm from which these explorations emerged. Among the most fundamental of these realizations is that being cannot be separated from the processes of becoming and of knowing. This is true at every level of order, and provides the very foundation of the new evolutionary paradigm associated with the organismic model of science.⁶² In this respect the arctic ice edge ecotone in Lopez’s text becomes a site not only for biological evolution, but also for a broader evolution of thought – about the fundamental nature of the natural world and our relationship with it – that quantum physics has prepared the ground for.

⁶² As evidenced in the writings of Karen Barad, this insight is fundamental also to the development of new materialist “[o]nto-episte-mology – the study of practices of knowing in being” (Barad 147).

Postmodern science and Inuit ontology: evolving the way we think about the Arctic

Taking Lopez's cue, let us make use of his position on the arctic ice edge to reflect upon the evolution of science in the direction of the indigenous northern hunters' perception of the world. In "Postmodern Science and a Postmodern World" Bohm points out that the "phenomena [observed by quantum physics] are evident only with highly refined modes of observation. At the ordinary order of refinement," available to scientists up until the twentieth century, "there was no evidence" that implicate order relationships existed between the whole and the parts (64). In *Arctic Dreams*, Lopez lets us see how our new insights into the life of the obscure narwhal depend upon the scientific use of hydrophones, tape recorders and spectrum analyzers. Through the juxtaposition of Inuit cosmology, *Umwelt* theory, and quantum physics, the text furthermore brings science closer to phenomenology in a way that Prigogine and Stengers describe as characteristic of postmodern science (311). As the very title of Griffin's collection of essays reflects,⁶³ the development towards an organicist postmodern paradigm within the sciences has been understood in terms of a reenchantment of science – and of the physical world. For whereas

"[t]he artificial may be deterministic and reversible [, t]he natural contains essential elements of randomness and irreversibility. This leads to a new view of matter in which matter is no longer the passive substance described in the mechanistic world view but is associated with spontaneous activity. This change is so profound that ... we can really speak about a new dialogue of man with nature. (Prigogine and Stengers 9)

The recognition of the spontaneous activity of matter not only *reanimates* a physical world formerly perceived to be inert, but also (as Bohm pointed out) questions the subject-object divide through which we have separated ourselves from this world. The new dialogue Prigogine and Stengers find postmodern science to open up between modern humans and the natural world is thus analogous to the traditional Inuit dialogue in denying the existence of a clear ontological distinction between animate and inanimate parts of this world. Defining even such basic entities as photons and electrons in terms of 'individuals', the postmodern scientific outlook (which applies highly sophisticated technical equipment in the observation

⁶³ The title of Griffin's collection of essays is *The Reenchantment of Science*.

of these entities) is in this respect only slightly more radical than that of northern indigenous hunters, which ascribes individuality to entities based on direct sensory experience of their agentic powers.

Something changes fundamentally when individuality and participation in relationship structures are assigned to physical entities previously thought of in terms of separate, inert objects. Implicit in the recognition that the whole determines the part is the premise that the part is able to respond to the structure of the whole. The individual must, in other words, be sensitive to the conditions existing within the relational structure in its entirety *and* be able to respond locally to any changes in these conditions. This is why, according to Griffin, “science is not [anymore] tied to the belief that the elementary units of nature are devoid of sentience” (28). The discovery of implicate order relationships has revealed the inadequacy of such simplified models of the world. The postmodern scientific paradigm includes references to “experiences and purposes. ... Although we cannot *see* the purposes motivating our fellow humans or other animals, assuming that such purposes play a causal role is not unscientific” (Griffin 26). In the context of Griffin’s claim, Lopez’s detailed depictions of the behavior of individual arctic animals, and of flocks of snow geese and herds of muskoxen, may be read as the poet’s attempt to bring to light both explicable *and* inexplicable aspect of this behavior, allowing for an understanding of animals that is open to that which cannot be scientifically confirmed. In the same manner, his technique of ascribing sentience and purpose to animals, although effectuated through his use of indigenous ‘philosophies of the hunt,’ should not be considered unscientific. Rather, it may be seen as representative of new developments in science.

Another understanding shared between northern indigenous hunters and scientists operating within the postmodern paradigm is that movement forms the basic of all existence. Life is always life in movement, and this movement is the creative source of evolution. Lopez reveals how central this insight is to his ecological vision of the Arctic by situating his most overt allusions to quantum physics within his chapter on animal migrations. From this point in the text he argues for the migration of ideas from quantum physics into biology – and further from these fields of science into our broader cultural conceptualizations of the natural world.⁶⁴

⁶⁴ That this transitional flight of ideas should span across distinctions between scientific disciplines, as well as the boundary separating nature from culture, is evident in the above. That it should also transcend what Latour terms the ‘internal divide’ between our Western modern culture and ‘pre-

Such a migration would aid the redefinition of the arctic natural environment in terms of a vast overarching network of relationships. Whereas this perception of the land resembles that of northern indigenous hunters, they emerge from within our own culture's system of knowledge creation, and hence cannot be dismissed as 'primitive,' naturalized, or unscientific metaphors of the world.

Within this context, Lopez's claim that "[w]e know more about the rings of Saturn than we know about the narwhal" should be read as a critique both of the focus and the position of the Newtonian scientific paradigm within Western culture (*AD* 128). To overcome this cultural condition of "Single vision and Newton's Sleep" (Blake), Lopez makes of the arctic ice edge an ecotone in cultural as well biological terms.⁶⁵ By bringing together ideas from Inuit animism, *Umwelt* theory, modern field biology, and quantum physics, *Arctic Dreams* aims for nothing less than an evolutionary quantum leap in our knowledge and appreciation of the arctic wilderness.

Lopez actively uses the essayistic form of his text to provide a wide range of viewpoints on and different relationships with arctic natural environments. *Arctic Dreams* engages in an explorative circular movement around its primary object of study (the Arctic) that parallels the text's descriptive movement around the narwhal's objectified body. Like in the text's depiction of the narwhal, the readers' knowledge of the North American Arctic grows in accordance with the increasing number of (culturally and historically contextualized) perspectives offered. Because Lopez takes great care to contextualize the different perceptual frames included within his narrative, we can grasp the insights they offer, while simultaneously perceiving the boundaries restricting them. In this sense his text is indeed a contact zone in which a plethora of perspectives – of *differences* in points of view of the Arctic – meet to challenge and evolve our perceptions about this region.

Although Coles is right when he claims the ecotone "at the dialogical edge between the self and the otherness of the world" to be of profound importance in *Arctic Dreams* (243), I would argue that the primary function of the narrator in this text is to act as the catalytic site, or nodal point, in which the strands of a larger network of ideas are brought into creative proximity. This network must include science, for no serious modern conception of the world

modern' cultures has already been established through Lopez's extensive use of Inuit cultural and environmental knowledge.

⁶⁵ The critical analyses of *Arctic Dreams* of both Cole and Browne emphasize this fact.

can or should deny its importance. But it must include science of a level of sophistication capable of exposing the limitations of the mechanistic paradigm, and of conceptualizing the radical interconnectedness of a world always in the process of becoming.

Arctic Dreams implicitly uses the development of science from its early mechanism to the organicism of quantum physics as an example of how we through new knowledge can identify the boundaries restricting our perceptions world – and aim to transgress them. In Lopez’s text the transgression of the boundaries of traditional mechanistic science has not only resulted in a view of the natural environment closer to that of phenomenology and of the indigenous peoples of the north, but also in the relaxation of boundaries between different forms of knowledge. To the extent that Lopez emphasizes the insights of quantum physics, this is done in the support of ideas of dialogical relativity and the limits to knowledge harbored by Inuit ontologies. As Lopez states in the introductory *Arktikós*:

I knew enough of quantum mechanics to understand that the world is ever so slightly but uncorrectably out of focus, that there are no absolutely precise answers. Whatever wisdom I would find, I knew, would grow out of the land. I trusted that, and that it would reveal itself in the presence of well-chosen companions (*AD* 40).

Because Lopez’s ecological vision is perceptive of the way in which the reconstructive postmodern sciences have moved towards an idea of organicism that has much in common with the ontology of northern indigenous hunters and at the same time resembles the organicism of Romanticism, Lopez does not have to choose between these approaches. Instead, by bringing together different lines of thought and revealing the limits to their insights, his text seems to me to aim for a natural or ‘wild’ evolution of our how we as modern Westerners perceive the natural world in general, and the Arctic in particular. Whereas this evolution would certainly be influenced by the approaches given emphasis in the text, the fulfillment of its potential and the direction of its outcome are ultimately uncertain. However, should it occur, this evolution would give rise to a distinctly postmodern conception of wilderness which is dialogical, ecological, and holds “a profoundly evolutionary perspective on cosmic process” (Oelschlager 348). As this evolutionary perspective by necessity recognizes human entanglement in cosmic processes, Oelschlaeger finds this “postmodern idea of wilderness” to hold the potential for “a conscious reconciliation with the origin of all things physical, biological, and cultural” (349). In advancing a set of ideas from which new materialists would later develop their theories on the radical natural-cultural physical-semiotic interconnectivity of the world in its becoming,

Arctic Dreams does in my opinion take a significant first step towards a postmodern and new materialist perception of the arctic wilderness.

Chapter Seven: In dialogue with the land: Romanticism versus arctic materiality

In the preceding chapters I have discussed some of the ways in which *Arctic Dreams* employs postmodern ideas of heterogeneity to present the Arctic in terms of a network of relationships that includes non-human (and even inanimate) others, and thus to advocate an understanding of arctic landscapes as civilizations. I have argued that Lopez uses references to quantum physics and a re-constructive postmodern paradigm in the sciences to establish a postmodern vision of a radically heterogeneous natural environment in which individual animals engage in the playful and always ongoing processes of shaping the world. However, to consider only the postmodern tendencies of *Arctic Dreams* would be to disregard the text's clear ties to the Romantic tradition. Environmentally concerned and conservationist in attitude, *Arctic Dreams* shares the Romantics' concern with environmental degradation, and employs an organicist image of the Arctic to counter the mechanistic worldview with its affiliated ethos of domestication and control over nature. The Romantic lineage of the text has been well accounted for by literary critics like Sherman Paul and Scott Slovic, who have emphasized similarities between Lopez's search for enhanced awareness of the natural world and the search of earlier Romantic writers for harmony with nature.

Slovic's analysis of *Arctic Dreams* highlights how Lopez uses the personal anecdote as a narrative tool through which he makes the exotic landscapes of the Arctic familiar to his readers, thereby enhancing our general awareness of the natural world. Positing this more generalized awareness as the ultimate goal of *Arctic Dreams*, Slovic argues that the scientific depictions of arctic animals and the arctic physical environment, which take up much of the first half of *Arctic Dreams*, are "essentially digressive" to the text (*Seeking* 158). In his interpretation, the way the "natural" or "genuine particulars" of the Arctic are "immediately transformed into 'symbolic particulars'" expresses a Romantic symbolic re-association with nature through the workings of the mind (*Slovic Seeking* 156).

From a northern critical perspective, Slovic's disregard for what is specifically arctic in *Arctic Dreams* is problematic. It does justice neither to the text's long and detailed scientific descriptions of arctic ecosystems nor to the narrator's personal experiences of animal encounters. Both are used by Lopez to generate in his readers an introductory understanding of the complexities of arctic ecosystems, and of animal points of view on the

landscapes presented. The nuanced and ecologically multitudinous perspective that emerges is, in my opinion, fundamental to the text's overall poetic project. One can further argue that this factual part of the text strengthens that very "respect" for the actual, physical "subject matter" of the text that Slovic praises (*Seeking* 148), as well as its respect for a modern scientifically informed audience.

The following two chapters of this dissertation investigate the meeting and interplay of Romantic and postmodern strands of thought in *Arctic Dreams*. By bringing the Romantic and postmodern into proximity, the text itself represents a kind of contact zone or ecotone between old and more contemporary ways of thinking about the environment. My analysis will consider the effects of this meeting of ideas, particularly with respect to the critique of previous – and often Romantic – conceptions about the Arctic that the text engenders, and the new ways of thinking about the region that it allows. Whereas former chapters focused on the representation of *animals*, these last two chapters will involve a consideration of the aesthetics involved in Lopez's presentation of the *physical environment* of the North American Arctic, and the extent to which these presentations are related to the Romantic literary tradition. In this sense, what is under study in these chapters is *Arctic Dreams*' implicit dialogue with literary Romanticism.

Whereas Chapter Eight will concern Lopez's reworking of the aesthetics of the arctic sublime, the current chapter will consider the resemblance of the text's many catalogues of arctic natural phenomena to the catalogues of the American Transcendentalist tradition. Both of these Romantic aesthetic forms imply a particular positioning of the human subject in relation to the natural world. In the discussions to follow I will show how this positioning changes as Lopez reworks these aesthetics from the point of view of a twentieth-century environmentalist. I will also make some comments on how this change in positioning is associated with a change in the status of the narrator/poet within his text. In order to do justice to the way the interplay between Romantic and postmodern aesthetics refashions the text's representations of arctic materiality, my analysis will open by some reflections on Lopez's application and modification of the Romantic aesthetics of creative polarities.

Romantic aesthetics meets arctic materiality

In Chapter Six, we saw how quantum physics not only re-united time and space, but also re-animated the world of matter, undid the very possibility of a clear distinction between the

observing subject and the observed object, and advanced an organicist vision of the world. Quantum physics thus in some sense succeeded in the very reunification and ‘re-enchantment’ of the world that was the aim of the literary movement of Romanticism. With Lopez’s argument that the lives of animals harbor the same complexities and are governed by the same principles of energy distribution as sub-atomic particles, *Arctic Dreams* presents a holistic view of the natural environment that seemingly proposes, with Emerson, that “[e]ach particle is a microcosm, and faithfully renders the likeness of the world” (Emerson *Nature* 21). In this sense too Lopez’s text is simultaneously Romantic and postmodern.

In quantum physics the unity of the world arises *from* and *within* the material. In literary Romanticism this unity was found in a transcendental realm *beyond* the material – in the world of mind, and of God. As noted in Chapter One, this engendered a vision of the material world as both subservient and reducible to the world of mind, and ultimately to the implicit anthropocentrism of literary Romanticism. In the attempt to represent the principle of “cosmic unity-in-diversity,” a writer like Emerson employed his poetic Imagination in the feat of “showing the convertibility of every thing into every other thing” (Buell *Transcendentalism* 156; Emerson *Conduct* 304). The following Transcendentalist catalogue, in which Emerson celebrates the metamorphosis of nature and its transformability into a series of linguistic metaphors, expresses this beautifully:

The world is a Dancer; it is a Rosary; it is a Torrent; it is a Boat; a Mist; a Spider’s Snare; it is what you will; and the metaphor will hold, & it will give the imagination keen pleasure. Swifter than light the World converts itself into that thing you name (*Journals* 23)

Through this catalogue Emerson captures and celebrates a sense of the “cosmic opulence and rapidity of metamorphosis” inherent in nature, while simultaneously disclosing in every natural form, and in every word employed by the poet, an “instant activity of mind” (Buell *Transcendentalism* 156; Emerson *Letters* 17). In this sense the devaluation of the context of natural particulars for the greater good of transcendental insights finds its perfect expression in Transcendentalist catalogues like the above.

In *Literary Transcendentalism*, Buell provides a detailed account of the Transcendentalists’ use of catalogue rhetoric, which he defines as “the reiteration of analogous images or statements in paratactic form, in prose or verse” (166). Unlike the rational indexical or classificatory listings that helped arctic explorers establish the scientificity and authority of their narratives, the Transcendentalists through their catalogic

rhetoric gave a distinctly aesthetic and poetic representation of the world. Through a series of tropes, a “barrage of aphorisms” or a “torrent of emblems,” their catalogues celebrated the world in its abundance of forms (Buell *Transcendentalism* 166, 170). With no guiding rational principle, these catalogues evoked sometimes “an impression of vigor and excitement,” sometimes a feeling of “rambling and redundancy” (Buell *Transcendentalism* 166).

By taking their readers through an unpredictable and associative succession of powerful but seemingly unrelated individual images, poets like Emerson aimed to excite their readers’ imagination and to provide a sense of the radical openness of the natural creation.⁶⁶ Beneath this radical openness, however, the catalogue always expressed the metaphysical order of the universe (Buell *Transcendentalism* 169). Thus through the catalogue, the poet showed a heightened sensibility towards the relationships of the natural world that reflected the extent to which his own Imagination took part in the Universal Spirit. The poet’s Imagination was, in other words, the true unity of the catalogue. The central role played by the poet in simultaneously “liberating” and shaping the profusion of the forms of this world into a well-structured “poem as heterocosm” is what has caused Buell to describe the writings of the Transcendentalists to be “the first instance in American literature of anything like an organized effort to articulate and act out the idea of the poet as a *world-creator*” (*Transcendentalism* 142, italics mine).

The role of the narrator or poet in constructing the text’s organicist image of the world is much less prominent in *Arctic Dreams*. Whereas Romantic poetry is highly subject-centered and affective, *Arctic Dreams* is subject-centered only to the extent that we find moments of lyrical reflection interspersed throughout Lopez’s narrative. Otherwise the text presents facts about arctic natural phenomena and natural history in the neutral language of prose. In this sense the text is more clearly reminiscent of nineteenth-century exploration narratives than of texts of the Romantic literary tradition.

The nineteenth-century arctic exploration narratives to which *Arctic Dreams* refers present catalogues of a quite different kind than those of the Transcendentalist tradition. As noted in Chapter One, nineteenth-century exploration narratives offer conjunctions of

⁶⁶ Buell’s discussion of the Transcendentalists’ use of catalogue rhetoric focuses mainly on the works of Ralph Waldo Emerson, Walt Whitman, and Henry David Thoreau, but examples from works of Amos Bronson Alcott and Cyrus Bartol are also included (*Transcendentalism* 165-187).

scientific and poetic forms of representation that later texts of the nature writing genre actively experimented with and refined. Within such narratives of exploration, aesthetic landscape descriptions are interspersed within factual travel reports, complete with scientific information about the geography, topography, geology, meteorology, flora, and fauna of the regions traveled. Much of this information is given in catalogue form: either as integrated parts of the prose narrative, or in the form of lists or tables scattered within the main body of the text or assembled in indices at the very end. Such catalogues take the form of scientific listings of quantified data or literal descriptions of natural phenomena, developed for the purposes of scientific inventory or of classification.

Arctic Dreams resembles nineteenth-century arctic exploration narratives in presenting a series of catalogues, some of which take the form of indexical or classificatory listings, others of which occur in prose form within the narrative itself. Like the text itself, these catalogues can be characterized as hybrid forms in which scientific information is mediated through poetic language. In the following we shall see how Lopez through a reworking of the Transcendentalist catalogue and a continued focus on physical phenomena sways the aesthetics of his text away from truly Romantic and toward more materialist representations of arctic natural environments.

Operating in a border zone between Romantic and postmodern/post-humanist conceptions of the world, *Arctic Dreams* seeks alternative ways of relating to the North American Arctic that may rely on Romantic aesthetics but that circumscribes the anthropocentrism of literary Romanticism. How, then, are we to read the many catalogues of natural facts about arctic animals and arctic physical phenomena that *Arctic Dreams* presents? How do they adhere to or deviate from catalogues in the scientific and in the Romantic tradition, and what is their function within the text? Lopez seem to share with his Romantic predecessors the conviction that the world cannot be known through the consideration of scientific facts alone. This is evident both in his critique of the intellectual failure involved in our culture's tendency to approach any unknown tract of land through scientific assessment only (*AD* 228), and in the way his reflections on the nature of the land bring aesthetic dimensions to his narrative. Nonetheless, as will be evident in the following, this aesthetic dimension serves a different function in Lopez's late twentieth-century Arctic than it did to temperate-zone Romantics a hundred and fifty years earlier.

Darkness and light: creative dichotomies and the middle ground

Lopez employs a range of distinctly Romantic forms of aesthetic representation in his depiction of arctic landscapes. Among these we find rare examples of personification of physical entities and more common evocations of the natural sublime and of aesthetic pairs of opposites. Before proceeding to discuss the details of the seemingly Transcendentalist catalogues of *Arctic Dreams*, let us take a look at how Lopez in this text plays with Romantic aesthetizations of the creative polarities of the world.

Literary scholars M. H. Abrams and Eric G. Wilson have both demonstrated how Romantic poets who sought the sublimity of the glaciated landscapes of the European Alps discovered in the advancement and recession of the glaciers the constant and rhythmical interaction of the world's destructive and creative forces (Abrams *Natural* 106; Wilson 124). The idea that the world consists of mutually interdependent opposites is fundamental also to *Arctic Dreams*. Lopez opens his Preface with the assertion that “[b]eyond a regard for the landscape itself, this book finds its origin in two moments” (*AD* xix). The first of these moments is a summer tundra walk on Ilingnorak Ridge. Watching ground-nesting birds in the midnight sun, Lopez here presents a timeless scene of “benign” and “forgiving” sunlight; sunlight “run through with compassion in a land that bore so eloquently the evidence of centuries of winter” (*AD* xx). The way the eggs “glow[] with a soft, pure light” highlight the association, in this scene, between light and the fragile generative forces of life (*AD* xx). This opening moment is immediately followed by a second, counterpointing moment in which Lopez spots the grave of one Lieutenant Adolphus Greely, dead from starvation on an expedition to Ellesmere Island that began in 1882. The scene occurs in the darkness of night on a churchyard in Michigan; a darkness that carries associations to the death and despair experienced by Greely and his company in the Arctic. Through the juxtaposition of these two scenes, Lopez from the very opening pages of *Arctic Dreams* presents a dichotomy of light and darkness, life and death that permeates the text in its entirety. It thus seems that *Arctic Dreams* establishes what Abrams and Wilson argue to be an aesthetic dichotomy evoked by earlier Romantic poets.

The dichotomy of light and darkness is in *Arctic Dreams* simultaneously symbolic and physical. Taking his cue from Scoresby's account of the black-and-white contrasts of arctic landscapes, Lopez provides a wealth of his own examples of this contrast to complement and expand on the iconic one of “[s]unlit icebergs on a matte-dark sea” (*AD* 240). Examples like

arctic hares feeding on a shadowed hillside. Or any of the white summer birds against dark hills or soil – ivory gulls and tundra swans. Or the other way around – black guillemots flying over the white ice. Or any of the arctic birds in which the black-and-white pattern is so apparent – snowy owl, snow bunting, dovekie, common loon, snow goose. The black bowhead with its white chin patches. Walrus on an ice floe. Leads in the spring ice. (*AD* 240-41)

By extending the black-and-white dichotomy beyond the features of the landscape itself, Lopez again makes the point that animals both *belong to* and *constitute* the landscape. To the extent that the colors white and black signify the forces of life and death, images of white hares on a dark hillside or black guillemots flying over white ice illustrate the manner in which the lives of the animals *in* the landscape partake of the creative dichotomy of life and death. Another black-and-white feature of Lopez’s Arctic are polynyas: dark-colored sites of permanently open water in the sea ice that offer refuge to overwintering animals, and that seem like oases of life in the white desert of arctic winter. Should they freeze over, these refuges will become death traps. In thus associating the contrast between life and death with the physical contrast between the colors white and black, Lopez metaphorically expresses this dichotomy to be an integral part of the lives of arctic animals and their landscapes.

Lopez insists that “this edge between life and death . . . , an edge the annual formation of sea ice sharply accentuates,” is integral to the nature of northern ecosystems (*AD* 224). This point is emphasized in a scene we have already visited in which we find Lopez at the floe edge at the mouth of Admiralty Inlet. In this ecotone environment, animals face challenges of boundary crossings that may cause behavioral adaptations and – over time – new forms of life to evolve. The boundaries mentioned are those between air and water, sea and ice, *and* between light and darkness. Lopez emphasizes that “[s]unlight, too, is halted at [the] borders” of the ice floe (*AD* 123). In so doing, he associates the edge between light and darkness, life and death, with the creative power of evolution. Like light and darkness itself, the evolution of forms caused by their interplay is concrete and physical, not symbolic.

When Lopez acts like a Romantic poet aiming for a vision of the landscape in its entirety, he searches for and brings out this creative opposition between light and darkness, life and death. Hence we find him in the darkness of winter trying to “remember the spring: light so brilliant the eyelid by itself is no protection” (*AD* 242). Similarly, “[i]n the middle of summer, lying on [his] back on the warm tundra” Lopez thinks about how “[w]inter, with its iron indifference, its terrible weight, explain[s] the ecstasy of summer” (*AD* 241). In this way Lopez emphasizes that light and darkness, life and death, are not purely antagonistic forces,

but part of the same phenomenon. Even in the ‘muskox idyll,’ that “timeless” summer afternoon Lopez spends watching muskoxen in the Thomsen River Valley, do we find this dichotomy. For in the midst of the now luscious, “guileless” land, the tundra melt ponds hold, “beneath the surface of the water, ... cores of aquamarine ice, like the constricted heart of winter” (AD 44). That this phenomenon is associated with a generative or creative principle is highlighted again in Lopez’s assertion that “[t]here is something of the original creation” in this scene (AD 44). As discussed in Chapter Six, the muskox idyll is one in which Lopez recognizes his own repressed predatory instincts and the human capacity to exterminate other species. The scene thus associates the activity of hunting with the life-generating dichotomy that Lopez finds so characteristic of arctic landscapes.

At the same time as Lopez presents us with the black-and-white dichotomies of arctic landscapes, he also cautions against the dangers of maintaining a dualistic perspective of the world. One of these dangers concerns the way phenomena of ‘the middle ground’ – phenomena situated towards the center of a continuum of forms – tend either to be distorted to accommodate the existing dichotomy, or simply to be sacrificed in the name of categorization. Another involves the tendency identified by Plumwood to turn dualisms into hierarchies, and to *background* or deny the least valued of the oppositional pair. Also the oppositional pairs that constitute Lopez’s arctic dichotomies seem subject to this tendency. In an arctic context, Lopez claims, there is a “tendency to register only half of what is there in a harsh land, to ignore the other part” (AD 241).

The dim-lit ocean beneath the ice, so difficult to access, remains unknown, as do the winter lives of many of the animals and plants. The ice life of the ribbon seal is known, but not its pelagic life. The beautiful throat-singing of the Eskimo, *katajak*, is heard by the winter visitor but not the shouts of a shaman bound by his helpers with walrus-hide cord and ‘traveling’ in a trance. Caribou moving through the Ogilvie Mountains like wood smoke in a snowstorm, that image, but not the caribou cow killed by ravens in her birthing.

I would remember a flock of jet-black guillemots, streaking low over the white ice.
(AD 241)

As evident from Lopez’s examples, those unregistered ‘other parts’ of the dichotomy either lie beyond scientific knowledge, or we choose to ignore them because we, in our ‘civilized’ sensitivity, perceive them to be beyond rationality or beyond the boundaries of human morality. It is as a counterpoint to the way these dualistic phenomena are rendered incomplete by our (more or less) willful neglect or *backgrounding* of its subordinate halves that Lopez at the end of the passage posits a visual image of the complete aesthetic oppositional pair. As if

again to underscore what part of the human-animal dualism tends to disappear from view in our own anthropocentric culture (and certainly did so in arctic narratives like Parry's), Lopez ends the passage above by bringing forward the fleeting presence of black animals against the white background of ice that, for a moment, render them visible. With this image Lopez at one and the same time signals his own awareness of the complete dualistic pairs of darkness and light, the visible and the invisible, the rational and the irrational, the pleasing (the good) and the terrifying (the bad), and his conviction that only with a heightened aesthetic awareness of animals can a comprehensive view of the landscape be obtained.

To counteract our tendency to rely upon simplifying and distortive dichotomies in our descriptions of the land, Lopez asserts that “[t]he land retains an identity of its own” (*AD* 228). In order to begin to understand it, we must “try to sense the range and variety of its expression – its weather and colors and animals” (*AD* 228). “The monotonic surfaces of the Arctic,” he reports, “create frequent problems with scale and depth perception, especially on overcast days” (*AD* 239). To explain this phenomenon, Lopez refers to William Scoresby, who in his *Account* pointed out that the “high-contrast, black-and-white coasts” of the Arctic leaves the human eye without the middle tones of color with which it usually resolves “two-dimensional vistas into three dimensions” (*AD* 240). And just as his inclusion of ecological facts has corrected an overly simplified view of the arctic natural environment, Lopez in the “Ice and Light” chapter proceeds to correct its simplified color-scheme. In addition to pointing out the “[a]rresting color” at times found in the arctic sky (of which the *aurora borealis* is an example), he also makes us aware of “the myriad greens, reds, yellows, and oranges of lichens” that exist on microscopic scale in the seemingly grey “monotonic rock of the polar desert,” and of the small dots of “brilliant coloring” offered by wildflowers and berries in the warmer seasons (*AD* 229). Once these spots of color in the landscape of the middle ground (between the immediately near and the far horizon) are recognized, the visual distortion is rectified, and the landscapes of the Arctic can regain their true depth. Through his attentiveness to the minute characteristics of the land, through literally adding a little color to its black-and-white contrasts, Lopez performs an aesthetic correction of the simplified dichotomies often employed in Western representations of the Arctic.

The aesthetic correspondences Lopez presents in *Arctic Dreams* expand and complement the text's more materialistic models of relationality. At times such correspondences are reminiscent of the Romantics' more esoteric search for unity, like when Lopez finds the similarities in color between the *aurora borealis* and a weathered caribou

bone on the tundra to be part of what “hold[s] a landscape together” (*AD* 229). However, this single reference to a purely aesthetic form of correspondence is immediately followed by a reference to the aesthetic and functional similarity between “a surfacing guillemot and an Eskimo man rolling upright in his kayak” (*AD* 229). The latter comparative image is the result of Lopez’s unique combination of the poet’s visual sensibility and the hunter’s attentiveness and sensitivity to the lifeworlds of other living beings, and establishes an aesthetic connection between two ways of being-in-the-world with at least momentary resemblances. Empirically accountable, this aesthetic perception of correspondence spans discursive, physical, and species boundaries, but without establishing affinity with any ‘primary’ or transcendental cause beyond the tangible landscape itself.

There are cultural and symbolic overtones to the aesthetic ‘correction’ Lopez performs of the simplified dichotomies of the Arctic. His representation of arctic nature and arctic culture in terms of one indivisible nature-culture unit allows him to extend his critique of Western conceptions of the land to include a critique of Western conceptions of arctic indigenous cultures. His argument is that by relegating the Inuit to the category of the cultural and primitive Other, we have relegated to these Others characteristics of our civilized Selves we have problems coming to terms with. Thus we tend to be quick to judge as immoral what we see as the “excess killing [of wild animals] at the hands of Eskimos, in modern times” (*AD* 242). However, as Lopez establishes in the ‘muskox idyll,’ the predatory or violent side of humanity cannot be “refined away by civilization” (*AD* 242). Criticizing Westerners for having a wrongful understanding of the concept of the primitive, Lopez asserts that the truly primitive – those “savage hungers [and] ethical dereliction” that we so easily associate with the hunter’s acts of violence against other animate beings – exists as an integral part of the phenomenon of the human (*AD* 243). Although modern humans pretend to have left these qualities behind in a pre-modern state from which we have progressed, the inclusion of the anecdote of the “carnage of wealth” witnessed by the whalers aboard the *Cumbrian* in Lancaster Sound in the summer of 1823 reveals that this negative aspect of human morality is part of the modern – and of modern Western culture’s history in the Arctic (*AD* 6). On the basis of this analysis Lopez praises the Inuit for consciously recognizing and dealing with this aspect, rather than pretending it does not exist. With this recognition of our propensity to violence, of the ‘darker aspect’ of human nature, he believes, comes the ability to confront it; to “reach[] for the throat of darkness” (*AD* 243). To recognize this is to Lopez key not only to

the art of living “a full life,” but also to a more conscientious and cautious approach to the natural world (*AD* 244).

In *Arctic Dreams* Lopez broadens a characteristic feature of arctic landscapes – the physical dichotomy between darkness and light – into an aesthetics that includes its animals. At the same time he reveals the dangers of turning a physical dichotomy into a symbolic one by pointing to the way this symbolism serves to hide, silence, or render non-existent that which strikes us as irrational, uncivilized, or somehow uncomfortable. The aesthetics of darkness and light thus brings an ethical dimension to Lopez’s arctic landscapes. In this *Arctic Dreams* resembles earlier Romantic texts that found in nature the expression of moral laws. But unlike the Romantics, whose poetry often involved a religious quest for redemption that valorized the individual’s transcendence of moral darkness as the ultimate sign of spiritual maturity (Abrams *Natural* 113, 119-121), Lopez associates true morality and maturity precisely with the *recognition* of the morally darker aspects of our human nature – and of our actions. His aesthetization of arctic landscapes represents a movement not toward physical and symbolic light, but toward the recognition of paradox and of our tendency to avoid dealing with the full and complex reality of natural and cultural phenomena.

The arctic catalogues of *Arctic Dreams*

An arctic catalogue in the Transcendentalist tradition?

Earlier in this chapter I mentioned personification to be one of the Romantic forms of representation employed by Lopez in *Arctic Dreams*. I here want to add the qualification that Lopez’s use of this literary technique is rare indeed. Nonetheless, in presenting icebergs, Lopez makes use of that “reading of passion, life, and physiognomy into the landscape” so characteristic of Romantic literary discourse (Abrams *Mirror* 55). Encountering these structures for the first time in the relatively southern Strait of Belle Isle, Lopez describes them in terms of “stragglers fallen behind an army, drifting, self-absorbed” and “immensely sad” (*AD* 206). The anthropomorphism of his iceberg depictions becomes even more evident as Lopez proceeds to present the icebergs of the Northern Labrador Sea as having milk-blue “veins” created by melt-water, new “face[s]” resulting from recent fractures, or to take the shape of “a human forehead against the sky” (*AD* 207).

More important to the text’s poetic vision than these personifications, however, is Lopez’s presentation, in the chapter entitled “Migration: The Corridors of Breath,” of ‘the

land' itself in the form of a living being. This is a living being whose breath and life is substantiated through a vast and dynamic network of animal migrations.

The passage leading up to Lopez's organicist image of the Arctic involves one of several catalogues presented in the text, among which could be mentioned catalogues of colors and light phenomena; of animal life in the Bering Strait; of ice forms and the forces of their formation; of how different animals make use of snow and ice conditions; and of different Inuit peoples of the North American Arctic, their traditional food and clothing. In reading the text, it is easy to skim through these as mere listings of those 'arctic particulars' Lopez wants us to become familiar with. However, if we pay close attention to the great catalogue of animal movement that introduces Lopez's organicist vision, clear resemblances to the catalogues of the Transcendentalist tradition manifest themselves.

Lopez's catalogue of animal movement begins by a careful description of the "[s]everal different kinds of migration [that] are going on in the Arctic at the same time" (*AD* 160) in response to environmental dynamics on continuums of geographical scale (from the continental to the local) and of time (from the millennial to the diurnal). Lopez then goes on to ponder how,

[w]hen one considers all these comings and goings, and that an animal like the muskox might be involved simultaneously in several of these cycles, or that when the lemming population crashes, snowy owls must fly off in the direction of an alternative food supply, and when one adds to it the movement of animals to the floe edges in spring, or the insects that rise in such stupendous numbers on the summer tundra, a vast and complex pattern of animal movement in the Arctic begins to emerge. Also to be considered are the release of fish and primitive arthropods with the melting of lake and ground ice. And the peregrinations of bears. And a final, wondrous image – the great ocean of aerial plankton, that almost separate universe of ballooning spiders and delicate larval creatures that drifts over the land in summer. (*AD* 160)

Although ecological in its focus, this catalogue of environmental relationships is systematic only at the outset. Lopez begins by identifying concrete nodal points in the network of relationships found within the land: those already described ways in which the muskox supports the other animals of the tundra community, and the well-established connection between fluctuations in local rodent populations and responses in the populations of predatory birds like the snowy owl. Towards the middle, Lopez's catalogue follows a flickering pattern of thought induced by the narrator's sense of the overwhelming diversity of the arctic animals' responses to each other and to their physical environment. Ending with a "wondrous

image” of a spatially open-ended “universe” of insects, Lopez’s catalogue arguably displays that sense of “[e]xuberance, profusion, endlessness, [and] surprise” that is to Buell the hallmark of Transcendentalist catalogue rhetoric (Buell *Transcendentalism* 170).

Neither indexical nor classificatory, and more truly aesthetic and associative than logical, Lopez’s catalogue functions in much the same manner as the Transcendentalist catalogues. What makes the narrator move from one particularity to the other – from reflections on the muskox to the lemming (one of few animals that the text has *not* previously associated with the muskox’s ecological niche) and then onto animals at floe edges and finally to insects on the summer tundra – is hard to establish. That is, it is hard to establish until Lopez himself reveals that this is an illustrative catalogue of animal particulars that centers on the more general and abstract concept of animal movement. In this manner Lopez’s catalogue possesses the same underlying coherence as the illustrative catalogues of the Transcendentalist tradition (Buell *Transcendentalism* 176). Even after identifying this underlying and more abstract concept, however, Lopez cannot stop the associations from flowing towards even more obscure and seemingly unrelated particulars, all to the effect of broadening our understanding of how every entity of this ecosystem is caught up in a vast network of life in movement. His contemplations on animal movement thus engender a vision of the great flow and unity of life not unlike those of Romantic poets before him.

In Chapter Six we saw how Lopez creates a sense of the dynamic nature of arctic ecosystems by associating animal movement with evolution. The association works partly through his use of the image of that “almost” – but not quite – “separate universe” of airborne spiders and larva drifting over the tundra (*AD* 160). This universe imagery lends a *cosmic* (not transcendental) perspective to Lopez’s reflections that serves to unify the text’s multitude of animal lifeworlds and biologically determined conceptions of time into one overarching, evolutionary perspective.⁶⁷ It further associates the cosmic universe with life. The image of the “great ocean of aerial plankton” (*AD* 160) refers to the chapter “Lancaster Sound: Monodon monoceros,” in which a catalogue of floe edge food webs include the living “underwater galaxies” of zooplankton (*AD* 123). As we have already seen, the floe edge presented in this chapter is itself an ecotone; a border zone in which “the mingling of animals

⁶⁷ This catalogue *precedes* Lopez’s overt references to quantum theory and his comparison of animals with sub-atomic particles. Lopez has in this part of the text not yet introduced ‘the unity of the world’ according to quantum physics.

from different ecosystems” creates “evolutionary potential” (*AD* 123). Lopez in this chapter also makes the narwhal (to which most of the chapter is dedicated) an example of the great and unremitting force of evolution by emphasizing its common ancestry with humans. The universe, evolution, life: all come together in the image of “narwhals [a]sleep on the flat calm sea, as faint on the surface as the first stars emerging in an evening sky” (*AD* 140).

By coupling his reflections of animal movement in the Arctic to this more extensive use of universe imagery, Lopez’s catalogue becomes a sort of microcosm reflecting the order of the macrocosm, just like the earlier Transcendentalist catalogue did. It also resembles the latter in what Buell would call its “democratic” or egalitarian tendencies: its quality of assigning to “each line or image ...equal weight in the ensemble” (*Transcendentalism* 167). In Lopez’s catalogue, no entity is too miniscule, obscure or insignificant to be included. In this manner the catalogue celebrates the vitality and life of a natural environment traditionally associated with inorganic vastness and emptiness (Loomis 110).

A different poet-environment relationship

Yet despite these obvious similarities, Lopez’s use of the catalogue rhetoric differs in significant ways from those of his predecessors. One clue signaling this difference is Lopez’s claim, at the end of his catalogue of animal peregrinations, that

[t]he extent of all this movement is difficult to hold in the mind. Deepening the complications for anyone who would try to fix this order in time is that within the rough outlines of their traditional behaviors, animals are always testing the landscape. They are always setting off in response to hints and admonitions not evident to us. (*AD* 161-62)

The relationships described in this catalogue all exist in the arctic natural environment, and Lopez forestalls any notion that the vast and sometimes excessively obscure network in which they participate can be thoroughly known by any human observer. This is reaffirmed through the way the concept of animal movement is associated with the forces of evolution; with animals “testing the landscape” for novel ways to use it, over time creating new patterns of movement and possibly new animal forms. Through their agency, their intentional responses to the world and its creatures, individual animals drive evolution. Thus the intellectually stimulating diversity, unpredictability, and radical openness of this catalogue of animal movement is not something the poet generates as a result of his intuitive insight into hitherto undiscovered relationships of a transcendental order. Neither is it presented as something that exists primarily to provide for the human a sense of his/her place in the order of things. This

is evidenced in the fact that the cosmic imagery in *Arctic Dreams* exists independently of, and is never merely the reflection of, Lopez's sense of his own human nature. Even at the ice floe ecotone, in which the ice allows Lopez to be included in the web of relationships by providing him with a place to "stand on the ocean, and wonder" (*AD* 124), his report retains its ecocentric focus. Lopez's knowledge of this environment remains empirical and self-admittedly limited. Thus in *Arctic Dreams*, unpredictability and radical openness exist as qualities of the land. *In nature* is the great source of creativity, and the human mind must struggle to take in the evidence of this creativity – even that reduced part available to our perceptions. The land, in Lopez's more contemporary vision, is *template for* rather than *result of* the poet's mind.

Although the seasonal abundance of animals moving through the region makes Lopez describe the Arctic in terms of a living being, this is less an expression of the poet's emotional or imaginary response to the phenomenon than it is an inscription of a (phenomenological) metaphor with which to describe it. And like elsewhere in this first and more empirically focused half of *Arctic Dreams*, the metaphor is granted value only to the extent that it confirms what is observable. In this manner the influence between matter and mind is in this text more unidirectional than in former texts of the Romantic tradition.

Accordingly, of the "two landscapes – one outside the self, the other within" that Lopez presents us with both in *Arctic Dreams* and in his essay "Landscape and Narrative" (64), the exterior one takes precedence. Unlike in earlier texts of the Romantic tradition, the land – or matter – ultimately determines the concordance between matter and mind, turning "the interior landscape [into] a metaphorical representation of the exterior landscape" (Lopez "Landscape" 71). "The interior landscape," writes Lopez, "responds to the character and subtlety of an exterior landscape; the shape of the individual mind is affected by land as it is by genes" ("Landscape" 65). In comparing landscape and narrative, Lopez finds parallels in the way a narrative may contain layers of meaning evident not even to the narrator him/herself, and the way the land holds relationships that are not all visible to the human eye. The parallel applies to good or true narratives (characterized by sharply observed details, precise contextualization, and a truthful rendering of relationships [Lopez "Landscape" 63-69]) and speaks to the power of the natural world to form our mental processes.

Precisely this power of the natural world to give shape to our mental processes represents in *Arctic Dreams* another, non-scientific argument for the contextualization of all knowledge. As the Arctic time and again fails to comply with Lopez's 'southern

expectancies' of what a landscape should be, he realizes the extent to which his own account of this region is culturally determined – even at the level of phenomenological experience. Thus rather than acting, in the Romanticist trope, like a combined mirror and “lamp” through which the world becomes “bathed in an emotional light [the poet] himself has projected” (Abrams *Mirror* 52), Lopez uses his poetic imagination to reveal how a phenomenological attentiveness towards the world ‘out there’ can illuminate and correct our faulty preconceptions of this world. He further recognizes that the patterns of relationship *he* perceives in the Arctic might deviate from the patterns perceived by his Inuit hunter companions: “The patterns, I know, could be different from ones I imagined were before us. There could be other, remarkably different insights” (*AD* 203). Different cultural and historical contexts tend to produce different interpretations of the same landscape ‘text.’ Whereas attempts to embellish or ‘improve’ such interpretations by installing metaphors untrue or uncalled-for would block rather than bring out alternative interpretations and/or ‘hidden’ relational patterns, openness to other cultural perspectives and ontologies could correct and nourish them. This is why, to Lopez, “[t]o inquire into the intricacies of a distant landscape ... is to provoke thoughts about one’s own interior landscape, and the familiar landscapes of memory. The land urges us to come around to an understanding of ourselves” (*AD* 247).

Lopez is in *Arctic Dreams* in possession a poetic imagination that resembles that of former Romantic poets, but he employs it quite differently. Because quantum physics provides his text with the necessary vision of the unity-in-diversity, Lopez uses his imagination as a tool by which to generate new and more accurate metaphors, to fill in still existing gaps in scientific knowledge about arctic animals and physical particulars, and to contextualize facts about arctic animals that scientific (and other forms of textualized) reports have compartmentalized and/or abstracted. Whereas the imagination in this sense *does* play an important part in Lopez’s vision of the Arctic, it is never allowed to create systems of decontextualized and ‘symbolic’ particulars with its own internal logic. Instead, *Arctic Dreams* gives us examples of what happens to animals who get caught up in such symbolic systems of thought; like the narwhal who in medieval Europe became mixed up with the mythical figure of the unicorn, or the polar bear whose image changed from “ghostly marauder” to “vaguely noble... romantic, estranged, [and] self-absorbed creature” according to the cultural movements in fashion at the point of its description (*AD* 110, 113). Accordingly Lopez argues *against* a cultural tendency to turn animals into symbols by

revealing the sometime incidental associations and paradoxical disconnections between the realms of the actual and the symbolic. As part of a region in which historically little was known but much inferred from old myths or travelers' reports, arctic animals have been especially vulnerable to this kind of misrepresentation.

The poet's imagination is also what makes us aware of the abundance of animal lifeworlds to be found in North American Arctic; lifeworlds that can never be accessed, only briefly glimpsed by an imagination filled with knowledge about, and alertly sensitive to, the empirical realities of these animals and their behavior within a particular environment. When Lopez *generally* (with a few, but much discussed examples to the contrary) seems to have little desire to color the particulars of this external world with his own emotional impressions of them, this could be in recognition of the fact that the poet is not the only one to engage in world-making activities on the basis of his sense experiences. The *Umwelt* theory he alludes to in his animal depictions asserts that regardless of the level of reflection and sophistication involved in these processes, all animals engage in world-making activities. The poet's perspective on the world is merely one among several. Accordingly, the aim of this modern poet seems to be to reflect upon arctic animals and the arctic natural environment without imposing a symbolic or cultural meaning upon them – without any other agenda than to reveal to us the mistakes of our past involvements with this landscape and to urge us to caution in our future involvement with it.

Catalogues of a different nature

Unlike the great catalogue of animal movement described in the above, most of Lopez's other catalogues have little or no resemblance to those of the Transcendentalist literary tradition. The catalogues of ice and light phenomena (to which Lopez dedicates almost an entire chapter) take the form of listings supplemented with explanatory passages, and lack the underlying coherence of transcendental rhetoric. These catalogues nevertheless serve as important and educational corrections to the cultural perception of the Arctic as a white and monotonous space. For who knows much about the different types of icebergs that exist – and of their origin? Who knows that “icebergs are dwarfed by ice islands, a kind of ice calved along the north coast of Greenland and the northwest coast of Ellesmere Island,” and that even these cannot compete in size with “tabular icebergs ... the largest objects afloat in the Northern Hemisphere” (*AD* 209)? Lopez's repeated insistence on contextualization – of scientific facts, of narratives, and even of our human mental processes – is what makes me

critical of Romanticist readings that imply that the “genuine particulars” of the Arctic are present in the text of *Arctic Dreams* merely to yield abstract and symbolic insights into the relationship between landscape and mind (Slovic *Seeking* 156).⁶⁸ For whereas *Arctic Dreams* is indeed a reflection upon the “psychology of awareness” (Slovic *Seeking* 141), this reflection is made possible precisely by the resilient materiality of the arctic particulars the text presents.

Most chapters in *Arctic Dreams* open by installing a sense of the distinctive physical otherness – or even deceptiveness – of the arctic landscapes Lopez visits, and the way they disrupt straightforward categorization. Here are winter “day[s] without a sunrise, under a moon that ha[s] not set for six days” (*AD* 15); sea ice that makes “[t]he firmness beneath [his] feet belie[] the ordinary sense of the phrase ‘out to sea’” (*AD* 119); and “daily cycle[s] of tides rising and falling” miniscule enough to “be measured with a fingertip” (*AD* 252). And it is precisely this physical strangeness that reveals not only our personal presumptions and expectancies in meetings with the foreign, but also the scientific and cultural categories into which we expect the natural world to fit.

In chapter one “Arktikós,” Lopez’s point of view turns to the level of the planetary in order to give us an overview of the peculiar light conditions of the Arctic and their consequences for biological life. The overview remains anchored in scientific facts; the primary means available to Lopez to correct the visions of the “unscientific eye [to which] the land would seem to have run out of the stuff of life”; to be “underdeveloped” (*AD* 25). As this ‘scientifically omniscient’ narrator takes us on an imaginary ‘planetary walk’ back and forth from the North Pole to Mexico City (or the more generalized ‘tropics’) along the 100th meridian (*AD* 21), he once again reveals darkness and light to be end extremes of a continuum. By associating cartographic terms and categories to an imagined experience of gradually altering conditions of light, temperature, plant and animal life along his north-south gradient, Lopez highlights the fact that the Arctic, even in its radical physical otherness, exists on a normal extension of conditions and categories known to us. The effect of this ‘planetary walk’ is to make us understand how, while cartographic models have been extended to

⁶⁸ This becomes particularly problematic when the North American Arctic in this manner becomes “the exotic” whose portrayal serves mainly “to enrich our understanding of the familiar” (Slovic *Seeking* 150). In my opinion, the overall argument of *Arctic Dreams* serves to counteract rather than serve this kind of colonialist distortion of this region.

include the Arctic, the basic conceptions and categories according to which we understand the world have not been broadened accordingly. Our conceptions of what constitutes a day, a season, a forest, or even an ecosystem are conditioned, as Lopez points out to his Western readers, by our lives in the North Temperate Zone (*AD* 20). Interpretations of the Arctic as somehow beyond our categories – as an imaginary dualistic opposite or Other – are in this manner deconstructed to expose precisely the need for a broadening of categories and a redefinition of conceptions in our meetings with the Arctic. Lopez’s empirically based ‘planetary walk’ – expressive of his “planetary consciousness” (Pratt 15) – hence draws the Arctic into the category of the Same while still maintaining its physicality and its Otherness.

Lopez, unlike Emerson, does not search beyond the ‘brute body’ of things for their unified order. Instead, in catalogue after catalogue he focuses on the very materiality of the Arctic. These catalogues serve quite different purposes in the text than did the Transcendentalist catalogues. Lopez’s long and many-faceted description of the narwhal, for instance, serves to counteract the kind of reductionism implicit in taxonomic and other scientific descriptions by making us spend time on this animal and share his perception of it. The core of this catalogue is not a transcendental vision of the unity of the world, but rather a vision that unifies different views on what this animal *is* and represents. (It borders on the mysterious only with regards to what we *cannot* know about this animal.) Among these different significations we find descriptions of the narwhal’s evolutionary history and possible modes of perception, its ecological niche and sociality, its materiality and human use of this materiality, as well as human cultural representations and misrepresentations of this animal. As a result of Lopez’s comprehensive listing of facts and representations, we realize that the threat to the narwhal is not merely a threat to this one particular species, but to the myriad relationships, the long history of evolution and of the specific view of the world the narwhal represents. The loss of this species would not be the loss of one item on a list (like the index of arctic mammal species at the back of the book), but rather the loss of the 32 pages of Lopez’s description of what this animal is and represents. Without the narwhal, there would be no unicorn horns to magically protect anxious Renaissance Europeans from various ills and sneak attempts on their lives (*AD* 141-42). For the traditional Inuit beyond the tree-line there would be no “spear shaft, [no] tent pole, [no] sledge thwart, [and no] cross brace” (*AD* 147). For the poet and traveler, like for us all, there would be no way to experience “*quviannikumut*” – the feeling of deep happiness – in watching these animals in the wild (*AD* 135).

The materiality of ice

In both Lopez's late twentieth-century and Scoresby's early nineteenth-century accounts of the Arctic, we find aesthetic as well as scientific descriptions of ice. Of the scientific information presented in narratives like Scoresby's *Account* and Parry's *Journal*, descriptions of ice forms and ice movements are a characteristic feature.⁶⁹ Parry places an alphabetized list of the "technical terms" of ice at the end of the introduction to his *Journal*, and then includes more detailed descriptions of ice formations and icy landscapes as they naturally occur in his travel narrative (xvii-xviii). A similar un-alphabetized but more extensive list of the terms and categories by which whalers have distinguished different forms of ice introduces Scoresby's "Account of the Greenland or Polar ice" (Ch IV). In Scoresby's following thorough and fact-oriented account, the qualities and likely occurrence of the different forms of ice are presented as the result of external forces working on the passive medium of ice. In both Parry's and Scoresby's accounts, in other words, authoritative taxonomies of ice are presented in spatialized form, to be elaborated on in the later narrative descriptions these texts offer.

The passivity of the ice in these scientific descriptions seem curious in texts like Parry's and Scoresby's, which are otherwise filled with lived and reported stories of ships 'nipped,' crushed and/or sunk by moving ice. These are stories that leave no doubt about the extent to which the ice determines the movements of the explorers, the success of their enterprise, and indeed their very survival. In Scoresby's account, only the ice *calf* seems to possess some kind of independent agency. "[C]alves," writes Scoresby, "when disturbed by a ship sailing over them, have not unfrequently been called from their sub-marine situation to the surface, and with such an accelerated velocity, as to damage the vessel, or even to occasion shipwreck" (228). Upon closer examination, of course, Scoresby's use of the phrase "been called from" implies that the ice merely responds to the external forces acting upon it; forces put in motion by the agency of the ship passing over it. In a similar manner, the opening and closing of ice fields, which may completely reorient, reverse, or even extinguish further movement, are either described as the mere result of existing wind or ocean currents, or left unaccounted for as "altogether anomalous" (Scoresby 286).

⁶⁹ Whether presented in the form of lists of physical shapes or of technical terms, these meticulous records in "technical language" are precisely what Morgan scorns literary critics for having dismissed on the formalist presumption that they are "practical" and "essentially unliterary" (10). More on this in Chapter Eight.

Also in *Arctic Dreams* one of the more extensive catalogues of material phenomena deals with the arctic ice; more specifically sea ice in its different formations. Lopez introduces this catalogue by quoting a scientist who states that “[s]carcely a substance on earth ... is so tractable, so unexpectedly complicated, so deceptively passive” (AD 210).⁷⁰ However, this catalogue does not merely present the reader with the “variety of ice types and the many patterns of its fracture and dislocation [that] amaze a first-time visitor” (AD 212). Its more important function is to show how the different forms of ice result from the interaction of forces in specific places under a given set of conditions, and express different stages in the ‘life’ or development of the sea ice.

In the absence of any wind or strong current, sea ice first appears on the surface as an oily film of crystals. This frazil ice thickens to a kind of gray slush called grease ice, which then thickens vertically to form an elastic layer of ice crystals an inch or so thick called nilas. Young nilas bends like watered silk over a light ocean swell and is nearly transparent (i.e., dark like water). When it is about four inches thick, nilas begins to turn gray and is called young ice, or gray ice. When gray ice finally becomes opaque it is called first-year ice. And in these later stages it thickens more slowly. (AD 210-11)

By presenting the different forms of ice in a narrative of how these forms evolve over time, Lopez’s account of ice avoids the spatialization involved in Parry’s and Scoresby’s classifications. “[S]patialisation,” we remember from Massey’s theorizations of space, is an act of “setting things down side by side” (23) that ultimately robs the objects represented of “their inherent dynamism” (38).⁷¹ Thus even as Scoresby describes the different conditions under which different forms of ice occur, the scientific and classificatory premise of his descriptions prevents him from ascribing agency to the ice itself.

Lopez’s catalogue, on the other hand, does not hide the intra-active and material becoming of ice, but structures the representation of ice forms in a manner that highlights that the formation of sea ice is a highly complex and context-dependent form of development. Each of these developmental stages has its distinct history, characteristics, and expectancy of

⁷⁰ Lopez neither identifies this scientist nor provides a reference to his statement.

⁷¹ For our purposes, the perfect example of this is to be found in the Scott Polar Research Institute’s *Illustrated Glossary of Snow and Ice* (Armstrong, Roberts and Swithinbank). This dictionary no doubt owes much to early classifications and descriptions of ice provided by nineteenth-century explorers like Parry and Scoresby. As this book is referenced in Lopez’s *Arctic Dreams*, it is likely that it also provides part of the material on which Lopez bases his descriptions of the sea ice.

future development. Thus in *Arctic Dreams* the development of sea ice resembles the development of organic life forms whose very conditions of life the sea ice determines. Lopez's catalogue also makes evident the fact that, unlike land (and other forms of matter understood in terms of solid objects), ice cannot always be trusted to provide the literal and physical "solid support, location, [and] referent[s]" to our place in the world (Barad 139). "When nilas sags beneath you," Lopez reports, "your legs have no idea what to do" (*AD* 212). Similarly, the sometimes vast and monotonous landscapes of sea ice may either leave you without any reference points, or suddenly break up to let you drift off beyond the ones you had. Thus ice, in Lopez's representation, seems to indicate a loosening of the anchor holds to existing forms of discourse about the natural world, and a move towards a more new-materialist understanding of the agency and interconnectivity of matter with other, more conscious forms of life.

In Lopez's portrayal, the development of sea ice resembles the development of organic life forms whose very conditions of life it determines. These life forms and their dependency of the sea ice are the focus of another of Lopez's ecologically focused catalogues:

Seals and walrus depend on the ice to carry them passively to new feeding grounds and to function as a platform upon which they can rest, molt their hair, and give birth to their young. Ice floes also serve as temporary islands where these animals are safe from orcas and landbound predators. As a seaward extension of the land, the ice becomes as a winter highway for migrating muskoxen, caribou, polar bears, and arctic foxes. Icebergs and large remnant pieces of pressure ridges that ground in coastal bays and continue to shift in the tides all winter, can keep enough water open to maintain a herd of walrus at a new feeding ground until spring. In November, after a river has frozen over and its channel has drained ... you can sometimes drop through the ice and walk around on the empty riverbed – one of the polar bear's favorite places for a winter bivouac. (*AD* 221-222)

As exemplified also in the scene at the floe edge ecotone, the sea ice produces the habitats and ecological niches that hold "this life together" (*AD* 124). Far from a static backdrop the animals make use of to feed and breed their young, the sea ice is a medium in constant interaction with other mediums and forces of the physical environment. Arctic animals find themselves in this very process of interaction, to which they add their own life-sustaining actions and adaptations. Only through this closely interwoven network of organic and inorganic forces can the sea ice serve the animals as mode of transportation and protection

from predators. Thus in this catalogue of ecological relationships, the sea ice provides a very concrete and material underlying unity expressive of a larger interactional field (*AD* 221).⁷²

Like in other scenes of realist mimesis, Lopez ends his catalogue by making this ‘exotic’ component of arctic ecosystems available to the human. Its wondrous worlds, exemplified by the empty riverbed under the frozen sea ice, are places we may visit, just as the polar bear does. Thus Lopez makes his readers imagine sharing this particular environment with the polar bear. The lifeworld of the polar bear is glimpsed, and the human point of view comes close to that of this arctic animal. Lopez further makes the unfamiliar sea ice familiar to us by comparing it to the soil of more southern ecosystems, which similarly serves as food base and “topographic relief” for its animals (*AD* 221). But for a moment we see the white surface of the arctic ice in terms of dark soil.

The materiality of light

Arctic Dreams presents two other characteristically arctic matters in catalogue form: the *aurora borealis* and phenomena (like mirages) that involve the refraction of light. Like he did with sea ice, Lopez finds “[t]he physics involved in the refraction and reflection of sunlight by ice crystals and water droplets, and its diffraction by airborne particles” to be “dauntingly complex” (*AD* 231). In his ensuing catalogue of mirages, the physicality of air and airborne ice crystals come to the fore, and the air above the Arctic loses the quality of a neutral medium – or nothingness. Lopez’s explanation of the physics involved in the production of mirages reveals how the air itself can act as a series of lenses that radically distort any attempt at objective observation. Arctic air in this manner becomes a counterbalance to the lens of former explorers’ field glasses, through which vision was supposedly neutrally and objectively enhanced in the service of accurate cartographic mappings and appropriations of the region. Whereas in most cases the air’s distortion of vision “were a source of delight and amusement” to travelers unused to these phenomena, Lopez also points to a number of cases in which arctic fata morganas had dire consequences for travelers embarking on daring voyages in order to confirm or expand on non-existent cartographic ‘facts’ (*AD* 238). In this manner the arctic air, like the ice crystals suspended in it and the sea ice, reveals the agentic

⁷² The long time needed to recognize this foundational importance of snow and ice in arctic ecosystems Lopez attributes to the fact “[t]he foundations of Western ecology were laid down by scientists working almost exclusively with temperate-zone ecosystems” (*AD* 220).

quality of matter. As Lopez's catalogues make evident, arctic materiality holds agencies of a peculiar nature and particular force. And whereas these material agencies may aid or distort human agency, the power to determine this relationship lies with them.

Lopez's arctic mirages are complimented by the already mentioned black-and-white contrasts of the Arctic in producing distortive visual effects. As an example of the curious effect this seeming lack of color may cause, Lopez presents Vilhjalmur Stefansson's account (in *My Life with the Eskimo*) of how he spent an hour "stalking a tundra grizzly that turned out to be a marmot" (AD 239). Similarly, "Johann Miertsching, traveling with M'Clure aboard the *Investigator*, wrote of a polar bear that 'rose in the air and flew off' as the hunting party approached. A snowy owl" (AD 239). These examples of the deceptiveness of vision all highlight the impossibility of detached and objective observation of arctic landscapes. Observation, like all other activities, is determined by and takes place within a field of agentic forces. As such, it depends on context and relative positioning.

Lopez's representations of arctic natural environments provoke the realization that it might be impossible to determine the observer's position in relation to certain material objects and, as a consequence, the dimensions and the very nature of these objects. The *aurora borealis* exemplifies some of the problems involved in the accurate observation of arctic natural phenomena. "[B]ecause of a problem of depth perception with objects of unknown size in space," especially with moving objects of "overwhelming size," writes Lopez, the human eye might 'see' the aurora touching the ground even when it is physically located at a distance of more than 100 miles above it (AD 233). This problem of size and distance perception is further complicated by the way in which the phenomenon changes according to the observer's positioning:

To someone underneath the display ... the aurora may appear like a convergence of rays toward an apex above. Seen edge-on ... the display may seem like luminous smoke rising from the earth. From a distance it may look like a weightless curtain of silk, hanging straight down and rippling in the night air. (AD 233)

But more fundamental to Lopez's poetic project is his demonstration of the fact that the light of the auroral display visible to the human eye is only part of the much larger natural phenomenon of solar wind. Asking his readers to imagine a cosmic view from the sun toward the earth, Lopez describes this wind as "a gas of ionized, or charged, particles, mostly helium and hydrogen nuclei ... [that] pass around the earth as though it were a rock in a stream of water" (AD 234). As this stream of particles passes the earth's atmosphere, it creates an

electric current. According to Lopez's view from the sun, it is the "[p]articles pouring into the polar regions from a positive terminal on the left [that] create the aurora" by releasing the charges of this current (*AD* 234). The released energy takes the form of visible light, but also of "X-rays, infrared and ultraviolet light, radio waves" (*AD* 234). Yet even these mostly invisible forms of radiation represent only half of the phenomenon of the solar wind's interaction with the atmosphere of the earth. For as the discharged particles of the current "flow up and out to a negative terminal on the right, they constitute a separate invisible phenomenon, the polar wind" (*AD* 234). Thus the aurora, which seems mysteriously to arise on the dark emptiness of the polar sky, represents a mostly invisible but highly material interaction between the sun and the earth.

In evoking the imagery of a stream of flowing water to describe the flow of ionic particles from the sun to the earth, Lopez's depiction of the aurora also aesthetically encourages the interpretation of this phenomenon in terms of the new conceptualization of matter in relativity theory. In this manner the aurora confirms the relational nature of agentic materiality, while simultaneously imparting the need to consider not merely the most conspicuous, beautiful, and positively charged part of the phenomenon, but also those invisible, negatively charged currents of the polar wind without which there would be no display of colors to admire. Thus Lopez's presentation of distinctly arctic phenomena of ice and light calls for a recognition of the radical empirical relationality and interconnectivity of the world which supports the text's already established parallels to quantum physics.

Alternative organicism and the poet as world participant

Arctic Dreams exposes its empirical focus by allowing the most sophisticated scientific examination of those most fundamental yet minute of entities – the sub-atomic particles – to provide the cardinal vision of unity-in-diversity. Quantum physics represents to Lopez precisely the kind of breaking of boundaries of established knowledge that he finds necessary for a renewal of modern people's relationship with the natural world in general, and with the Arctic in particular. Accordingly, it is to quantum physics Lopez alludes in several of his more 'transcendental' moments.

The organicist world model of quantum physics emerges in *Arctic Dreams* as a more developed substitute for the Romantic organicist one. Although it resembles the latter in its assertion of the interconnectedness of all things, of the primacy of the whole over the parts, as

well as in its focus on ‘becoming’ over ‘being’ (Abrams *Mirror* 171-74), this world model is *not* the product of a poetic imagination seeking unity with an Emersonian ‘Over-Soul.’ Rather, it is the result of the most advanced of modern empirical science. *Arctic Dreams* does not deny the centrality of the poetic imagination in enlivening its depictions of, and enhancing our sensibilities towards, arctic animals and physical ‘particulars.’ The text does, however, make evident that the most developed forms of scientific observation will yield much the same insight (and indeed support what were previously decidedly Romantic notions) about the radical relationality of the world. Accordingly, in Lopez’s scientific, empirical and contextualized account of the Arctic, there is no attempt to substitute the worldview of the poet for that of science. The assertion in quantum mechanics of the interconnectivity between all levels of organization in the universe renders the poet’s imagination an unnecessary intermediate of the vision of the unity-in-diversity. The poet’s role in this text becomes to complement the scientific world view; to question its desire for abstraction, reveal its limitations and failures, and supplement it with insights from other lines of investigation and systems of thought.

If this marks a ‘dethronement’ of the role of the poet relative to that of many earlier Romantic works, it does not render him redundant. Similarly to the way the floe ice at Admiralty Inlet acts like a catalyst bringing together the lives of all the creatures of the ice edge to trigger their further development, Lopez acts as a catalyst for new ways of thinking about the Arctic by bringing together observations and facts from a range of academic disciplines and lines of thought. The role of Lopez the poet is thus, in this text like in earlier texts of the Transcendentalist tradition, to find in “the horizon” that property of the landscape “which no man has but he whose eye can integrate all the parts” (Emerson *Nature* 3). Yet this poet is not a prophet in the sense of a mystic seeking knowledge of a spiritual order. What is more, the scope of the parts to be integrated into the poetic whole has been broadened to include cultural and epistemological perspectives that in Emerson’s time still remained beyond the horizon. It is not only Western Romanticism and modern Western science that meet at the edge of the ice in Lopez’s Arctic. Like his Romantic predecessors, Lopez in *Arctic Dreams* relies on insights borrowed from far Eastern cultures, older European history, and contemporary Western society. Additionally, this well-educated modern traveler allows the cultural perspectives of Inuit hunting cultures and of nineteenth-century European arctic explorers to influence the subject matter and the poetic vision of his text. The resulting vast

conglomerate of perspectives is what in Lopez's text constitutes the horizon where a new perception of the Arctic arises.

Lopez's more reflexive *human* visions of the arctic ecological unity-in-diversity occur as moments interspersed within a text that generally presents a multiplicity of life forms existing in relationship with, yet independently of, the poet. This is a world of animals and objects that are granted both coevalness and agency through Lopez's narrative; animals and objects not passively waiting to be 'discovered' but actively engaging in the constant, interactive processes of co-constitution of the world *together with* the narrator. There is unity, or what Lopez calls an "original order" to this world, but also difference, creativity, unpredictability (*AD* 405). So although it is the poet, at the ice-edge ecotone, who initiates the 'evolution of thought' about the Arctic by bringing into contact a multiplicity of human and animal perspectives, this evolutionary process is something the human is a *part of* rather than the *creator of*.

In *Arctic Dreams* Lopez evokes and reworks a set of Romantic aesthetic forms of representation. While some of these forms (like the aesthetics of the sublime, which will be discussed in the coming chapter) were empathically present in nineteenth-century arctic exploration narratives, such narratives generally aimed at the discovery and objective representation of arctic landscapes, animals, and natural phenomena. Lopez's representation of the black-and-white contrasts of arctic landscapes provides a compelling example of how he initially imbues what was in earlier explorer narratives merely a characteristic color pattern with a Romantic interpretation. The black-and-white contrasts of the Arctic become in Lopez's narrative expressions of the opposing forces of life and death, creation and destruction. Having established this aesthetic and symbolic dichotomy, the narrative moves on to question the very propensity to categorize the world according to such dichotomies. As evidenced also in Lopez's 'planetary walk' from the North Pole to the tropics, one of the overarching objectives of *Arctic Dreams* seems to be to veer our culturally conditioned perceptiveness away from binary oppositions and towards the full range and complexity of natural and cultural phenomena.

The comparison between *Arctic Dreams* and the nineteenth-century exploration narratives of Scoresby and Parry is instructive for the way it brings out both the value and the limitations of Lopez's Romantic aesthetizations of the Arctic. The comparison further allows us to perceive how the status and agency of matter change in Lopez's representation. This becomes evident particularly in the catalogues of *Arctic Dreams*, which represent a more

phenomenal celebration of the abundance of forms of the natural world than do the catalogues of the Transcendentalists. Even in the catalogue of animal movement most formally resembling a Transcendentalist catalogue, the focal point is only seemingly the mind of the poet. Lopez's catalogue of animal movement does not reduce the particulars of the catalogue to mere tools in the evocation of the poetic vision of the whole, but lets us wonder at the phenomenon of animal migrations in its great variety of forms and rhythms. Like most of the other catalogues of *Arctic Dreams*, the focus stays with the animal and/or the material. The similarities between the catalogues of *Arctic Dreams* and those of the Transcendentalist tradition are hence more a matter of form than of function.

The ultimate aim of Lopez's animal catalogues seems to be the description and valorization of the vast relationality of arctic forms of life. In comparison to the catalogic description of the narwhal found in Scoresby's *Account*, for instance, it becomes evident that Lopez's narwhal catalogue, by presenting a range of interpretations and valorizations of what the animal *is* and represents, ultimately highlights the value of the animal *beyond* its worth to science. In his catalogues of ice and light, we have seen, Lopez's unique combination of scientific listing and poetic description serves to highlight the agentic qualities of physical matter (sometimes paradoxically) rendered inert in the explorer narratives. In this sense, the catalogues of *Arctic Dreams* are, like the text in its entirety, more postmodern and new materialist than Romantic.

Chapter Eight: Towards a new arctic sublime

After the arctic sublime?

We have now seen how Lopez in his portrayal of the physical landscapes of the Arctic engages in a critical dialogue with literary Romanticism in which he applies and reworks the catalogue rhetoric of the American Transcendentalists and the more general Romantic aesthetics of creative polarities. The current chapter continues the investigation of *Arctic Dreams*' dialogue with Romanticism by discussing how Lopez in this text similarly utilizes and redefines the more well-known and influential Romantic aesthetic mode of the natural sublime.

The natural sublime was an important and much used aesthetics for Romantics seeking unity and a fresh relationship with nature. This aesthetics was powerfully present also in nineteenth-century depictions of the Arctic that emerged as a result of the great exploratory efforts launched by the British nation in this period. Ian S. MacLaren has argued that British explorers charted the unknown landscapes of the Arctic aesthetically with much the same skill as they did astronomically, and that indeed this "description of new tracts [of land] as more or less sublime or picturesque" was as important in identifying where and how these lands related to the familiar landscapes of home as were the measurements of latitude and longitude identifying their position in relation to Greenwich (89). In this sense well-known aesthetic categories like the picturesque and the sublime aided the conceptual mappings of the distant Arctic that went hand in hand with its more scientific forms of mapping (MacLaren 90; cf. Morgan 6). Consequently, literary criticism of nineteenth-century arctic exploration narratives has at times been deeply involved with the aesthetics of the sublime.

The tendency of literary critics to focus on expressions of the sublime at the expense of other aesthetic forms of representation has provoked literary scholar Benjamin Morgan into charging the arctic sublime with outmodedness. In his recent article "After the Arctic Sublime" (2016), Morgan points to two ways in which we in the present moment have moved beyond this aesthetics. According to Chauncey C. Loomis, whose 1977 article "The Arctic Sublime" was seminal in defining this regional version of the nineteenth-century natural sublime, this aesthetic category was one that "reached its peak in the 1850s" and "faded by the century's end" (Morgan 3; cf. Loomis 112). This leaves us both historically and scientifically 'after' the arctic sublime. If we accept this historical periodization of the arctic sublime, we

simultaneously also accept Loomis' premise that a natural region, landscape, or phenomenon, in order to retain its sublimity, "cannot be mapped" (Loomis, 112). Such a historical sense of 'afterness,' however, is not Morgan's main concern. Rather, his argument is that a melting and environmentally threatened Arctic can no longer be considered sublime. With the threat of climate change, the Arctic has acquired new symbolic meaning as an expression of "the earth's profound vulnerability to collective human agency" (Morgan 3). In this sense we are 'after' the arctic sublime also in terms of figurative and aesthetic interpretations. Relying on a definition of the sublime founded on the recognition of nature's irresistible power, and on the presumption of the permanence and inviolability of nature (Hitt 618), Morgan suggests that this change in symbolic meaning should make us in our cultural and literal analyses of the Arctic leave our investigations of the aesthetics of the sublime favor of investigations of other aesthetic modes of representation.

In arguing for a turn away from critical emphasis on the aesthetics of the sublime, Morgan is merely the latest in a long line of critics who have found the aesthetics of the sublime both dated and ideologically unsound. From the 1980s onwards, literary critics have highlighted the association between the aesthetics of the sublime and a more general Romantic ethos of expansion that worked in support of the "heady imperialism" of the eighteenth and nineteenth centuries (Weiskel 6). In America, Barbara Novak claims, the sublime was in this period "absorbed into a religious, moral, and frequently nationalist concept of nature, contributing to the rhetorical screen under which the aggressive conquest of the country could be absorbed" (33). In more recent criticism the sublime has been evaluated "as an expression of asymmetrical power relationships" within settings spanning from the colonial to the domestic and gendered sphere (Hitt 603). As a result of this criticism, the sublime has fallen into disrepute (Weiskel 6) and ecocritics have been reluctant to engage with literary representations of the sublime.⁷³

This evasion, or "scholarly neglect," is to Hitt both problematic and peculiar (605). It is problematic because Hitt believes that the aesthetics of the sublime may still prove useful in forming new and better ways of conceptualizing the natural world. It is peculiar considering

⁷³ Hitt exemplifies this tendency by pointing out that even substantial works by scholars of British Romanticism, like Jonathan Bate's *Romantic Ecology: Wordsworth and the Romantic Tradition* and Karl Kroeber's *Ecological Literary Criticism*, either ignore the sublime or criticize the amount of critical attention it has received (604).

the central role nature plays in both Burke's and Kant's theorizations of the sublime (Hitt 604-5). For all its troublesome valorization of the (male, Western) human, Hitt argues, "humility before nature" has always been an "elementary part" (606), and indeed "a prerequisite" (607), of the natural sublime. This humility is in turn what generates in the viewer the admiration and respect for nature that supplements his (or her) emotions of wonder and awe in experiences of the natural sublime. William Cronon implicitly supports Hitt's valorization of the aesthetics of the sublime in pointing out how the sublime helped the transformation of cultural attitudes towards the wilderness. In the early Christian tradition wilderness was seen as the home of Satan, "a place of spiritual danger and moral temptation" entered "only against one's will, and always in fear and trembling" (Cronon 73, 71). With the development of the concept of the sublime, wilderness gradually came to be perceived as "a landscape where the supernatural lay just beneath the surface," or alternatively "God's own temple" in which humans could enjoy a more or less original and innocent state of being (Cronon 73, 72). On the basis of the way the aesthetics of the sublime engenders these positive attitudes towards the natural world, Hitt argues that "the concept of the sublime [still] offers a unique opportunity for the realization of a new, more responsible perspective on our relationship with the natural environment" (605). In order for this to happen, however, the sublime must be updated in accordance with recent cultural and technological developments.

The current chapter engages in the discussion of whether or not an arctic sublime still exists or is at all a useful concept. I will argue in favor of reading *Arctic Dreams* as an embodiment of Hitt's call for the recuperation of the aesthetics of the sublime, rather than for its relinquishment. In order to do this, I will present the way in which this more contemporary text reworks the concept of the arctic sublime in a manner that meets the criticism of this aesthetics. Lopez's choice to apply this aesthetics as a means to promote his own updated and more ecological vision of the North American Arctic seems both peculiar and perfectly natural in this text that is in dialogue with both postmodern and Romantic modes of representation. This chapter will point to some of the ways in which the aesthetics of the sublime causes problems for the text's eco-centric perspective on the world, and to some of the ways in which it promotes it. Through an investigation of these issues it will reveal how *Arctic Dreams*' re-defined sublime helps to re-define the Arctic to its readers.

Expanding the field of investigation

I find Morgan's "After the Arctic Sublime" invaluable for the way it addresses the question of how we define and use aesthetic concepts under different historical circumstances. This issue also reverberates throughout Lopez's *Arctic Dreams*. Morgan bases much of his discussion of the aesthetic representation of the Arctic on William Scoresby's *An Account of the Arctic Regions*. *Arctic Dreams* also refers to Scoresby's *Account*, but as I will show in the following, Lopez's reading of this text leads him to develop his own version of the arctic sublime. Lopez's version seems, however, to incorporate much of what Morgan finds lacking in the traditional arctic sublime, and might be regarded as an already existing answer to Morgan's call for a new, historically and environmentally updated aesthetic framework for the Arctic.

"After the Arctic Sublime" involves an opportune critique of the evasive treatment in literary scholarship of the scientific aspects of old explorer narratives, which mirrors literary critics' neglect of the scientific parts of *Arctic Dreams*. Morgan interprets this neglect as a sign that literary scholars have forgotten the very significant manner in which "descriptions of the Arctic environment were, literally, descriptions of the Arctic environment" (Morgan 10). He further believes the many meticulous records of natural phenomena presented in "technical language" within these narratives have been dismissed on the formalist presumption that they are "practical" and "essentially unliterary" (Morgan 10; quotations from Schmitt 55). To this criticism he adds an important point that scholars engaged in analyses of these nineteenth-century texts seem to have overlooked: the fact that the extreme challenges arctic climatic conditions posed on the explorers' bodies made the presumption of the observing subject's transcendence of the reality under scientific observation literally impossible (Morgan 13). As we shall see, this is a point also made by Lopez in his reworking of the arctic sublime.

To amend these scholarly neglects, Morgan proposes a double strategy of reading intersections: "the intersections of the lyrical and the technical in the Arctic voyage narrative," and the intersections of the scientific observations of arctic phenomena and the "moods" of the narrated situations in which these observations were produced (Morgan 11, 12). This denotes reading for a new aesthetics; one always present in these narratives but neglected in favor of the aesthetics of the sublime, and one in line with more original and *aesthetic* definitions of the concept of the aesthetic (Morgan 14). In this manner Morgan's insistence that we must begin to read arctic exploration narratives for aesthetics beyond the aesthetics of the sublime represents a call for a return to a more original definition of aesthetics, and to new

forms of literary analysis capable of accounting for the human body's physical interaction with the natural environment.

I believe a new materialist ecocritical approach would be extremely helpful in bringing out the somatic dimension of the kind of redefined aesthetics that Morgan is after. In my work on *Arctic Dreams*, I have applied a new materialist approach in the sense that my analyses have stayed with the material in the textual representations of the natural environments of the Arctic. In line with Morgan's call for more inclusive readings of nineteenth-century representations of the Arctic, I have included the more scientific descriptions of arctic animals and the arctic natural environment that form vital parts of *Arctic Dreams*, but that previous criticism has tended to overlook. When supplemented with analyses of scenes in which animal life is presented, what emerges is precisely an image of "the messy entanglements" of the human and the geological, and, I would add, of the human and the biological, that Morgan finds the aesthetics of the sublime to prohibit (22). As I will show in the following, Lopez actively employs and reworks this old aesthetics in a manner that highlights rather than suppresses the materiality and otherness of arctic natural environments and their denizens.

Terror and distance in the arctic sublime

In his article on "The Arctic Sublime," Loomis demonstrates how the English public, which in the nineteenth century took increasingly greater interest in the nation's arctic explorations, ascribed sublimity to the arctic *as a region*. One cause of this was the fact that the Arctic existed quite literally beyond knowledge. What was more, with its radically unstable sea ice, its periods of utter darkness, and its weird visual phenomena, the Arctic seemed by its very nature to resist human conceptualization. In Loomis' words: "It seemed that Nature was manifested not only at its harshest but also at its most inscrutable in the unknown reaches of the polar world" (100). And as more and more reports of the explorers' many struggles became known, arctic nature came to be perceived as "somehow vaster, more mysterious, and more terrible than elsewhere on the globe – a region in which natural phenomena could take strange, almost supernatural, forms, sometimes stunningly beautiful, sometimes terrifying, often both" (Loomis 96).

The natural sublime was to nineteenth-century Englishmen a well-established aesthetic mode with which to express the vastness and power of nature. But what exactly was the

power ascribed to nature through the aesthetics of the sublime? And how could an aesthetics that seemingly celebrated the power of nature over and above the human be used in support of imperialistic conquests of nature? In order to answer these questions we must look to dominant theories of the sublime in circulation at the time.

In his tremendously influential *Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful* (1759), Burke claimed that

[w]hatever is fitted in any sort to excite the ideas of pain, and danger, that is to say, whatever is in any sort terrible, or is conversant with terrible objects, or operates in a manner analogous to terror, is a source of the *sublime*; that is, it is productive of the strongest emotion which the mind is capable of feeling. (24)

Thus Burke defined the sublime in terms of a psychological feeling of threat. Because the ideas of pain or danger engendered by the sublime were perceived as a threat to the observing subject's very self-preservation, the sublime produced the "strongest" possible "emotion." In meetings with the "great and sublime in *nature*," Burke further claimed, the ultimate effect of this emotional state of terror was "Astonishment"; "that state of the soul, in which all its motions are suspended, with some degree of horror" (39). The suspension of the soul in the meeting with the terrible simultaneously "exercise[d]" the mind and the 'finer' organs of sense (like the eye and the ear) and caused a sense of "tranquility tinged with terror" that led Burke to associate the sublime with an oxymoronic sense of "delightful horror" (Burke 105). Second or "inferior" effects of the sublime were feelings of "admiration, reverence and respect" (Burke 39).

Prior to Edmund Burke's definition of the sublime in terms of psychological feeling, writers and literary critics found "[t]he source of sublimity ... in God and in the manifestations of His greatness and power in Nature" (Nicolson 282). With the development, in the seventeenth century, of what Marjorie Hope Nicolson terms "the Aesthetics of the Infinite," a sense of infinite vastness was transferred "from God to interstellar space, then to terrestrial mountains" (Nicolson 273). And although the aesthetics of the infinite transferred the vastness of God into a terrestrial world so filled with variety that it completely absorbed the human imagination, mountains held a special position within this tradition (Nicolson 293). As expressed by seventeenth-century traveler to the Alps, John Dennis, prospects of beautiful "Hills and Valleys, of flowry Meads, and murmuring Streams" were associated with "a delight that is consistent with Reason, a delight that creates or improve[s] Meditation" (qtd. in Nicolson 278). In contradiction to this, the barren shapelessness and confusion of the

mountains (which could not immediately be interpreted to express the harmonious order of the world) produced the more “transporting Pleasures” associated with the sublime (John Dennis, qtd. in Nicolson 278). This tradition of the mountain sublime is the one with which the Arctic became associated in the nineteenth century. As Loomis specifies, like the mountain sublime, the Arctic sublime “partly depended on its imagined emptiness as well as its vastness and coldness. It was imagined to be not only inhuman but even inorganic” – a representation of “the great cold forces of nature” (Loomis 110).

Burke disclosed the influence the aesthetics of the infinite had on his theories of the sublime as he in his *Philosophical Enquiry* claimed that “hardly any thing can strike the mind with its greatness, which does not make some sort of approach towards infinity” (44). Some thirty years later also Immanuel Kant linked the concept of the sublime to the mind’s intuitive sense of the infinite. According to Kant, the sublime involved the imagination “thrusting aside” the barriers of sense perception, through this removal gaining “a presentation of the infinite” and “a feeling of being unbounded” (127). Thus in his 1790 *The Critique of Judgement* Kant defined the sublime as that which is “*absolutely*” or “*beyond all comparison great*” (94). And whereas all the magnitudes of the world – the cosmos itself included – could be divided into small units and understood by the imagination, only transcendental or “supersensible” reason (Kant 103) could comprehend the totality or “*whole*” of magnitudes “in *one* intuition” (Kant 102). Accordingly, sublimity was an expression of that which led the mind beyond the realm of the senses and towards that of transcendental reason. Kant differed from earlier theorists of the sublime in claiming that “the sublime is not to be looked for in the things of nature, but only in our own ideas” (97). In meeting with and attempting to represent the sublime, Kant maintained, both nature and the imagination found themselves “sinking into insignificance before the ideas of reason” (105).

Kant’s definition of the sublime as that which is “*absolutely*” or “*beyond all comparison great*” included the concept of a *mathematically sublime* (or *sublime of extension*) to which we have already referred, as well as the concept of the *dynamically sublime in nature* (94). In the *dynamical sublime* the mind moved from a recognition of the “*might*” of nature, to the recognition that despite this might, nature “has no dominion over us” (Kant 109). According to Kant, the reason why nature, despite its might, holds no ‘dominion’ over the human is because “it challenges our power (one not of nature) to regard as small those things of which we are wont to be solicitous (worldly goods, health, and life) ... once the question becomes one of our highest principles and of our asserting or forsaking them”

(111). Thus like the mathematical sublime, the dynamical sublime involves the recognition of the “non-sensuous standard” of the faculty of reason, in comparison with which everything in nature is small or holds no power (Kant 111). In the dynamical sublime, the human “highest principles” are what constitute this standard and hence what are ultimately and “*beyond all comparison great*” (Kant 111, 94). The dynamical sublime is the sublime *in nature* because it is in contact with the *might* of nature we come to have this realization.

Now in just the same way the irresistibility of the might of nature forces upon us the recognition of our physical helplessness as beings of nature ... at the same time [it] reveals a faculty of estimating ourselves as independent of nature, and [we] discover[] a pre-eminence above nature that is the foundation of a self-preservation of quite another kind from that which may be assailed and brought into danger by external nature. ... Therefore nature is here called sublime merely because it raises the imagination to a presentation of those cases in which the mind can make itself sensible of the appropriate sublimity of the sphere of its own being, even above nature. (Kant 111)

In Kant’s interpretation, only to the extent that natural phenomena evoke an intuition of their infinity, and subsequently an intuition of the absolute greatness of the human faculty of reason, can these phenomena be associated with the sublime.

Kant’s theories of the sublime help us understand why expedition followed expedition to the Arctic, even as evidence of hardships and disasters accumulated. To explorers of the nineteenth and earlier centuries, engaging in strenuous and extremely dangerous excursions into the vast and unmapped, the Arctic would no doubt evoke a sense of infinity. Yet the encounter with this harsh natural environment was believed, as evident in the above quotation, to engender in men of a noble disposition a mental response involving the expansion of the mind beyond the world of sense impression and their own “physical helplessness as beings of nature” (Kant 111). In tackling the vastness of space that was the Arctic, brave explorers would transcend the bonds to the material reality through which they struggled and somehow come to partake in a vastness parallel to but ultimately surpassing the vastness of this space (Loomis 107).

The aesthetics of the sublime came with two important qualifications. The first was the requirement of obscurity. “To make any thing very terrible,” Burke wrote, “obscurity seems in general to be necessary. When we know the full extent of any danger, when we can accustom our eyes to it, a great deal of the apprehension vanishes” (40). The second was the requirement of distance. In order to yield the mixture of terror and delight characteristic of the aesthetic experience of the sublime, the object evoking ideas of “danger or pain” should not

“press too nearly” (Burke 25). Only at “certain distances, and with certain modifications” could objects evoking the terrible be “delightful” (Burke 25). If the object were too close, the viewer would be so captivated by fear that he could make no aesthetic judgments (Burke 25). Also Kant maintained that “it is impossible to take delight in terror that is seriously entertained” (110). Accordingly, the sublime involved to Kant a distanced view of terrors that the viewer needed not “be afraid *of*,” but that he might simply picture himself as up against and offering resistance to, and “recognizing that all such resistance would be quite futile” (110).

Real and imagined distance

It is within this aesthetic tradition we must understand the application of the natural sublime in the narratives of Scoresby and other nineteenth-century explorers. This tradition also explains why Scoresby’s *Account* presents the arctic sea ice in the objective language of the scientific account, while it reserves the aesthetics of the natural sublime for the presentation of mountainous arctic landscapes, including icebergs. The one exception to this rule is Scoresby’s description of the sublimity of watching colliding ice fields from a safe distance (247). Otherwise the “peaks and acute mountains” of ice-covered Spitzbergen is where Scoresby finds “numerous examples of the sublime” (93, 94). Here are “stupendous hills rising by steep acclivities from the very margin of the ocean to an immense height” and hills of “dark-coloured rocks, with the burden of purest snow and magnificent ices,” all within landscapes that “seem to ‘rise crag above crag,’ in endless perspective” (Scoresby 94, 104). In a later, more lyrical, passage we find Scoresby exclaiming that

[t]here is, indeed, a kind of majesty, not to be conveyed in words, in these extraordinary accumulations of snow and ice in the valleys, and in the rocks above rocks, and peaks above peaks, in the mountain groups, seen rising above the ordinary elevation of the clouds, and terminating occasionally in crests of everlasting snow (110)

Clearly influenced by the aesthetics of the sublime, Scoresby here presents the landscape of Spitzbergen as one of unending dimensions, and as transcending human notions of time and capacity for language. And although he and his party in July 1818 came into very close and perilous contact with this landscape on a climb on one of Spitzbergen’s Seven Icebergs, his subsequent description of the difficulties navigators face in gauging the distance to this and other arctic landscapes emphasizes their distant and unapproachable nature.

Scoresby even provides an illustrative example of the uncanny distance of arctic landscapes in his tale of the Dane Mogens Heinson. After bravely fighting his way through tremendous storms and great dangers, Heinson finally believed his ship to be quite close to the coast of Greenland. However, after sailing for several hours in favorable wind without seeming to get any closer to land, Heinson started suspecting that he was being held back by unseen magnetic rocks at the bottom of the sea, and became so “alarmed” at that he “tacked about, and returned to Denmark” (112). Fooling Heinson and other travellers into fear through its peculiar optical illusions, the Arctic in Scoresby’s narrative retains its distance and sublimity.

The demand for distance in the aesthetics of the arctic sublime did not, however, remain unchanged or absolute. In *I May Be Some Time* Francis Spufford’s explains how the arctic sublime came to allow for and include threats much closer to the observer than was the case for earlier and more original versions of the natural sublime. Spufford turns to the work of late eighteenth-century female writers of gothic novels for evidence supporting his claim. Well versed in “Burke’s menu of sublime effects,” these women played in their fiction with the opposition between male activity and female passivity, employing the aesthetic categories of the sublime and the beautiful to do so (Spufford 33). As long as the threat faced by the heroines of this fiction conformed to the “sublime pattern of dangers” and was obscure enough not to identify the specific ways in which self-preservation was threatened, they could “feel the sublimity of the threat” even while facing this peril (Spufford 36). These gothic novels furthermore invited their readers to identify with something stronger than the self and “bent on menacing” the self (Spufford 36). In this manner, writers of gothic novels undermined the sublime’s requirement for distance.

For Spufford, this fictionally reworked idea of the sublime functions better than the original to explain real-life polar explorers’ attraction towards a natural environment that was constantly threatening to extinguish their lives. The obscure but immediate and ubiquitous threats of intense cold, sudden violent storms and the movement of ice confirmed the authority of the sublime Arctic, and the explorers, Spufford claims, “responded by identifying themselves with its sublimity, glorying in the place even as it thwarted or even hurt them” (37). To elicit a sense of identification with the arctic environment without diminishing its power to thwart and overturn human plans, aspirations and orders, is precisely the aim of *Arctic Dreams*.

Lopez uses Scoresby's *Account* to give us an idea of the nineteenth-century natural sublime in an arctic setting. But instead of selecting one of the more obvious and traditional mountain sublimities to do so, Lopez chooses Scoresby's representation of the colliding ice fields. This ice field sublime is evoked in a scene in which Scoresby has had to abandon his ship, which is caught in enormous fields of moving ice off the east coast of Greenland. As Lopez reports, Scoresby is "mesmerized" by the "sheer power" and "daunting scale" of the ice that is threatening to slowly crush his ship (Lopez *AD* 214). Although neither author explicitly identifies this as a sublime moment, Lopez's description of Scoresby's emotional response and his positioning in relation to the scene reveal it to be one. Scoresby's response arises when he is some distance from the ship, and at a point at which he has "lost the sense of plight that spurred him," become oblivious to "the pleading whining that [comes] from the ship's pinched hull," and turned into a mere "careless spectator" of the entire ordeal (Lopez *AD* 214, 215; cf. Scoresby 247, 250).

With the selection of this particular scene, Lopez associates the sublime not with unmoving mountains, but with dynamic and clearly agentic parts of the landscape. He also emphasizes the paradox involved in the application of an aesthetics of distance and transcendence in circumstances like these. Whatever emotions are evoked, and whatever response the mind has in this sublime moment of detachedness, Scoresby will soon lose his role of 'careless spectator.' Because he and his men, like other early travelers in the Arctic, are absolutely dependent on their ship to protect them from the obscure but ubiquitous threats of an environment too cold, too unsheltered, and (in most cases) too barren to sustain them, any threat to these cocoons of safety becomes an immediate threat to self-preservation and a reminder of their own "physical helplessness" in meeting with "the irresistibility of the might of nature" (Kant 111).⁷⁴ Unlike more southern mountaineers facing terrible mountain vistas or the raving destructions of distant thunderstorms, Scoresby cannot merely walk away from the sublime scene. Instead he must walk back into the life-threatening chaos and fear caused by the moving ice fields. Accordingly, his mind will soon find itself neither completely stunned by fear nor free to disengage from concrete reality and slip into transcendental contemplations of its own dominion over nature. Rather, it will be deeply

⁷⁴ Scoresby himself comments on this fact in stating that "stupendous effects" caused by the collision of ice fields of enormous weight and extension, when witnessed "in *safety*, exhibits a picture sublimely grand" (Scoresby 247). "[B]ut where there is danger of being overwhelmed," he continues, "terror and dismay must be the predominant feelings" (Scoresby 248).

engaged in the practical consequences of the very real and direct contact with the agency of ice, currents and weather. Hence, in arctic scenes like this, the aesthetic distance evoked is exposed as a constructed, *imagined*, or merely temporary distance.

Arctic Dreams makes it very clear that most travellers to the Arctic could not afford the luxury of distance required by traditional aesthetics of the sublime. In the Arctic, Lopez writes, “ice at rest one minute was moving the next” (*AD* 215). “Damage was routine, some of it serious” (*AD* 216). And even if icebergs could sometimes offer momentary refuge for ships stuck in the moving sea ice, they would suddenly disintegrate, leaving the crew again to battle the elements. In this place of water and moving ice, of overpowering meteorological forces and life-threatening cold, the threat to self-preservation was ubiquitously present and often so physically invasive as to make all aesthetic considerations impossible. Instead, the narratives of arctic travel to which *Arctic Dreams* refers are replete with images of how meetings with icebergs and ice-cold water left the travellers physically exposed and battling against the overpowering forces of a dangerous environment. Thus through the scene from Scoresby’s *Account*, Lopez evokes the idea of a traditional arctic sublime while simultaneously questioning the requirement of distance implicated in this aesthetics.

Alleviating terror, coming closer

So far our discussion has revealed the extent to which the idea of the sublime is associated with the positioning of the observer – both physically and mentally. This indicates that Lopez’s ice phenomena can be depicted in a different manner than in nineteenth-century accounts not only because of Lopez’s recourse to updated scientific knowledge of the physical qualities of ice, but also because their direct threat to human life has been alleviated. Modern advancements in transportation, navigation and communication systems have greatly improved the safety of arctic travel, and made it possible for men and women less heroic and more reliant on modern comforts than the former explorers to enter the Arctic as visitors. In the following we will see how this reduction in the component of threat allows Lopez to present arctic ice landscapes in new and less distancing ways.

Lopez first introduces his readers to the experience of icebergs in a scene that takes place aboard the *MV Soodoc* in the northern Labrador Sea. It is dark, and a storm is approaching, carrying with it “a picket line of ice the size of cathedrals” (*AD* 204). Under these circumstances, the ship’s radar is unable to distinguish the icebergs from the surrounding sea, and Lopez and the crew face a very real danger of having to suddenly

abandon ship and lower away “into ice and darkness in 20-foot seas,” being “brought down to the raw edge of life” like arctic travelers in earlier centuries (*AD* 205). Although this ominous situation, as he puts it, left “some of us” sleepless, Lopez purposefully refrains from associating his first representation of icebergs with the Burkean sublime of terror. Instead he chooses to present the incident of ‘near-encounter’ in the neutral and objective language characteristic of arctic exploration narratives; to report the ‘terror’ of the storm scene only in calm retrospect, and only as the theoretically possible outcome of a storm that never hit. “We passed in peace” (*AD* 205).

After having thus evoked the threat of an iceberg encounter that never took place, Lopez proceeds to give a detailed depiction of his experience of peacefully observing icebergs in the tranquil atmosphere of the following day. In watching these enormous structures from the bridge of the *MV Soodoc* as they glide past, Lopez reveals how his observer position leaves him half protected, half exposed to the elements: “I rested my forearms on the sill, feeling the warmth of the bridge heaters around my legs and a slipstream of cool air past my face” (*AD* 206). The description draws attention to how differences in modes of transportation influence the conception of landscape at different points in historical time. Lopez is aware that the modern “machinery” that supports his experiences in the Arctic “compresses time and space, and comforts [...] because of the authority with which it keeps danger at bay” (*AD* 218). Accordingly, to the extent that his own depictions of arctic natural environments differ from those found in the historical narratives to which he refers, this might be a consequence of Lopez’s change in physical positioning, and of an associated change in the perception of threat. “[F]rom these quarters, its scale reduced,” Lopez writes, “we appraise the landscape very differently” (*AD* 218).

One might suspect that this difference in physical positioning would create an even stronger sense of the Kantian sublime in Lopez’s text, as it seems to testify to the power of the rational mind to produce the technology that secures our simultaneous protection from and dominion over the natural world. There are two reasons why this does not happen. One is that Lopez’s experience during the night of the storm has caused him to imagine what would ensue should this well-protected ship hit an iceberg. Another reason is that Lopez’s text assumes a historical and textual in-between position that parallels the narrator’s partly exposed physical one, and presents two different viewpoints on arctic natural phenomena: that of the safe and well-protected contemporary traveller *and* that of historical whalers and explorers whose very lives were at stake in physical encounters with these ice phenomena.

This dual point of view leads to Lopez giving several paradoxical depictions of ice. One of the most striking of these is of the sea ice as simultaneously life-generating and ‘the great silencer’ of heroic explorers like Frobisher, Davis, and Baffin (*AD* 205). Another example is found in the passage below, in which icebergs are figured both as victims of violence and sites of tremendous power. Although close by, they seem somehow remote, and due to the fact that “four-fifths of [their] height and seven-eighths of [their] mass” exists beneath the water line, they are both visible and invisible (*AD* 208). Through all of this, as in the way they both reflect and trap light, icebergs embody the contradictory qualities that Burke associated with the sublime.

Following the night of the anticipated storm, in daylight and calm Lopez proceeds to give us the kind of detailed description of icebergs that the relative safety and comfort of the *MV Soodoc* allows:

The first icebergs we had seen, just north of the Strait of Belle Isle, listing and guttered by the ocean, seemed immensely sad, exhausted by some unknown calamity. We sailed past them. Farther north they began to seem like stragglers fallen behind an army, drifting, self-absorbed, in the water, bleak and immense. ...

Farther to the north they stood on their journeys with greater strength. They were monolithic; their walls, towering and abrupt, suggested Potala Palace at Lasha in Tibet, a mountainous architecture of ascetic contemplation. ... I would walk from one side of the ship to the other, wondering how something so imposing in its suggestion of life could be approached so closely, and yet still seem so remote. It was like standing in a dirigible off Annapurna and Everest in the Himalayas. (*AD* 206)

Lopez here uses personification to portray icebergs as having life. Personification is an efficient way of ascribing a sense of life and/or agency to non-living matter, and was a literary trope much in vogue among Romantic writers. However, as noted in Chapter Seven, Lopez very rarely applies this trope, and the passage above is the only one in *Arctic Dreams* in which we find a natural entity persistently portrayed in human form. A more contemporary characteristic of Lopez’s icebergs is the way they change according to context. In the southernmost part of their range, they seem like victims of violence, affected by a battle between north and south that reverses the traditional aesthetic association between violence and latitude. Further north, they become stronger and more majestic, until their mountainous forms bring associations with the most sublime of all mountain landscapes: the Himalayas. This association confirms the affective power of Lopez’s icebergs, and ties his representation to the Romantic tradition of the aesthetic contemplation of alpine glaciers (Wilson). However,

the reference to Potala Palace, rather than to the Alps of Europe, subtly expands the Romantic search for the world's underlying unity from a conventionally presumed Western origin to include the eastern philosophy of Buddhism.⁷⁵

Lopez makes use of the fact that several human cultures associate mountains with spirituality to re-direct the idea of spirituality away from the Western Christian tradition. Accordingly, upon first approaching the icebergs, Lopez describes the experience as one for which he “had been waiting quietly for a very long time, as if for an audience with the Dalai Lama” (AD 206). Lopez’s references to Buddhism and the Himalayas signal that a modern understanding of icebergs should not be restricted to one cultural or historical point of view. Thus, in the same way as the first half of *Arctic Dreams* allows the reader to envision arctic natural environments from the point of view of various of their animals, Lopez’s portrayal of icebergs activates several physical perspectives and hints at other possible cultural ones. While the phenomenon of icebergs, and the scientific study of them, is by necessity dependent on the physical context, knowledge production in general should aim to transcend established categories while still maintaining an awareness of the very cultural and historical context of this transcendence.

Another characteristic feature of the icebergs described in *Arctic Dreams*, and one that clearly distinguishes them from the icebergs of Scoresby’s *Account*, is the scientific description of how they generate rather than threaten life. “The suggestion of life” around the icebergs, writes Lopez, “was not an illusion. Harp seals and flocks of seabirds were drawn to fish schooling in the nutrient-rich waters at their base – an upwelling driven by fresh-water runoff from the iceberg” (AD 206). His portrayal allows life and agency to these structures, which in Scoresby’s text are inherently passive.

In Scoresby’s description, icebergs

differ a little in colour, according to their solidity and distance, or state of the atmosphere. A very general appearance is that of cliffs of chalk, or of white or grey marble. The sun’s rays reflected from them, sometimes give a glistening appearance to their surfaces. Different shades of colour occur in the precipitous parts,

⁷⁵ In a brief introduction to Buddhism, Fritjof Capra writes: “As always in Eastern mysticism, the intellect is seen merely as a means to clear the way for the direct mystical experience, which Buddhists call the ‘awakening.’ The essence of this experience is to pass beyond the world of intellectual distinctions and opposites to reach the world of *acintya*, the unthinkable, where reality appears as undivided and undifferentiated ‘suchness’” (Capra 106).

accordingly as the ice is more or less solid, and accordingly as it contains strata of earth, gravel, or sand, or is free from any impurity. In the fresh fracture, greenish-grey, approaching to emerald-green, is the prevailing colour. (254-55)

One hundred and sixty years later, Lopez provides us with an almost parallel description of icebergs:

Where the walls entered the water, the surf pounded them, creating caverns, grottoes, and ice bridges, strengthening an impression of sea cliffs. ... Where meltwater had filled cracks or made ponds, the pools and veins were milk-blue, or shaded to brighter marine blues, depending on the thickness of the ice. If the iceberg had recently fractured, its new face glistened greenish blue – the greens in the older, weathered faces were grayer. In twilight the ice took on the colors of the sun. ...

The burden of rocks, gravel, silt, and sand that icebergs carry within them streaks their sides; as they melt, they rise higher in the water and the debris in their shoal water creates a series of waterline marks. As they fracture and tilt, the patterns of water-line marks cross at odd angles and slant skyward. (AD 207)

Lopez presents more or less exactly the same iceberg features as does Scoresby. Yet Lopez's modern perspective evokes a completely different conception of these natural phenomena. Through their interaction with air and ocean, light and rocks, Lopez's icebergs undergo constant processes of change. These processes become inscribed into the icebergs' very structure, enabling us to read their lives from their physiognomy. Like sea ice, icebergs are features of the landscape through which the world's creative forces manifest themselves on a shorter time-scale than the geological one on which glaciers operate. This relative time compression is another reason why Lopez's portrayal of the Arctic supersedes Romantic portrayals of the agentic quality of matter. Icebergs may look like mountains but, made up as they are of travelling, more easily morphing matter, they are more life-like and more unpredictable than the glaciated mountain faces of the Alps.

In Lopez's representation of icebergs, human form and agency are superimposed upon matter through personification. However, this matter already has an agency of its own, and the human is not the only form the ice takes. In one particularly interesting iceberg, we find "a human forehead against the sky," "the pattern of a sperm whale's lacerated tun," and "[f]loating, orographic landscapes," some of which have surfaces of "raw jade" and "abraded obsidian" (AD 207). Expressive of the larger poetic project of *Arctic Dreams*, through its imagery this iceberg unites humans and animals, ice and mineral landscapes into a living, evolving unity. Combining lifelike characteristics with qualities and dimensions unknown, icebergs are to Lopez "creatures I have never seen before" (AD 208).

With their presentation as “creatures” combining life-threatening and life-generating qualities, Lopez’s depiction of icebergs begins very subtly to evoke a new sense of sublimity. “[T]he behavior of light around the icebergs” – how they take “their dimensions from the light” and “their color from the sun, and from the clouds and the water” – makes him marvel (*AD* 206). Nevertheless, much of the description continues in the objective language of science:

It seemed almost superfluous, but the third mate took the measure of one with his sextant: 64.7 meters high by 465.4 meters long (212.27 by 1526.88 feet). Another is 70.4 meters high by 371.0 meters long (230.97 by 1217.19 feet); but the numbers cannot encompass them. The ice reaches far below the surface of the water and stretches away in a third dimension. It is impossible to know how much of it lies beneath the water And the shape of each one changes as our ship passes. New valleys, slopes of wind-packed snow, ramparts and spires, and columnar bluffs come into view. Another set of measurements of the same iceberg turns out differently. (*AD* 207-8)

Although the passage presents objective facts about the icebergs, these very facts hint that icebergs are somehow beyond accurate measurement or knowledge. As Lopez puts it: “numbers cannot encompass them.” Not merely are their forms and mass unknowable in the sense of being beyond immediate human perception and constantly undergoing change (how indeed would you calculate the exact the mass and shape of the submerged part of a floating iceberg in its slow but continuous process of melting and changing?), they also vary according to the observer’s position in relation to them. As we shall see in the following, precisely this quality of ‘existing beyond accurate measurement or knowledge’ becomes important to Lopez’s reworking of the traditional natural sublime. Whereas this quality, in the quotation above, represents a reworked form of the Kantian sublime of magnitude, in other instances in the text it takes on other meaning.

Changing the iceberg metaphor

As our discussion of the dualisms at work in *Arctic Dreams* has already disclosed, *some of* this text’s particulars take on symbolic meaning. These are light and darkness, and by association: icebergs. Lopez simply cannot refrain from relating to the Western tradition of symbolic representation of the Arctic. This would create a narrative as culturally ‘single-visioned’ and historically de-contextualized as those nineteenth-century exploration narratives whose representations of the Arctic Lopez intends to update. Yet after having abstained from

both symbolism and anthropomorphism in his animal chapters, Lopez's use of these techniques in the chapter on ice and light becomes conspicuous, and worthy of closer investigation.

Icebergs are the most symbolic of all the physical particularities of Lopez's Arctic. As Slovic perceptively points out, in his encounters with icebergs Lopez is "grappling with language, ... grasping for metaphors" in order to "get the images just right" (*Seeking* 161). Looking at the number of culturally determined images Lopez projects onto his icebergs, I will in the following analysis bring out the intentionality and cultural critique implicit in this act of 'grasping.'

A closer look at Lopez's description of the way the icebergs change as they float by reveals how he subtly mixes into the topographical description of mountainous forms the imagery of cathedrals; of ramparts, spires and columns. But after making use of new scientific knowledge and new concepts of situatedness to endow icebergs with life and agency, why does Lopez insist on projecting onto these structures the culturally loaded imagery of mountains and cathedrals? Why does he continue to grasp among old and seemingly outdated metaphors when he seems to have found even better new ones? This question becomes especially pertinent considering that Lopez elsewhere explicitly warns his readers that "[t]he risk we take" in applying metaphors as tools for understanding new places or stretches of land "is of finding our final authority in the metaphors rather than in the land" (*AD* 247). The answer lies in how Lopez uses this process of grasping to display the range of metaphors with which icebergs may be described, while simultaneously examining a few of the most common ones used by Westerners traveling in the Arctic. I believe that by displaying his own reflections on the origin and function of a few of these metaphors, Lopez aims to enhance his readers' awareness of the very processes involved in how we understand the land, and the significant part metaphorization plays in these processes. The examination of how "we bring our own worlds," our own cultural metaphors and symbolic meanings, "to bear in foreign landscapes" becomes in *Arctic Dreams* yet another way in which "[t]he land urges us to come around to an understanding of ourselves" (*AD* 247).

Lopez's subsequent discussion of the cathedral metaphor provides an example of the transposition of symbolic systems of signification from the home context to the Arctic. In its application to the mountain-like structures of icebergs, the cathedral metaphor generates associations with an American Christian tradition of reading mountains as cathedrals (Cronon 75), as well as with the more Burkean mountain sublime that would later influence

conceptions of the arctic sublime. Lopez argues that the “appropriateness” of the cathedral metaphor holds a more profound significance than obvious similarities of “line and scale” (*AD* 248). It has to do with the “passion for” and symbolic interpretation of light in Western culture (*AD* 248). Lopez finds the gothic cathedrals of Europe – “with their broad bays of sunshine, [their] flying buttresses that let windows rise where once there had been stone in the walls” – to express a cultural longing for light, and for a “God” who “is light” and mind (*AD* 248).

The striving for a relationship with something larger than the self is the aim of Lopez’s exposition of the Western symbolism of cathedrals, and what causes him to juxtapose this exposition with its critique. To Lopez, “the erection of the cathedrals” represented “the last wild stride European man made before falling back into the confines of his intellect”; a confinement from which nothing except “a more complicated manipulation of materials, a more astounding ... grasp of the physical principles of matter” has been accomplished (*AD* 250). To get away from this intellectual confinement and engage once more in striving for a relationship with something outside the self necessitates a symbolic re-interpretation of light, and of God. Based on other scenes from his travel narrative, in which he alternately delights in or despairs of the physical influence of light on his body, one might be tempted to conclude that Lopez is searching for a new materialist understanding of light. But what his text combines is both this physically concrete and sensory impression of light and a more Romantic sense of its interconnectivity.

Through his detailed and scientific depictions of arctic ecosystems, Lopez represents light as the physical energy that binds all things together: living things that rely on light’s energy to provide them with open waters, green fields, and other elements for nourishment, as well as non-living but agentic things like icebergs that attract, distort, and take their “dimensions” and “color” from the light (*AD* 206). As a complement to this, he creates an aesthetic and symbolic sense of light through references to nineteenth-century landscape painting. In this respect, his discussion of the difference between European and American traditions is significant. Whereas the European tradition, Lopez claims, presented pastoral landscapes to its viewers, “the world viewed from a carriage window,” North-American visual artists had to “struggle with light and space” in facing the enormous open spaces of the new continent (*AD* 245). Through this struggle, American luminists developed paintings in which the atmosphere was “silent and contemplative,” and in which the “light [was] like a creature, a living, integral part” of landscapes represented as “numinous, imposing, real” (*AD*

245). Lopez thus implies that North-American visual artists have managed to evoke a different, more sensory interpretation of light, without robbing it of its spirituality. Lopez reads this symbolic re-definition of light, which departs from traditional Christian interpretations, as running parallel to a re-conceptualization of landscape away from the “merely symbolic” European tradition of landscape painting (AD 245). Both of these aesthetic developments progressed towards a distinctly American understanding of the land as a concrete and determining presence in human life.

Following this re-conceptualization of light, Lopez proceeds to re-define one of the central concepts of Christian spirituality: *agape*. Rightfully defining *agape* (or *charity*) as “the love of another for the sake of God” (AD 250), Lopez does not include in his definition the way in which *agape* is traditionally understood as the manifestation of “the reciprocal love between God and man” (“charity”). Instead, he expands the concept away from its anthropocentric origin and towards the experience of “spiritual affinity with the mystery [it] is ‘to be sharing life with other life’” (AD 250). *Agape* becomes to him:

a humble, impassioned embrace of something outside the self, in the name of that which we refer to as God, but which also includes the self and is God. We are clearly indebted as a species to the play of our intelligence; we trust our future to it; but we do not know whether intelligence is reason or whether intelligence is this desire to embrace and be embraced in the pattern that both theologians and physicists call God. Whether intelligence, in other words, is love. (AD 250)

Lopez here superimposes a relationality based on love upon the material relationality of arctic phenomena presented throughout the text, suggesting that the two come together in a new understanding of the nature of God. While Christian love is re-defined in relational, ecological terms, God is re-defined as the interconnectivity of all things. As a result, the barriers between God and the self, and between the self and ‘other’ non-human life outside the self, are diminished.⁷⁶ In this manner, the dimension of love and care extends along with the human’s sense of social and material relationship into the relational networks of the natural environment.

Only after having thus been associated with the ‘sharing of life with other life’ – with the ‘embracing of something outside the self’ – do the icebergs of *Arctic Dreams* become

⁷⁶ Also Neil W. Browne has commented on how in *Arctic Dreams* “[t]he impassioned *relationship* between self and world replaces a traditional God” (156).

truly sublime. As he watches them one last time from the *MV Soodoc*, Lopez now finds the icebergs “so beautiful” that they make him “afraid” (*AD* 251). Although his recent allusions to spirituality may tempt readers to interpret the effect of the icebergs on Lopez in terms of a Romantic poet’s attunement to the workings of a transcendental or universal mind, an awareness of the setting in which the scene takes place disrupts this interpretation. Lopez’s final experience of icebergs is not that of a lone traveller intuiting the overwhelming forces of the natural elements. Rather, it is a physically comfortable experience shared with the ship’s second engineer, who has drifted into the Arctic from Guyana. It ends with Lopez gazing over “the extraordinary fluidity of [the geometry of ice] on the calm waters of Melville Bay” (*AD* 251). The “extraordinary fluidity” of the ice signals the way in which absolute certainties in Lopez’s portrayal of the Arctic have disappeared before the physical and cultural relationality and creative ‘play’ of the world. There is order to the Arctic’s physical environment, but this order is neither universal nor unchanging.

Lopez’s icebergs bring together ice and light. They are at one and the same time real, embodied parts of the land and carriers of symbolic meaning. In his final description of them, Lopez reflects on how they “so embod[y] the land. Austere. Implacable. Harsh but not antagonistic. Creatures of pale light” (*AD* 251). Thus ends a chapter in which the nature of both ice and light have been explained in great scientific detail. The ‘grasping’ for metaphors that Lopez has enacted in his depictions of icebergs has allowed a juxtaposition of old cultural and symbolic imagery with modern scientific (and ecological) metaphors that works to criticize the overly simplistic and overly symbolic understanding of light and icebergs in Western culture. Through this juxtaposition, the nature of both symbols changes. The icebergs are no longer antagonistic, threatening structures, but parts of the land in its all-inclusive relationality: parts that – if you look closely – make you aware of your relationship with that which exists outside yourself. The imagery signals this change in signification in the way in which the light of the icebergs has faded slightly, perhaps as a result of the way their new ontological position blocks them from being interpreted as mere physical structures reflecting God’s spirituality. Lopez’s icebergs are no longer mere structures, but *creatures* engaged in the absorbing, reflecting, and transforming of light, as well as in the giving, taking, and shaping of life.

It should be noted that the depiction of icebergs is among the very few instances in which Lopez digresses from his generally empirical presentation of physical arctic phenomena. He does so in order to endow the material world with spirit in a way reminiscent

of nineteenth-century Romantic poets. The evocation of this spiritual dimension allows Lopez to engage in a critical dialogue with the well-established tradition of aesthetic representation of arctic landscapes in general, and icebergs in particular. It also engages us on a more profound and/or emotional level than the text's earlier and more scientific presentations have managed to do. The activation of this more affective response is crucial to the text's establishment of alternative value judgments and to its criticism of our culture's focus on rationality and enlightenment.

Simultaneously beautiful and evoking fear, icebergs become the hallmark of the revised form of the arctic sublime in Lopez's text, in which, as we shall see, the sublime and the beautiful come together. The need for this revision is occasioned by the manner in which certain aspects of the traditional natural sublime work against the eco-centric understanding and representation of landscape that Lopez wishes to establish in his text. As literary critics have argued in recent decades, if we examine the traditional conception of the natural sublime in more detail, the apparent eco-centricity of this aesthetics is easily deconstructed.

Sublimity, sociality, and the other

Spufford declared the requirement of distance to be alleviated in expressions of the arctic sublime present in nineteenth-century exploration narratives. The scene from Scoresby's *Account* that Lopez selects for his presentation of the natural sublime implies a questioning of the viability, within an arctic environment, of a mode of aesthetics that operates on the condition of distance (or on threats *imagined*) between the observer and the object evoking fear. In this sense *Arctic Dreams* continues Spufford's deconstruction of the distance requirement of the arctic sublime. The following subchapter will look into other revisions of the aesthetics of the sublime. It will focus on expressions of this aesthetics in which the concept of the sublime is combined with the concept of the beautiful, and then turn to investigations of how the two come together in Lopez's text.

The positive but egotistical sublime

Thomas Weiskel has demonstrated that Kant's dynamical sublime involves a three-phase mental movement in which the determinate or ordinary (first phase) "habitual relation of mind and object suddenly breaks down ... and there is an immediate intuition of a disconcerting disproportion between inner and outer" (Weiskel 23-24). This breakdown occurs when

“phenomenal nature exceeds the capacity for our sensible or cognitive faculties” (Hitt 614), and marks what Weiskel terms the second phase of the Kantian sublime. In this second phase the subject has an “unmediated experience of nature,” before the ideas of reason intervene to mend the dissonance (Hitt 614). Theorists like Hitt and Evernden have emphasized that this state of unmediated experience is one in which the understanding (which according to Kant applies human-made concepts in order to make sense of the world) fails, leaving the experience beyond the realm of the *logos* (Hitt 614). In the final “third, or reactive phase” of the dynamical sublime “the mind,” according to Weiskel, “recovers the balance of outer and inner by constituting a fresh relation between itself and the object such that the very indeterminacy which erupted in phase two is taken as symbolizing the mind’s relation to a transcendent order” (24). To empiricists like Lopez, the meta-character of this new relationship of the mind to the ideas of its own transcendental reason is problematic precisely because of the way phenomenal reality dissolves into the ideal (Hitt 611); or, to use Kant’s phrase, nature “sink[s] into insignificance” (105). This kind of meta-relationship further confirms the absolute division between mind and matter that his text aims to overcome.

Anne K. Mellor has drawn attention to how Coleridge and Wordsworth – and, on the other side of the Atlantic, Emerson and Thoreau – “radically transformed the Burkean and Kantian sublime by insisting that the experience of infinite power is attended, not by fear and trembling, but rather by a deep awe and a profound joy” (89). However, Weiskel argues that even this more contemplative, positive, or “egotistical” sublime involves a denigration of the natural world. Although it does not inscribe the dialectics of the mind’s movement away from the world of sense towards the ideas of reason, the egotistical sublime involves a process in which “the two Kantian poles of sensible nature and eschatological destination collapse inward and become ‘habitual’ attributes of what was to be called Imagination – a totalizing consciousness whose medium is sense but whose power is transcendent” (Weiskel 50). Weiskel uses Emerson’s sublime as an example of what he calls the “drastic egotism” of American Romanticism, and of the way the writer’s all-powerful imagination works to transform natural particulars into “substance of mind” (50, 52). In the process of transformation, or rather of *sublimation* (of going from the particular to the abstract), the mind strips the particulars of their natural properties and assigns to them a significance or symbolic value of its own making (Weiskel 59). In this manner the egotistical sublime works to hide “the formal otherness of things” (Weiskel 59). This is why Weiskel can claim that “[a]s the Romantic ego approaches the godhead,” as does Emerson in becoming ‘a transparent

eye-ball,' "the minute particulars which are the world fade out" (Weiskel 62). Hitt similarly comments on this passage on how Emerson's egotism vanishes only for the briefest of moments, before "[h]umility is transformed into self-apotheosis, validating the individual's dominion over the nonhuman world" (608). In this sense the tremendous power of the Romantic Imagination causes the displacement, or even the erasure, of the natural world.⁷⁷

Among that 'formal otherness of things' that the natural sublime works to hide, we also find the otherness of living subjects; of animal and cultural Others, and of women. Like in the writings of Emerson, there is in the poetry of Wordsworth and Coleridge a tendency to turn the experience of unity with the Other into the "joyful recognition of the 'glory' of [the poet's] own Soul" (Mellor 89). Mellor helps us see the gendered dimension of the natural sublime (as defined by Burke and Kant) by highlighting the way it implies "an experience of masculine struggle and empowerment" against the overwhelming and terrifying forces of the natural environment (Mellor 87) – a struggle which the almost exclusively male history of Arctic exploration serves to strengthen. The manner in which this perceived struggle idealizes the autonomy of the masculine subject is expressed in Kant's claim that "[t]o be self-sufficing, and so not to stand in need of society, yet without being unsociable ... is something approaching the sublime" (Kant 129).

In view of the above, the traditional natural sublime may rightfully be accused of reducing the natural world to insignificance, of removing its otherness, and of transforming everything into the sameness of a transcendental human subject, whose power and autonomy is thereby accentuated. There are, however, alternative ways of imagining the sublime that neither distances nor denies the presence of the natural world and its others. We will look at two of these, before proceeding to further analyze how Lopez's in *Arctic Dreams* enacts his re-definition of the traditional arctic sublime.

The beautiful and social

In contradistinction to the Burkean sublime of terror and awe, the beautiful is associated with the pleasurable sensations of "love," "the sensuous enjoyment of life," and with that which arouses the sexual instinct to procreation (Mellor 87). "I call beauty a social quality," writes Burke, "for where women and men, and not only they, but when other animals give us a sense

⁷⁷ We saw much the same process of transformation in the Transcendentalist catalogues.

of joy and pleasure in beholding them ... they inspire us with sentiments of tenderness and affection towards their persons” (27-28). And although Burke includes animals in his delineation of the beautiful, the qualities it otherwise refers to are associated with the feminine: the beautiful is that which is “comparatively small; ... smooth, and polished” (Burke 97). Where the sublime may be “obscure, ... dark and gloomy,” the beautiful should be “light and delicate,” show gradual variation rather than “strong deviation,” and in all aspects appear harmonious (Burke 97). Its gentleness and harmoniousness makes evident that, unlike the sublime, the beautiful poses no threat to order. Accordingly, it does not challenge our understanding of the world to rise above the sensual. This point is made also in Kant’s more disembodied definition, in which the beautiful evokes sensations of pleasure because of the manner in which the form of the beautiful object expresses the conformity of the object to the cognitive faculties brought into play in the reflective judgment of this form. In other words, the perception of the beautiful involves “[t]he quickening of both faculties (imagination and understanding) to an indefinite, but yet, thanks to the given representation, harmonious activity, such as belongs to cognition generally” (Kant 60). Thus whereas the pleasure associated with the sublime takes the form of “rationalizing contemplation” that involves the “supersensible sphere” (Kant 149), the pleasure associated with the beautiful remains on the level of “the ordinary apprehension” of the form of sensible objects (Kant 150).

In inducing ‘a sense of affection and tenderness,’ the beautiful in Burke’s definition creates much the same affective response as the concept of *agape* does – both in its original Christian version, and in Lopez’s re-definition. Because the beautiful is that which does *not* leave the empirical and turn to a transcendental reason whose relationship with the world exists on the meta-level of its own super-sensible ideas, it is able precisely to recognize otherness – and others. As Mellor shows us in her book on *Romanticism and Gender*, this quality of the beautiful caused earlier feminine Romantic writers, whose homes were in the mountainous regions of Scotland, Ireland, and Wales, to merge the beautiful with the sublime in order to portray these landscapes in a manner that included the social dimensions of what was to them “home scenery” (97).⁷⁸ Although male British poets and painters had celebrated

⁷⁸ Mellor mentions Sydney Owenson, Susan Ferrier, and Helen Maria Williams as representatives of this tradition of the feminine, social sublime.

the same landscapes for their sublimity, Mellor shows that the emotional responses these women writers ascribed to their protagonists were not feelings of terror or anxiety. Rather, to the extent that the landscape evoked a “loss of ego or consciousness-of-self” in these texts, this was accompanied by a “heightened sensibility, ... of love, reverence, and mutual relationship” with a nature explicitly gendered as female (Mellor 97). Like in Lopez’s final view of the icebergs, the experience of the sublime did not, in these texts, occur in solitude. The heightened awareness of self this new, more feminine and social version of the sublime produces lead “not to self-absorbed reflection but to communication with other selves” (Mellor 103).

What *Arctic Dreams* seems to share with these feminine Romantics is a representation of landscape as the ground for active participation in social relationships. At the heart of this representation lies an aesthetics of the sublime that aims to substitute a sense of commitment and care for others for the traditional sublime of empowerment and control. As Mellor puts it, the feminine idea of the sublime is associated with an “ethic of care [that] necessarily involves accepting limitations upon the power and gratifications of the individual self” (105). *Arctic Dreams* differs significantly from those earlier texts that form the basis of Mellor’s study because it extends the dimension of love and care from the purely human to the wider human-animal and human-environment relationship networks. Burke’s inclusion of the animal into the category of the beautiful seems to provide justification as well as motivation for this expansion.

The ecological sublime

Hitt’s postulation of an *ecological* sublime moves towards the recognition of others in a slightly different manner. Taking the Kantian dynamical sublime as its starting point, the ecological sublime does not proceed to the realm of the ideal or transcendental, but remains in what Weiskel characterizes as the second phase of the three-phase dynamic of the sublime. As already mentioned, this stage involves the direct and unmediated sense experience of the natural world. Contrary to the way ordinary perception entails “an act of comparison, a matching of impressions to established norms,” this direct sensorial form of perception involves “abandon, a forgoing of intellect in deference to direct encounter” (Evernden *Social* 114). Only in this state of abandon, Neil Evernden claims, are we able to truly encounter the other. In this manner the recognition of otherness becomes associated with the sensual, rather than with the merely conceptual (*Social* 114).

To Evernden, “the experience of radical otherness is at the base of all astonishment or awe” (*Social* 117). By implication, acknowledgement of otherness is at the heart of the ecological sublime. Also the feeling of wonder associated with the sublime has been theorized as “notably and essentially *other-acknowledging*” in a manner that does not imply possession or control (Hepburn 144).⁷⁹ “In wonder,” Evernden writes, “we accept the presence of something entirely distinct and self-possessed” (*Social* 118). Wonder in this interpretation becomes a recognition of that which exists beyond the human; the “ultrahuman” (Evernden *Social* 118) or “posthuman” (Braidotti 1-3). On the basis of these reflections, we might interpret Lopez’ repeated state of wonder in meeting with arctic landscapes and its denizens as expressions of his respectful recognition of that which exists beyond the human.⁸⁰

With respect to Lopez’s use of catalogues, it is interesting to note that the ‘state of abandon’ of the second phase of the sublime is thought to arise from a sensual and “‘material’ imagination, which entails ‘images that stem *directly from matter*’” (Evernden *Social* 115; quotations from Bachelard 1). Hitt uses David Robinson’s analysis of Thoreau’s “Ktaadn” to present the idea that direct and unmediated contact with matter represents an experience beyond “language, reason, *logos*” (Hitt 616). In Thoreau’s “mysteries!” of “*Contact!*” with “hard matter in its home!,” with “the *solid earth!* the *actual world!*,” matter represents an unfamiliar otherness that exists beyond the control or ‘dominion’ of the mind (Thoreau “Ktaadn” 64; cf. Hitt 616). Hence contact with matter gives rise to what Hitt maintains “*is a kind of transcendence*”; but a transcendence of the *logos* rather than of the phenomenal world (616). Under the sensual influence of matter, in other words, human logic and categories fall away. Dispossessed of this perceptual framework, we find ourselves in a state of ‘intellectual nakedness’ that allows us to meet and appreciate the world’s otherness, as it presents itself to us through the senses. In this sense, the recognition of otherness – animate as well as inanimate – becomes a matter of staying with matter.

By remaining in direct and unmediated contact with the material, the ecological sublime counteracts what Evernden calls our “conceptual domestication of nature” (*Social* 116). Similar in impulse to Romanticism’ endeavor to overcome the habitual dulling of

⁷⁹ Hepburn further notes that “[a] close affinity between wonder and *compassion* has been acknowledged by various writers” (145).

⁸⁰ The following discussions will provide several examples of how expressions of wonder in *Arctic Dreams* are part of Lopez’s evocations of the natural sublime.

perception, Evernden's misgivings about our 'conceptual domestication' of the natural world nonetheless involves a concern for otherness that seems generally to be absent in Romantic texts. Through this 'conceptual domestication,' he writes,

we extinguish wild otherness even in the imagination. As a consequence, we are effectively alone. ... The more we come to dwell in an explained world, a world of uniformity and regularity, a world without the possibility of miracles, the less we are able to encounter anything but ourselves ... (Evernden *Social* 116)

Romantic writers of the nineteenth century would no doubt recognize the feeling of alienation Evernden here describes. The source of the feeling, however, would be unfamiliar to most of them. Not so, perhaps, to Henry David Thoreau, who wished to learn to know his non-human 'neighbours,' and whose contact with wild matter – and the realization that even his own body was constituted of this matter – was a source of fear and awe (Thoreau "Ktaadn" 64). In "Walking," his celebratory essay on America and the movement of the human race into the "West" and the "Wild," Thoreau formulated the now famous dictum that "in Wildness is the preservation of the world" (202). As the above quotation from Evernden reveals, nature's wildness is an inextricable part of its otherness. With the recognition of wildness comes the recognition of otherness; both of which are key to an ecologically sound 'preservation of the world.' This kind of 'wildness ethics' re-interprets old cultural assumptions in which the wilderness is the place in which "the boundaries between human and nonhuman" are "less certain than elsewhere" (Cronon 73). Previously associated with moral and spiritual danger, the wilderness in this new interpretation becomes a hopeful place of potential ontological border-crossing and epistemological development.

As evident in its theorizations as well as its artistic expressions, the aesthetics of the traditional natural sublime follows Romanticism in presupposing nature's "permanence," "sovereignty," and "inviolability" (Hitt 618). In times like ours, in which we face human-induced far-reaching ecological change, this seems yet another argument in support of Weiskel's claim that the sublime is "a moribund aesthetic[s]" (6). However, as suggested by the critical work on the sublime visited in this chapter, both the function and the expression of this aesthetics may change in accordance with changing historical and ecological circumstances. The new *ecological* sublime Hitt postulates is ecological also in the sense that its recognition of otherness of the natural world implies a sense of responsibility not to destroy the very foundation for the existence of nature's others. In this sense, the ecological sublime entails an ethics of care.

Lopez's arctic sublime

***Aurora borealis* – material relationships across scales**

After this more theoretical reflection upon the nature of the sublime, let us return to *Arctic Dreams* to examine how this aesthetic mode manifests itself in arctic phenomena other than icebergs. We will begin by looking at how Lopez presents for re-examination one more hallmark feature of the arctic environment that throughout history has received extensive symbolic interpretation: the *aurora borealis*. We have already looked at how Lopez's scientific explanation of this phenomenon accentuates its dualistic forces and reminds us of the material interconnectivity of the world. But in combining the level of the sub-atomic with the level of the cosmic, this explanation has the added effect of engendering a sense of sublimity. For whereas Kant and Burke both regarded vastness as a source of the sublime, Burke also asserted the sublimity of "extreme littleness," of "the infinite divisibility of matter" (52), or that "diminishing scale of existence, in tracing which the imagination is lost as well as the sense" (53). As demonstrated in our previous discussion, the imagery of *Arctic Dreams* in several instances oscillates between the microscopic and the large-scale, without commenting upon this implicit evocation of a Burkean sublime. When it diverges from the strictly empirical in the case of the aurora (like it did in the case of the icebergs), it is in recognition of the fact that there exists in the literature of exploration an unusually consistent reaction to this phenomenon. As Lopez writes: "virtually everyone who wrote down his thoughts about the aurora described, first, the inadequacy of his language and, second, a pervasive and stilling spiritual presence" (*AD* 232).

Lopez's depiction of the aurora begins with antarctic explorer Robert Scott's claim that "[i]t is impossible to witness such a beautiful phenomenon without a sense of awe" (qtd. in *AD* 232). Yet the feeling of awe Scott experiences

'is not inspired by its brilliancy but rather by its delicacy in light and colour, its transparency, and above all by its tremulous evanescence of form. There is no glittering splendour to dazzle the eye, as has been too often described; rather the appeal is to the imagination by the suggestion of something wholly spiritual....' (qtd. in *AD* 232).

Despite its cosmic vastness, the aurora does not produce in Scott a feeling of being overpowered by the forces of nature. Rather, its emotional effect is caused by its very 'delicacy in light and color' and by the sense of spirituality it engenders. By quoting Robert Scott, who lost his life in the race against Roald Amundsen for the South Pole, Lopez makes

the point that even former explorers, engaged in terrible struggles, were able to recognize the beauty of the arctic (or in Scott's case, antarctic) regions. This reference to Scott's description of the *aurora australis* of the Antarctic seems curiously de-contextualized in Lopez's otherwise highly contextualized text. It does, however, contribute to the conceptualization of the two geographical poles as forming a unity, thus paralleling the way the phenomenon of the aurora at each geographical pole consists of positive and negative currents.

Scott finds in the aurora "the suggestion of something wholly spiritual" (qtd. in *AD* 232), and Lopez does indeed open his depiction of the aurora by a brief account of the spiritual meaning this phenomenon has had in different cultures at different points in history.⁸¹ Noting at a later point in the text how auroras "easily evoke feelings of awe and tenderness," Lopez goes on to assert their ability to endow the viewer with a sense of partaking in something larger than the self (*AD* 235). "[T]he most remarkable effect they seem to have," he writes, "is to draw a viewer emotionally up and out of himself, because they throw the sky into a third dimension, on such a vast scale, in such a beautiful way, that they make the emotion of self-pity impossible" (*AD* 235). The experience of being drawn "up and out of" oneself here has clear parallels with the Emersonian contemplative or 'egotistical' sublime, in which the poet reaches a level of awareness in which he feels the self dissolve into the currents of the universal being. However, in Lopez's contemplations of the aurora, the dimension into which the self is thereby drawn is not the spiritual, but the third dimension through which space opens up its vastness. And while this grand magnitude brings associations to Kant's mathematical sublime, the representation of the aurora does not in this scene press the understanding beyond its limit, making it succumb to the ideas of a super-sensible or transcendental reason. Lopez's pedagogical description reveals the aurora to be a phenomenon with vast yet limited extension; one for which science offers explanations on the cosmic as well as on the sub-atomic level. In this manner the aurora reveals the extent to which modern science has radically broadened our basis for what can be empirically known – and hence the realm of the (Kantian) understanding. To the extent that the aurora still remains sublime, this is due to the way it spans scales – from the cosmic to the sub-atomic – and in this manner confirms the radical relationality of all matter. As evidenced in the above

⁸¹ Lopez's account of the aurora's spiritual meaning in different cultures primarily highlights the cultural relativity with which this phenomenon has been interpreted (*AD* 232-33).

quotation, the aurora engenders in the observer a sense of partaking in this relationality of matter, thereby helping him/her to overcome the autonomous subject's sense of solitary existence. This is expressed in the way the aurora, by appearing in Lopez's memory of his travels among the concrete particulars of the landscape, "resolved what could have been only a map into a real landscape" (*AD* 236).

We have now seen how Lopez's depictions of icebergs and auroras advance the idea of a relational form of the arctic sublime. This idea is influenced less by the terrifying yet awe-inspiring natural sublime, than by a contemplative form of the sublime that Barbara Novak finds to be expressed in the smaller luminist works of nineteenth-century American landscape painters. This contemplative form was essentially mystical. It involved "the experience of sublimity through repose," through the "apprehension of [nature's] silent energy" (Novak 34). Novak claims that "Light" was, in this tradition, "more than any other component, the alchemistic medium by which the landscape artist turn[ed] matter into spirit" (36). Through its "silent, *unstirring* energy," light made the universe seem "transparent," and allowed what Emerson described as "the light of higher laws than its own" to shine through it (Novak 37; cf. Emerson 16). The higher laws expressed in this manner by American artists were, of course, the laws of a Christian God.

Scott's description of the aurora seems to be written in just such a mode of quiet contemplation. The immediate dangers of the Antarctic are for the moment either non-existent or held at bay, leaving Scott to reflect upon how the aurora expresses the silent – faint and only slightly stirring – energy of the world. Although Lopez alludes to the sense of spirituality the scene of the aurora evokes, he cannot be accused of using Scott's representation of the aurora in order to turn matter into spirit, or to make the North-American Arctic the expression of the laws of a Christian God. What he aims to bring to his text is another prominent feature of American luminist paintings: their atmosphere:

The atmosphere of these paintings is silent and contemplative. They suggest a private rather than a public encounter with the land. Several critics, among them Barbara Novak in her study of this period in American art, *Nature and Culture*, have described as well a peculiar 'loss of ego' in the paintings. The artist disappears. The authority of the work lies, instead, with the land. And the light in them is like a creature, a living, integral part of the scene. The landscape is numinous, imposing, real. It ceases to be, as it was in Europe, merely symbolic. (*AD* 245)

The silent, contemplative atmosphere here described shows great similarities with the atmosphere of several of the personal anecdotes Lopez presents in *Arctic Dreams*, and one

may indeed read Lopez's paraphrasing of Novak as a description of his own aesthetic project. His warning against the continued and uncritical use of culturally determined metaphors, as well as his expressed aim to draw the reader "back to the concrete dimensions of the land" (AD 12), reveals that Lopez shares the luminists' aim of presenting the Arctic to us in a way that places the "authority of the work ... with the land" (AD 245). We have already seen how the luminist painters' 'loss of ego' has its textual parallel in the way Lopez's aurora "draw[s] a viewer emotionally up and out of himself" (AD 235). And whereas his representation of icebergs re-defines the symbolism of ice and light, his detailed catalogues of light phenomena serve to present the light of the Arctic not only as a "living, integral part of the scene" (AD 245), but indeed as determining for the very nature of this natural environment.

The disappearance of the artist is a prerequisite for the kind of representation in which the authority remains with what is depicted: with the landscape as living, creature-like environment. This explains both Lopez's meticulous factual representation of arctic phenomena and his deliberate aim to use a language that leaves him, as the author of the work, "on the periphery" (Bonetti 66). When his authorial voice intervenes to reflect upon the images presented, or to color them with subjective meaning, this is in most cases clearly signaled, and the author's point of view can be recognized among the text's several others. Lopez's choice to overtly refer to Novak's work on landscape painting rather than to critical work on the literary tradition may be interpreted as a substantiation of his point that landscapes should be investigated from as many angles of vision and forms of knowledge as possible. It could, however, also express an acknowledgement of Novak's claim that nineteenth-century luminists were more successful in the act of "mystic abandonment of self" than their contemporary (male) Romantic and transcendentalist poets (37), who left this 'second phase' of the dynamical sublime for the 'third stage's' cathartic experience of perceiving the world in its sameness.

Ground-nesting birds – social and vulnerable

The previous discussion of the new and more relational version of the sublime found in *Arctic Dreams* revealed this to be the product of a fusion of the sublime and the beautiful. The idyllic opening scene of Lopez's "Preface," in which he walks among the ground-nesting birds of the Ilingnorak Ridge, offers a perfect example of how the beautiful and the sublime

come together to enhance the idea of the social nature of this landscape. Here is Lopez's depiction of the scene:

On the evening I am thinking about – it was breezy there on Ilingnorak Ridge, and cold; but the late-night sun, small as a kite in the northern sky, poured forth an energy that burned against my cheekbones ... I went on a walk for the first time among the tundra birds. They all build their nests on the ground, so their vulnerability is extreme. I gazed down at a single horned lark no bigger than my fist. She stared back resolute as iron. As I approached, golden plovers abandoned their nests in hysterical ploys, artfully feigning a broken wing to distract me from the woven grass cups that couched their pale, darkly speckled eggs. Their eggs glowed with a soft, pure light, like the window light in a Vermeer painting. I marveled at this intense and concentrated beauty on the vast table of the plain. I walked on to find Lapland longspurs as still on their nests as stones, their dark eyes gleaming. At the nest of two snowy owls I stopped. These are more formidable animals than plovers. I stood motionless. The wild glare in their eyes receded. One owl settled back slowly over its three eggs, with an aura of primitive alertness. The other watched me, and immediately sought a bond with my eyes if I started to move.

I took to bowing on these evening walks. (*AD* xix-xx)

Lopez's reference to Dutch painter Johannes Vermeer (1632-1675) highlights the aesthetic beauty of the moment. The scene portrays in detail the small birds hatching on the ground, persistently and courageously caring for the life emerging in their eggs. The birds' eggs, the very essence of progeneration, are the focal point and the ultimate beauties of Lopez's tundra scene. "[S]mall, ... smooth, and polished" (Burke 97), they glow with a "soft, pure light," the beauty of which only great art can capture. Even though the vulnerability of these birds and their eggs is "extreme," the birds are "resolute," and each kind has its own way of dealing with the threat posed by the presence of the human intruder. The sociality of the scene is exemplified not only in the birds' loving care for their young, but also in the way individual animals, like the snowy owl, actively engages in a non-verbal form of communication with the human, seeking "a bond" with Lopez's eyes if he begins to move. By focusing, quite literally, on the material ground, Lopez's opening scene is able to acknowledge both the otherness and the sociality of these nesting birds.

The light in the scene brings associations to that Christian tradition of light that Lopez re-defines in his discussion on icebergs.

Until then, perhaps because the sun was shining in the very middle of the night, so out of tune with my own customary perception, I had never known how benign sunlight could be. How forgiving. How run through with compassion in a land that bore so eloquently the evidence of centuries of winter. (*AD* xx)

“[B]enign,” “forgiving,” and “run through with compassion,” the sunlight is symbolically associated with Lopez’s concept of *agape* – of sharing life with other life. However, like in the portrayal of the *aurora borealis*, the light in this scene possesses material as well as symbolic qualities. Symbolically, light performs through its very presence on the arctic tundra the life-giving and religiously charged functions of compassion and forgiveness. But it is the material qualities of light that allow Lopez to become part of what he observes. The way the light burns against his cheekbones (*AD* xix) and presses against his face (*AD* xx) highlights the manner in which Lopez, through his embodied partaking in its materiality, is included in the ‘sharing of life’ that takes place in this scene. Because of the way physical light engenders the life that is shared here (something which is signified in the way the eggs glow), there is no need for Lopez to resort to the mind’s lofty flight or poetic transcendence in order to achieve a sense of unity with the greater order of the world.

Lopez’s tundra walk on the Ilingnorak Ridge evokes notions of “sublime innocence, the innate beauty of undisturbed relationships” (*AD* xxii). Like in Burkean aesthetics, the beauty of the nesting birds seems to confirm the order of their environment. Thus it is not only the light that in this scene serves to bring the beautiful together with the sublime, but also the idea of a natural and harmonious order that the human may reach an understanding of by reflecting on what is immediately present and available through sense perception. The complete dimensions of this order, however, lie beyond human comprehension, and involve animals “all in the unfoldings of their obscure lives” (*AD* xix).

The obscurity of animals’ lives, and the impossibility of knowing their lifeworlds, despite our best efforts, is in *Arctic Dreams* a recurring source of sublimity. We find this sense of sublimity in the tundra scene, as we also did in Lopez’s reflections on how the narwhal – even after all our investigations into its evolutionary history, its physiology and forms of sociality – still remains beyond conception. Throughout the text, the full dimension of the animal – what an animal truly *is* – remains a mystery; a source of respect and awe for that which exists beyond the human. The repeated evocation of this mystery ends in the epilogue’s philosophical question: “What is an animal?” (*AD* 408). Lopez’s recognition of animal otherness results primarily from his direct encounters with animals in the wild, as reported in the text’s numerous personal anecdotes. Recourse to scientific information about these animals in many instances deepens this sense of mystery and brings to the fore new forms of relationship between the animal and the human. Feelings of awe and respect for the animal are further evoked both by reflection upon the various arctic animals’ success in

surviving and making a home for themselves in this harsh environment, and in recognition of the way animals drive evolution. Thus in *Arctic Dreams* the sublimity of animals is associated with a recognition of the radical heterogeneity of their lives in the Arctic; a heterogeneity which is beyond our comprehension both in terms of magnitude, quality, and creativity.

In the opening tundra scene, Lopez expresses these emotions by respectfully bowing to the ground-nesting birds. Later, in the epilogue at the very end of *Arctic Dreams*, his bow of respect is to the north. In describing the “undisturbed relationships” of the tundra in terms of “sublime innocence,” Lopez emphasizes the way his new form of arctic sublime departs from the Burkean sublime of terror, and moves towards more contemplatively engendered feelings of respect and awe in meetings with the social and material relationality of the natural world (*AD* xxii). The sublimity of this relationality is further associated with the ‘innocence’ of existing beyond, and independently of, the human.

Within this context, the land, in all its vastness, is less of a threat than an expression of vast possibilities for life. Although the bird’s eggs lie exposed on the ground, this ground is what supports life. The threat lies with the figure of the human, who may so easily – even inadvertently – tread upon the nests and thus destroy the very foundation for further life. In this manner, Lopez’s opening scene introduces his later reflections on the ability of modern human beings to extinguish other forms of life. By presenting the figure of the narrator, the very focalizer through whom we as readers ‘see’ the arctic landscape, in a position in which he personally becomes a threat, *Arctic Dreams* brings a sense of responsibility for this landscape and the animal lives it holds very close to the reader.

Individualism, technology, threat

To be on the ground, entangled in material and social relationship with environmental others, is a requirement for Lopez’s poetic vision of the Arctic, and for a more respectful relationship with the land. Where such ties do not exist, the view of the land becomes radically different. This is demonstrated in Lopez’s depictions of Prudhoe Bay, a landscape that – despite its beautiful light and serene display of gliding swans – is to Lopez “more austere than any I had ever seen in the Arctic” (*AD* 393). In this land of oil excavation, the “[m]uscular equipment sitting idle like slouched fists in oil-stained yards” bespeaks the oil companies’ technological violence against the land (*AD* 394). Although evident in Lopez’s use of imagery, this violence is often hidden on the actual sites of the oil companies’ installations, as is its human cause. As Lopez reports from Gathering Station #1: “The human presence is in the logic of the

machinery, the control of the unrefined oil, the wild liquid in the grid of pipes. There is nothing here for the oil but to follow instructions” (AD 395).

But it is not only the wild and biological force of the oil that is controlled and contained within this environment (AD 396). The people working the machinery are similarly contained within a technologically engendered and strictly controlled system (Lopez must pass several police checkpoints in entering the oil company’s premises, which are contained behind cyclone fencing and barbed wire). Most of them take little or no interest in the natural environment surrounding them, and what little knowledge they possess about the local flora and fauna come from company brochures or from “Plexiglas-covered panels that enumerate the local plants and animals” in the company’s pavilion (AD 395). The seemingly abandoned pavilion, situated outside the pump station fence and drifted over with snow, perfectly exemplifies how the ordering of the world according to modern science aims to “familiarize (‘naturalize’) new sites/sights” by drawing environmental others “out of the tangled threads of their life surroundings” and into its own “global unity and order” (Pratt 31). And the order presented at the pavilion outside Pump Station #1 is one in which “[e]verything – animals, oil, destiny – is made to seem to fit somewhat naturally together” (AD 395). The seemingly natural order of capitalist resource extraction (arrested in time behind protective Plexiglas) is signaled by the fact that on these panels “[p]eople are not mentioned” (AD 395). Nor are they physically present at this wind-blown site off the perimeter fence.

Living comfortably in well-conditioned artificial environments separated from the tundra by thick layers of insulated glass, the oil company workers’ only real relationship ties seem to be with the modern technological labor system that pays their bills. This system, in *Arctic Dreams* the embodiment of modernity and a continuation of previous forms of exploitation of the region, represents a well-functioning and economically successful order of its own. Yet it is an order detrimental to all relationship networks – natural as well as personal. This is expressed in the general worker’s attitude, which Lopez describes as “colonial” (AD 399). Unhappily trapped in “all male societies” that resemble “small state prison[s],” Lopez finds in the average workers of the more distant oil company installations the same suspicious and disrespectful attitude towards women, machinery and the land: all are talked of in terms of “seduction, domestication, domination, control” (AD 398).

Thus despite the seemingly well-functioning and naturalized order of this technological-economic system, it is one fundamentally detrimental to life because it values only the human-made monetary relationships on which the capitalist system is founded. In

order to illustrate the damaging effects on life of this one-sided validation of economic wealth (and the hubris of the human presumption that we may know, control and/or artificially reproduce the natural environment), Lopez offers us the anecdote of the three birch trees in the company building's lobby. Although these trees were cared for in a human-controlled environment, come fall they were unable to complete their natural functions due to the fact that the wind – that phenomenon of movement in the seemingly invisible air – was absent. “Fall came,” Lopez reports, only “when a man from building maintenance went in and shook the trees” (AD 396). Leaving the story thus, Lopez allows the un-uttered fact that while the building is still there, the birches are not, to resound a silent warning about the dangers we face in aiming to control and direct the premises of life, instead of allowing it to run its course in the midst of unknowable complexities.

Axel Heiberg land – transcendence and physicality in the Far North

It is the kind of development embodied in the oil company installations of Prudhoe Bay – mankind's attempt at exploitative control over the environment – that Lopez's re-defined notion of the sublime works to counteract. Indeed, Lopez ends his *Arctic Dreams* by his modern traveler's experience of a moment sublime. Looking down at northern Ellesmere Island from his seat in a northbound plane, Lopez finds the birds-eye view offered by the plane and the map in his lap to corroborate what he already knows of the land by experience: “from history books, from walking around in it, from talking to people long resident here, from eating food the land produced, from traveling over it with people who felt defined by it” (AD 403). In Lopez's final vision, then, authority lies with the land rather than with the map. This corroboration of Lopez's intimate and experiential knowledge of the land functions as an important framing for the seemingly more traditional sense of sublimity evoked as Axel Heiberg land comes into view. In gazing upon its distant, mountainous landscapes, Lopez finds himself “mesmerized” (AD 403).

I lost for long moments my sense of time and purpose as a human being. In the walls of Axel Heiberg I found what I had known of mountains as a child; that from them came a knowledge that was received, for which there were no words, only, vaguely, prayers. What I loved as a man, the love for parents and wife and children and friends, I felt suffused with in that moment, flushed in the face. The fierce testament of life in abeyance on the winter tundra, the sharp taste of *irok* on evening walks on Baffin Island, the haunting sound of oldsquaw in the ice, *ahaalik, ahaalik*. At the sudden whiteness of a snowbank on the brown earth at Mokka Fiord, I remembered vividly arctic hares, three feet tall and running on their hind legs, hundreds of them,

across Seward Peninsula. In the stillness of Axel Heiberg I felt for the first time the edges of an unentered landscape. (AD 404)

In this timeless moment, with unmistakable associations to former mountain sublimines, Lopez experiences a form of awareness or sharing of knowledge that lies beyond words; beyond the *logos*. In this elevated state of awareness, in which the boundaries of the self are softened, there is a heightened sense of interconnectivity with the natural world reminiscent of former Romantic poets' experiences of the contemplative (and transcendental) sublime. The clarity of the air, which makes the mountains of Axel Heiberg stand out in relief, at this moment of vision symbolizes the narrator's epiphanic "clarity of mind" (AD 404). At the same time, Lopez asserts that "[t]he beauty here is a beauty you feel in your flesh. You feel it physically, and that is why it is sometimes terrifying to approach. Other beauty takes only the heart, or the mind" (AD 404).

The Axel Heiberg passage highlights the network of personal and environmental relationships in which Lopez finds himself involved by complementing the memories of childhood and human loved ones with memories of animals in the landscape. The way Lopez's vision recognizes animal subjects and *their* expression of life to be part both of the landscape itself and the more extended network of relationships he imagines (for instance exemplified in the utterances of the oldsquaw) is the result of text's simultaneous fusion of the beautiful and the sublime *and* its refusal to leave the material realm in favor of the spiritual.

Lopez's Inuit-informed definition of hunting as that awareness of relationship patterns that spans the human, animal, and inanimate world offers a foundation that allows and explains this expanded sense of relationality. Together with the text's catalogic presentation of natural facts, the hunter's mode of awareness is what keeps Lopez's vision of relationality empirically founded, even at the moment the mind realizes the radical interconnectivity of the world. The depiction of the landscape at the Mokka Fiord reveals this interconnectivity to include that creative dichotomy between darkness and light that Lopez through his representation of the black-and-white landscapes of the Arctic insists we recognize as parts of the same complex phenomenon.

Yet at the same time as Lopez evokes this beautiful, extended, socially and physically anchored form of sublimity, it seems at this critical point in the text to be associated with the idea of an "unentered landscape" (404), and an absolute or "Far North" (403). Thus despite the text's scrupulous catalogues of facts, *Arctic Dreams* ends this passage by enacting a

symbolic movement towards an idealized idea of North as a place of purity beyond civilization. Peter Davidson has pointed out that this idea has a long Western tradition (21-25). In *Arctic Dreams*, however, the movement seems to be in conflict with the text's repeated emphasis on the Arctic as lived and living space; as a place of coeval cultural or animal others. The topos of the Arctic as lived space is repeated in the very scene in which Lopez views Axel Heiberg land from the plane. From this distanced view, Lopez finds "in adumbrations of the land, in suggestions of the landscape and all that it contained, the ways human life sorts through itself and survives" (AD 404). "To look at the land," he continues, is "never to forget the people it contain[s]" (AD 404). The 'unentered landscape' of Axel Heiberg is thus not a place Lopez imagines to be beyond civilization (for as discussed in Chapter Five the Arctic itself is to Lopez a civilization), but instead beyond any permanent influence of modernity. It is a place in which the wild is still present within that which modern societies have domesticated: the land, its animals, and human relationships with both.

This pervasive wildness is signaled in Lopez's depiction of the dogs that come to meet him as he disembarks the plane on Ellesmere Island. Not the usual pets or modern human companion species, these are animals "lumbering like wolves, a movement that suggested they could drop buffalo" (AD 406). For readers familiar with Lopez's former work of nonfiction, the image of the wolf kindles associations with the wild social animal individual presented in *Of Wolves of Men*: an animal this book helped establish as an iconic animal of the North American continent, just like the buffalo. As Lopez reaches out to pat one of the wolf-like dogs on the head, his movement is tentative and expressive of a slight sense of unease in the meeting with this seemingly partly wild animal (AD 404). From this we can conclude that despite his valorization of the wild, and of the indigenous hunter's perception of the environment, Lopez remains a modern Westerner to whom direct contact with the wild animal is still unfamiliar and potentially dangerous.

Meta incognita

The juxtaposition of the ideational and the concrete Arctic in the scene in which Lopez enters the American Far North brings to light the larger ethical project of *Arctic Dreams*, which is to alter the way we think about the natural environment in general, and the Arctic in particular. And indeed, when human life in the Arctic is considered, it becomes evident that while the Inuit have persisted here through millennia, Westerners entering on expeditions of exploration or natural resource extraction tended to perish rather quickly. It is, in other words, time for

modern Westerners to recognize our historical failures in encounters with the Arctic, and to draw from these failures lessons that might enhance our chances for long-term and reciprocal relationships with the land. Among these lessons two are central in Lopez's text. One is the intricate and vulnerable complexity of the relational networks of becoming on which life depends. The other is that in order for a relationship with the land to be lasting, reciprocity must exist on the level of understanding – in that which aids our choice of concepts and metaphors in meeting with the land – just as it exists on the level of the material (AD 404). And it is for the sake of this reciprocity of understanding that Lopez, throughout *Arctic Dreams*, insists on staying with the particular, even in reflections upon the historical use of cultural symbols; insists on turning the land into template for thought. The direction of influence from land to mind is repeated in Lopez's final wish that "the order of my life ... be arranged in the same way I find the light, the slight movement of the wind, the voice of a bird, the heading of a seed pod I see before me. This impeccable and indisputable integrity I want in myself" (AD 405).

Placed at the end of the chapter entitled "A Northern Passage," Lopez's allusions to an ideal or 'unentered' Arctic end in physical contact with the semi-wild animal of the wolf-like dog. In this manner *Arctic Dreams* can be thought to enact what Davidson has described as "two archetypic northern journeys": one "from civilization to wild and untamed nature," the other a "journey into one's own interiority, ... self-understanding, [and] clarification and focusing of the spirit" (Davidson 65).⁸² In *Arctic Dreams* self-understanding emerges from direct contact with arctic landscapes and cultural others, and engenders reflections on the need for change in modern Western associations with these landscapes. By keeping the land itself always the focal point of his contemplations, Lopez insists that if we pay closer attention to the land, and have "tolerance in our lives for the worth of different sorts of perception, of which the contrasting *Umwelten* of the animals ... are a reminder" (AD 313), new and more tolerant ways of relating to the land will become possible.

The symbolic conceptualization with which Lopez chooses to end his representation of the Arctic is hence not the "*Ultima Thule*, the most distant place on earth, ... [and] metaphor and reference point for the end of the knowable world" (Davidson 22), but the *Meta*

⁸² As evident in Scheese's definition of nature writing (6), the same kind of 'archetypic' parallel journeys into the (external) wild and into (internal) self-understanding are enacted by nature writers visiting landscapes further south on the North American continent.

Incognita. Unlike the (in Western history) geographically confused, physically transferrable and ultimately self-referring *Ultima Thule*, *Meta Incognita* is simultaneously a symbolic and a concrete place; a “peninsula at the southern end of Baffin Island ... named by Queen Elizabeth” (AD 405). According to Loomis, the arctic *Meta Incognita* denoted a place of unknown commercial value to the Elizabethans who discovered it (97). In Lopez’s etymological explanation *Meta Incognita* means “the ‘Unknown Edge’ or the ‘Mysterious Land’” (AD 405). However, Lopez also offers us his own re-interpretation of the term. For “[i]t is possible,” he speculates, “that Elizabeth had another meaning in mind,” and that the *meta* she referred to was one of the towers of the Colosseum race course around which the chariots in classical Roman races turned before coming back (AD 406). London would then be “the *meta cognita*, the known entity, and the land Frobisher found the unknown entity, the *meta incognita*” (AD 406). Thus placing the *meta cognita* and the *meta incognita* on different continents, Lopez proceeds with a symbolic interpretation of North America as that place of wildness, that “turn at the far end of the course,” around which not only English explorers like Frobisher, but indeed European culture must “make a turn of unknown meaning before coming home” (AD 406). And in a text that in a variety of ways laments the ways in which modern society has distanced itself from the naturally given, what this “coming home” signifies is precisely the recognition of human entanglement in a vast and inherently social network of relationships that include the animal and the material.

With the recognition of this entanglement comes the recognition of the inherent worth of – and our direct as well as our indirect dependency on – the other constituents of the relational network. To Lopez, this recognition provides the foundation for that second and “more radical Enlightenment” one can read *Arctic Dreams* as a progression towards; one in which the dignity that the eighteenth century Enlightenment project ascribed to the human is extended to other living beings (AD 405). That *Arctic Dreams* partakes in Lopez’s “literature of hope” (“Voice” 14) is evidenced in the author’s request for

[a] more radical Enlightenment ... in which dignity is understood as an innate quality, not as something tended by someone outside. And that common dignity must include the land and its plants and creatures. Otherwise it is only an invention, and not, as it should be, a perception about the nature of living matter. (AD 405)

The very wording of Lopez’s request reveals the manner in which *Arctic Dreams* and Lopez’s ideas of “a more radical Enlightenment” point towards later theories of new (or vital) materialism that emphasize “how matter matters” (Barad 122). This turn to an unknown, and

what might in retrospect be termed *posthuman*, form of Enlightenment is at the heart of the explorative and symbolic ‘northern passage’ that *Arctic Dreams* represents. Written in 1986, a point in time in which the Arctic was on the empirical level mapped, and hence in Loomis’ sense no longer sublime (112), Lopez’s text opens a territory of relationality that was then (and arguably to most people still is) uncharted. In this sense, what *Arctic Dreams* presents us with is in itself a form of epistemological *meta incognita*; an unknown land of unknown value. The turn in the text to the unknown is profound, and involves precisely what in recent years has been explored through the work of a multitude of theorists within the new scholarly fields of animal studies and new materialism(s). Lopez’s way of associating sublimity with what remains beyond the possibilities of Western scientific and cultural *knowledge systems* represents a late twentieth-century update of a nineteenth-century arctic sublime conditioned upon the status of the Arctic as a *geographical* unknown. Theoretical developments of the past decades may thus be read as beginning explorations into the new forms of unknowns about the natural world that *Arctic Dreams* at the time of its publication (1986) helped expose.

In his re-interpretation of the *meta incognita*, Lopez designates North America, and “the wisdom” here preserved “that lies in the richness and sanctity of a wild landscape,” that *meta* around which European culture must make a turn towards a better and more ecologically sound future (*AD* 406). According to this vision, North America is still be able to offer the kind of Thoreauvian wildness from which lessons of the preservation of the natural world – and of humanity – may be learned. In this manner *Arctic Dreams* places itself in a long artistic tradition in which the wildness of American landscape is seen as a defining quality of American culture.⁸³ Yet at the same time as *Arctic Dreams* affirms its ties this tradition, the text simultaneously distances itself from this tradition by refusing to present the arctic wilderness as emptiness, and its indigenous peoples as ‘primitive isolates’ (*AD* 410). In this manner Lopez’s text foreshadows Cronon’s later influential critique of the wilderness topos. His refusal works together with the text’s re-definition of the sublime to counter an American tradition in which the sublimity of the wilderness was conditioned on the negation, not only of human cultural Others, but of the Otherness of nature in all its forms.

⁸³ Barbara Novak shows how this line of thinking, which is prevalent in American nature writing, have been influential also in American landscape painting since the time that Thomas Cole, in his 1835 “Essay on American Scenery,” found wilderness to be “its most distinctive feature” (48).

A new arctic sublime

In order to see how Lopez's reworking of the sublime serves to promote the kind of 'radical Enlightenment' he prescribes, let us turn to the "Epilogue" and some conclusive remarks on how Lopez's sublime differs from the former Romantic sublime. After his partly symbolic reading of Axel Heiberg land in the chapter entitled "A Northern Passage," Lopez in his epilogue brings us back again to the concrete details of one more arctic landscape: that of the sea ice beyond the northwest cape of the Saint Lawrence Island in the Bering Sea. This icy landscape is yet another border zone, but one whose evolutionary potential lies in the way it challenges human categories. Between the North American and Asian continents, Lopez here finds himself off an American island in Russian waters (that take solid form) at a time in history where the border between these two nations was absolute, and trespassing a crime in itself. The fact that he and the Yup'ik hunters he travels with have crossed the International Date Line also means that they are, per definition, "in 'tomorrow'" (AD 407). But his companions care about none of this. What matters to them are the concrete material events associated with the hunt: the "blood [that] soaks the snow," the accumulating "piles of meat and slabs of fat and walrus skin" (AD 408). In this manner the final hunting scene reveals (once more) the arbitrariness and sometimes folly of the categories through which modern humans order their world. And when Lopez within this setting interprets the blood in the snow as "a sign of life going on, of other life going on" (AD 409), we may read this as an affirmation of the inter-dependency of all life, as well as a hopeful confirmation of the way in which life, in its wildness, proceeds according to its own internal principles *despite* our categorizations.

In order for us to truly recognize this wildness of life, and the way it relates to our own lives, it is necessary, as Evernden points out, to attempt to rid ourselves of the mental categories by which we habitually perceive the world. And because "[i]t is the *unfamiliar* that shakes that complacency and makes us doubt the adequacy of conventional vocabularies" (Evernden *Social* 132), the Arctic represents an environment particularly suitable to the task. Time and again Lopez's narrative reveals how arctic phenomena are so "out of tune with [his] own customary perception" that they enforce a reconsideration of concepts and categories he takes for granted (AD xx). In this manner the concrete particulars of the Arctic are vital both to Lopez's poetic vision and to the aesthetics of the text. The disruptive effect of the natural environment is enhanced by Lopez's knowledge of Inuit ontologies, which (as we saw in chapters Four and Five) generates insight about the cultural relativity of even the most

fundamental of human categorizations of the world. And so Lopez's final bow of respect to the north, like the very setting in which it occurs, partakes in the narrator's attempt to 'empty his head of categories':

I bowed. I bowed to what knows no deliberating legislature or parliament; no religion, no competing theories of economics, an expression of allegiance with the mystery of life.

... I held my bow until my back ached, and my mind was emptied of its categories and designs, its plans and speculations. (*AD* 414)

This gesture of respect towards the natural world involves the simultaneous 'emptying of the mind' *and* an emerging awareness of the body (made present by the feeling of physical pain the bow involves). The framing of the gesture within a hunting scene highlights that a 'material sensibility' is a necessary precondition for the experience of direct and unmediated encounter with the environment that Lopez seeks, and through which the environment – in all its otherness – is allowed to define *itself*.⁸⁴ This radical openness towards the natural world is implicit in Lopez's symbolic Far North. Thus his bow of respect to the North is simultaneously also a bow of hope for the ways in which Western culture may still "sort[] through itself and survive[]" in the natural world (*AD* 404), despite its history of environmental exploitation and destruction.

Lopez's final bow is toward the Bering Strait, "that great strait filled with life" (*AD* 414). As reported in the chapter "Lancaster Sound: *Monodon monoceros*," the Bearing Sea is a region in which the number of animals takes on sublime proportions:

Bering Sea itself is probably the richest of all the northern seas, as rich as Chesapeake Bay or the Grand Banks at the time of their discovery. Its bounty of crabs, pollock, cod, sole, herring, clams, and salmon is set down in wild numbers, the rambling digits of guesswork. The numbers of birds and marine mammals feeding here, to a person familiar with anything but the Serengeti or life at the Antarctic convergence, are magical. At the height of migration in the spring, the testament of life in Bering Sea is absolutely stilling in its dimensions. (*AD* 125-26)

Armed with updated knowledge about this vast ecosystem, what Lopez through this and other passages brings to his Arctic is precisely what the nineteenth-century arctic sublime hid: the

⁸⁴ In this particular scene, in which human-imposed categories reveal their arbitrariness and impotence, this is exemplified in the depiction of the mountain Sevuokuk as an "eminence [that] defines the water and the sky to the east as far as we can look" (*AD* 407).

presence of life in the Arctic. Loomis points to the interesting fact that although “explorers often pointed out [that] parts of the Arctic nourish much fauna, its seas are rich with life, and Eskimos inhabit its southern portions, ... these facts were conveniently ignored in favor of the image of lifelessness” (104). Although one may only speculate about the reasons for this willful ignorance, it would, of course, be exceedingly difficult to imagine the (Western male) individual’s encounter with a cold, uncaring and at times antagonistic environment as sublime, if this environment was at the same time recognized to be the home of humans and animals who felt quite comfortable in it.

Another possible reason for this ‘emptying’ of the Arctic could lie in Kant’s requirement that the sublime must evoke the “*absolutely*” and “*beyond all comparison great,*” and not concern itself with the details of the world of sense (94). As to the ocean, Kant argues, we should *not* “regard it as we, with our minds stored with knowledge on a variety of matters ... are wont to represent it in *thought*, as let us say, a spacious realm of aquatic creatures ... for in this way we get nothing but teleological judgements” (Kant 122). Because the sublime did not belong to the sphere of the understanding (which makes teleological judgments) but to transcendental and intuitive reason, the ocean was to Kant sublime only to the extent that it was regarded according to its “impression on the eye,” either as a an entity “threatening to overwhelm and engulf everything” or as one “bounded only by the heavens” (122). From this we may conclude that what makes the Bering Sea sublime in *Arctic Dreams*, despite Lopez’s thoughtful reflections on its myriads of creatures, is the seeming boundlessness of its aquatic forms of life. In the continuation of the text’s repeated insistence on the relationality of the world, the animal life of the Bering Sea constitutes a mathematical sublime that is, as Lopez puts it, “absolutely stilling in its dimensions” (*AD* 126).

In this manner Lopez’s factual descriptions of the Arctic makes visible and brings into proximity what has traditionally been kept out of the discourse on the Arctic. The Arctic of *Arctic Dreams* is not lifeless, not kept at a distance. To the contrary, sublimity is in this text associated with life – and with relationships born from, and consolidated through, experience.

Loomis ends his discussion on the arctic sublime by commenting on how the explorations that brought about this regional form of sublimity, also led to its demise. “By the end of the [nineteenth] century,” he writes, “although the North Pole had not yet been reached, the Arctic had been thoroughly explored, studied, and mapped, and its geographical features had been domesticated with names” (Loomis 112). With this increasing body of knowledge, he continues, “[t]he mystery was gone in fact if not in fiction. The Sublime

cannot be mapped” (Loomis 112). Read with this in mind, the sublime should be an impossible aesthetics for a text like *Arctic Dreams*, written a century later. And indeed, in Lopez’s depiction the Arctic is neither geographically limitless nor beyond knowledge, but a region of known and concrete places a modern traveler may experience without imminent threat to his or her life. As evidenced in the text’s many catalogues of natural facts (discussed in Chapter Seven), the natural forces of this environment are no longer predominantly vague and threatening, but concrete and to some extent knowable, even if not predictable.

Arctic Dreams’ new or re-defined sublime thus has its basis in other forms of mystery than the geographical. We have already associated these mysteries with the recognition of otherness – in its animate as well as inanimate forms. But mystery is also inherent in the very production of knowledge through which we now know the Arctic – and particularly in the limits to this knowledge. These mysteries are tacitly but ubiquitously present in the text through Lopez’s evocation of the non-perceptible forms of interconnectivity – of those ‘patterns of relationship’ – he finds within the arctic natural environment. Similarly (as evidenced in Chapter Six), Lopez’s references to quantum physics remind us of the way the interconnectivity of all matter remains beyond modern science’s most advanced forms of knowledge. Thus the text’s continuous oscillation between microscopic and macroscopic imagery can also be thought to engender a sense of sublimity through the way it reminds us of the mystery of those non-local relationships between the whole and the parts that govern the way cosmic and local forces interact in the continuous act of creativity that *is* the world. Accordingly, one may argue that the new or re-defined aesthetics of the sublime in *Arctic Dreams* emerges in part as a *result* of the text’s positivistic use of science to explain arctic phenomena. Whereas the quest in science for certainty has unveiled much of the mystery of the Arctic as a geographical region, other and more intricate mysteries have presented themselves through this very quest. These are mysteries that by nature lie beyond the reach of science, even in its most complex and developed forms. Lopez’s references to animal lifeworlds and Uexküll’s *Umweltlehre* (treated in chapters Three through Five) remind us of the way in which these boundaries to knowledge also manifest themselves in our considerations of animal others. For despite all our mappings and recordings, despite the continued efforts of the most conscientious of field biologists, accurate knowledge of the lifeworlds of other living non-human subjects not only escapes us, but lies beyond the very boundaries of what humans may come to know. In this sense, the very representation *in*

thought of aquatic or terrestrial ‘creatures’ evokes in *Arctic Dreams* a different or supplementary form of the sublime.

In place of the geographical vastness and tremendous inorganic forces of the traditional aesthetics of the sublime, Lopez’s arctic sublime presents us with the vastness of life and the immense forces of evolution. This vastness of life is, however, not limitless. Whereas the text, through recourse to Inuit ontology and quantum physics, presents the *relationality* of life as limitless, arctic life itself, in all its myriad expressions, persists on the very brink of existence. In addition to the strain of long, unabated periods of cold and darkness, life in the Arctic also has to deal with abrupt and sudden changes in environmental parameters vital to existence. Thus in a manner resembling landscapes of the traditional natural sublime, Lopez’s Arctic contains landscapes of oxymoronic qualities, including “horror within magnificence, absurdity within intelligibility, suffering within joy” (*AD* 411).⁸⁵

The dark aspects of the landscapes of the Arctic are in Lopez’s text further darkened by the added threat of modern human activities. This threat, which is a continuous underlying presence in the text, is associated with the modern “ability to alter the land” (*AD* 411). It is brought to the fore as Lopez in his epilogue repeats his concern that “[t]he long pattern of purely biological evolution ... strongly suggests that a profound collision of human will with immutable aspects of the natural order is inevitable” (*AD* 411). Lopez recognizes the severity of this slowly evolving and already partially effectuated threat to Inuit cultures and their traditional ways of interacting with the land. In informing us of the way he thinks of the Inuit as “*hibakusha* – the Japanese word for ‘explosion-affected people,’ those who continue to suffer the effects of Hiroshima and Nagasaki,” he makes a point of the fact that this is a human-induced technological threat with tremendous power to extinguish life (*AD* 410).⁸⁶ This threat, however, is *not* aestheticized in terms of what Jonathan Bordo characterizes as a postmodern (human-made and technological) sublime. Although the text’s environmental concern involves a critique of modern technocratic society, its concept of the sublime is

⁸⁵ Lopez’s translation of Albert Schweitzer. In Pedrag Cicovacki’s edition, the quotation reads: “In the world as it is, we see horror mingled with magnificence, absurdity with logic, and suffering with joy” (Cicovacki 174).

⁸⁶ The association with the *hibakusha* engenders a sense of already effectuated catastrophe that seems contrary to the text’s generally more hopeful attitude with regards to humanity’s ability to learn from past mistakes and to develop more respectful and sustainable ways of interacting with the natural environment.

primarily ecocentric (or ‘biocentric’) and ecological.⁸⁷ It is ecological not only in evoking a sense of the vast networks of relationship that constitute the land, but also in the sense that it reminds us of the lesson that “[t]here will always be limits to our knowledge, and [that] nature will always be, finally, impenetrable” (Hitt 620). And it does so precisely by presenting us with the ecological sublime’s characteristic sense not of fear and trembling but of *wonder* in the encounter with nature (Hitt 620).

Aiming for a new vision of the Arctic and its landscapes, *Arctic Dreams* employs the aesthetics of the sublime, but in a way that brings this aesthetics back to the phenomenal. Arguably, in what concerns the Arctic, more extensive knowledge of natural and cultural ‘particulars’ is still necessary in order to counter long-standing and deeply rooted misconceptions. This explains why Lopez’s ‘predominant passion’ is in this text one of non-interference; of letting facts speak for themselves to reveal both the otherness and the simultaneous sameness of environmental others. Lopez in this manner avoids the Romantics’ tendency to “charge[] biological occurrences with human significance” (Wilson 179-80). As evident in his discussion of cathedrals, the development of Western society over the past centuries represents to Lopez a crisis of the human imagination. This crisis is associated with the modern, scientific world. In this manner Lopez reiterates the Romantic trope that rationality and science stifle the imagination. With *Arctic Dreams*, however, Lopez simultaneously presents the Thoreauvian argument that science *need not* do this. If other, more humanist, lines of inquiry are allowed to complement it, science may generate new sources of wonder and awe – and of the sublime.

In this sense *Arctic Dreams* responds to a situation in which science has become fundamentally important not only in providing the knowledge by which we come to know the world, but also in initiating changes in our conceptions of it. The text’s response is precisely the one we in Chapter One saw Wordsworth prescribe: Lopez is a poet “follow[ing] the steps

⁸⁷ Lee Rozelle has identified a biocentric sublime in Barry Lopez’s *Field Notes*, and defined this sublime as that point at which “the all-encompassing vastness of an ecological organicism elevates the mind to the Kantian supersensible” (131). At this point, Rozelle argues, “the mind of the human subject finds itself fixed upon, integrated with and submerged into the ecosystem itself” (131). The reworked sublime of *Arctic Dreams* is indeed ecocentric, but seems to differ from Rozelle’s biocentric sublime in that this more documentary text never truly leaves the material reality for the ‘Kantian supersensible.’ As it consistently retains its focus not only on arctic animals but also on the material reality of the arctic landscapes it presents, *Arctic Dreams* is arguably also less biocentric than it is ecocentric.

of the Man of Science,” and finding in “[t]he remotest discoveries of the Chemist, the Botanist,” or in Lopez’s case the biologist and physicist, “proper objects of the Poet’s art” (Wordsworth "Preface" 260). Traveling with such ‘Men of Science’ in the Arctic, Lopez is quite literally at their side, “carrying sensation into the midst of the objects of the Science itself” (Wordsworth "Preface" 260). These sensations are not part of the scientific facts themselves, but responses to the way these facts influence us, particularly as the poet integrates them into a larger textual contact zone in which the meeting of different forms of knowledge generates new perceptions of the material world. Whereas the *function* of Lopez the poet in *Arctic Dreams* thus resembles the function of the Romantic poet, I would argue that what this poet presents us with is a postmodern and ecological vision of the Arctic that throughout remains true to the physicality of its landscapes and animals in a manner that Romantic poetry in general did not.

Arctic Dreams was written before climate change made its ubiquitous and game-changing impact on modern Western conceptions of the natural world. Although it therefore does not deal with issues related to climate change, I would argue that its way of re-thinking our relationship with the natural environment is still useful in the present day. As the Arctic itself melts and changes, the material changes to this region are generating incomprehensible but radical and potentially life-threatening changes to natural environments worldwide, as well as to planetary biogeochemical systems. Even technocratic modern science has no ultimate overview of the intricate web of relationships these systems constitute, and no reliable means of predicting how they are about to change. The Arctic, which like the Antarctic plays a key role in stabilizing these planetary systems, in this sense represents the failure of the modern scientific enterprise to control and mold nature for the comfort and benefit of humankind.

For this reason, the Arctic might still be thought of in Loomis’s terms as a region “somehow vaster, more mysterious, and more terrible” than other regions in its imperceptible yet ubiquitous power (Loomis 96). Climate change ultimately confirms that nature’s power over human lives remains unchanging and inviolable, even at the very moment when the Arctic itself is proving to be malleable and vulnerable. The idea that the human mind might transcend the limitations of the physical world is severely challenged by the early effects of climate change, which leave little doubt that in practice our lives do indeed exist within these limitations.

Ecologically informed, the new natural sublime outlined in *Arctic Dreams* combines aesthetic reflection with an insistence on material reality, and recognizes the simultaneous power and vulnerability of the Arctic. Similar to the natural sublime identified by Spufford in nineteenth-century exploration narratives, this more contemporary arctic sublime invokes a sense of identification with the natural environment, but one of a different and perhaps more complex character. Once the biological life and the life-generating natural forces of the Arctic are recognized, the region becomes simultaneously life enhancing and life threatening. Lopez's arctic sublime thus causes different emotional and rational responses from its predecessors. Because the present physical and cultural climate recognizes that the cause of the enhanced and life-threatening power of the Arctic is ultimately to be found in the imperceptible and unintended forces set in motion by human exploitation of the natural world, when modern Westerners now identify with the sublime Arctic, our sense of its vulnerability is at the same time the sense of our own vulnerability. In this situation it seems exceedingly difficult to identify what kind of human 'higher principles' would enable us to morally 'rise above' this threat of our own making. Climate change thus arguably denies us recourse to the third stage of the Kantian dynamical sublime, while perhaps engendering a different moral sense of terror.

The new and daunting threats associated with the melting Arctic might have been initiated by us, but they represent the power, not of the human, but of the tremendous forces of nature over and against the human. Retaining some version of the sublime in contemporary portrayals of the Arctic may act as an efficient reminder of Western culture's long-time recognition of this power.

Conclusion

Towards the end of his canonical work of nature writing, *Arctic Dreams*, Barry Lopez closes his reflections upon the history of exploration in the North American Arctic by posing the question: “what does the nature of the heroic become, once the landscape is threatened?” (*AD* 390). With the threat of climate change, Lopez’s question is as relevant today as it was at the time *Arctic Dreams* was published. It reveals at one and the same time the text’s profound environmental concern for these northern regions, and its questioning of the narratives of an earlier arctic literary tradition in which heroism was associated with romantic ideas about the courageous struggles of the individual against the forces of the natural environment.

My dissertation has from a range of perspectives analyzed the nature and effect of the challenge *Arctic Dreams* poses to Western representations of the Arctic in general and to arctic exploration literature in particular, and not least to the vision of the natural world implicit in both. As part of this examination I have addressed two frames of reference that the text takes very seriously, but which the literary scholarship on this book seems to have overlooked: its relationship to the tradition of arctic exploration literature, and its relationship to the materiality of the arctic environment.

Arctic Dreams can be read as part of a search for a “new natural philosophy” in which Lopez in his early authorship engaged: a philosophy involving a “wider-than-Western, wider-than-purely-scientific, more-than-utilitarian” perspective on animals in particular and on the natural world in general (Lopez “Renegotiating” 387). Both in focus and ambition Lopez’s search resembles the quest of literary Romantics for a new and less alienating relationship with nature. It is, however, the postmodern nature of *Arctic Dreams*, its character of a “multi-dimensional space in which a variety of writings” and perceptual frameworks “blend and clash,” that allows this new natural philosophy to come to expression in Lopez’s text (Barthes 99). In order to do full justice to the complexity of *Arctic Dreams*, I have looked into the nature of some of the most conspicuous of the perceptual frameworks Lopez in this text introduces, and into the effects of their interplay.

Arctic Dreams may be argued to deviate from prototypical examples of nature writing. The overall project of Lopez’s book seems to involve the bringing together of scientific and aesthetic forms of representation in order to investigate the kind of insights these different forms allow and the kind of restrictions they impose on their subject matter. In this sense *Arctic Dreams* is an experiment in the potential inherent in the genre of nature writing to

bring into proximity and dialogue different discourses and forms of representation. Lopez's narrative draws on a range of texts from different genres – including historical exploration narratives, autobiographical travel reports, anthropological texts, old Western and Inuit myths, and more recent scientific reports and theories – each of which represents its own kind of framing of the world, and partakes in larger, culturally determined, perceptual frameworks. With this multiplicity of sources comes a multiplicity of perspectives on the same landscapes, several of which are not present in Western canonical texts on the Arctic. As my analysis suggests, these involve 'voices from the margins' that in a typically postmodern fashion challenge established cultural representations of the region. The heterogeneous pluralism of *Arctic Dreams* reveals issues of representation to be part of the text's concern. It is also what allows the text to offer a critique of the structures and principles of Western anthropocentrism, through which it moves towards more posthuman and new materialist perceptions of the natural world.

The epistemological critique engendered through the multi-perspectivism of *Arctic Dreams* becomes more evident when we read it in relation to earlier texts of arctic exploration, in which scientific (and sometimes aesthetic) framings of arctic landscapes and animals generally take quite different forms and serve quite different purposes than they do in Lopez's text. Nineteenth-century arctic exploration literature may be considered a regional variant of that more southern literature of exploration from which American nature writing developed. *Arctic Dreams* exposes its lineage to nineteenth-century arctic exploration narratives through a series of references and structural and thematic resemblances to such texts. Also *Arctic Dreams*' sustained attention to, and scientific description of, concrete arctic material and ecological phenomena (whether these be the first-hand experiences of the narrator or second-hand reports by explorers or whalers a century earlier) signal the influence of such former exploration narratives.

Like arctic exploration narratives, works of nature writing are hybrid texts in which scientific and literary forms of representation meet. Unlike exploration narratives, which are accountable primarily to the physical reality of the regions visited, nature writing operates on a principle of dual accountability and must endeavor to offer accurate representations of the natural environment *and* philosophical reflections on human relationships with the natural world. Containing elements of genres like natural history, travel writing and spiritual autobiography, nature writing combines the external journey of the exploration narrative with

an inner journey in the direction of a more developed awareness towards the lands explored and a more conscious, less alienated, and *better* relationship with the natural world in general.

The reflective essay form of *Arctic Dreams* follows only loosely the external itinerary of the travel narrative, and resembles more closely the *odyssey* form of arctic exploration narratives identified by T. D. MacLulich. To the extent that Lopez's text of exploration contains the kind of *quest* motif we find in early and mid-nineteenth-century arctic exploration narratives, this involves a more philosophical search for, and establishment of, new perceptions of the Arctic and its animals for the text's Western audience. As an example of late twentieth-century nature writing, *Arctic Dreams* is more profoundly hybrid than the former arctic chronicles to which it refers. It is hybrid not only in combining scientific and poetic reflections and modes of representation, but also in combining elements from a series of genres that themselves possess hybrid qualities.

I have chosen to interpret the hybridity of *Arctic Dreams* in terms of the concept of the *contact zone*. This corresponds well with the text's central metaphor of the ecotone, and allows me to interpret the certain 'messiness' that results from its combination of several cultural and historical (human and nonhuman) points of view on the Arctic. It also highlights the fact that in Lopez's narrative, the Arctic is no longer a frontier of the geographically and scientifically known world, but a region in which human and animal cultures have a long history of coexistence. With *Arctic Dreams*, Lopez makes the implicit argument that modern scientific information about this region should be brought into dialogue with the endemic forms of knowledge these histories have produced. Precisely in such local, long-term, non-modern forms of knowledge lies what Lopez considers to be the real value of the Arctic: the new insights and new perceptions through which our modern Western culture can amend its distanced and instrumental relationship with the natural world.

Thus Inuit cultures are in *Arctic Dreams* valorized for their expertise on arctic animals and for the alternatives they offer to Western Cartesian and dualistic conceptions of the natural world. Continuing the critique that *Of Wolves and Men* directed at the representation of animals of mechanistic science, *Arctic Dreams* turns neither to traditional science nor to the Romantic imagination in its depictions of arctic animals. What Lopez's animal representations instead rely on are the less reductive and social conceptions of animals of Inuit ontology and of new scientific disciplines such as field biology and *Umweltlehre*.

In *Arctic Dreams* Lopez argues that the Inuit hunter's methodology for studying animals involves the detection of animal *Umwelten*. His text consequently combines

descriptions of arctic animals from Inuit hunter cultures with descriptions from field biology and *Umweltlehre*. Applying Tim Ingold's recent theorizations on northern hunters' perception of the environment, I have shown how Lopez, in representing his personal experiences of arctic landscapes and animals, assumes the perspective of the Inuit hunter. Unlike other and more scientific perceptions of the environment presented in the text, the perspective of the Inuit hunter represents a human *dwelling perspective* in which a socio-ecological understanding of the natural environment can emerge. Hunting becomes in *Arctic Dreams* a way not merely of reading the landscape for its zoosemiotic signs, but an activity through which Lopez can engage in an embodied and extended (zoosemiotic) dialogue with the land and its animals. As in Inuit ontology, this dialogue involves the recognition that animal subjects have volitions and intentions of their own and exist on the same ontological level as the human. Unlike the autonomous (human) subjects of the Cartesian philosophical tradition, the subjects of Lopez's Arctic are relational entities constituted through their positions and ways of connecting with other subjects within the vast relational field that is *the land*. In *Arctic Dreams*, these relationships connect living beings to living and non-living parts of their environment, and constitute the *patterns* of the landscape that Lopez can detect as he assumes the awareness of the indigenous hunter.

The evocation of the hunter's vision of the land is part of what I have identified as the tacit inscription in *Arctic Dreams* of Inuit-inspired perceptions of landscape. When these are coupled with insights from Uexküll's *Umweltlehre*, Lopez is able to translate the zoosemiotic signs of arctic landscapes into animal points of view on the land. These animal *Umwelten* present radically other perspectives *on* the natural environment *from within* this environment, and might in my view be thought to represent current Harawayan contextualized or *situated* forms of non-human knowledge of the land.

Also the scientific perspective of quantum physics contributes to Lopez's project of overcoming a mechanistic conception of animals. Quantum physics confirms the complete interconnectedness of the material world, the context-dependence of all natural phenomena, and denies any clear ontological distinction between animate and inanimate parts of the world. It also affirms the impossibility of complete knowledge and pure objective observation of natural phenomena. All of these are insights that suit perfectly Lopez's ecological and new materialist vision of the Arctic, and which quantum physics seems to share with Inuit perceptions of the natural world. In this sense the evolution of Western science appears in *Arctic Dreams* to have proceeded in the direction of indigenous epistemology.

Together with relativity theory, thermodynamics, and theories of evolution, quantum physics partakes in a new postmodern paradigm in the sciences that introduces temporality and the possibility of self-organization into the scientific framework. In *Arctic Dreams* the idea of self-organizing higher-order unities comes to expression in the depiction of coherent multi-individual entities like muskox herds and snow goose flocks, and ultimately in Lopez's vision of the land as an animal. The text's emphasis on the way individual animals continually experiment with new ways of responding to their circumstances further underscores how evolution is driven by hosts of creatures in playful interactions with each other and with their environment. These creative – and in *Arctic Dreams* communicational – energies of the natural environment are beyond human comprehension as well as beyond human control.

In comparing animals to sub-atomic particles, Lopez urges us to acknowledge that animals are complex beings whose full aspects of life and extensive and ever-changing entanglements with the environment can never be completely known to us. In this sense the text's references to quantum physics enhance the mystery of the animal. Quantum physics becomes part of what is in *Arctic Dreams* a scientific and highly developed form of aesthetics in which beauty is associated not merely with the conception of 'primal' and/or 'harmonious' orders of nature, but also with the mystery and uncertainty of the creative plurality of self-organizing, ever-evolving life-forms.

My analysis has uncovered how Lopez's evocations of a multitude of animal lifeworlds challenge traditional Western conceptions of space and time. Both become relative to the biological subject through whose perspective the natural environment is presented. De-centering the human perspective on space and time allows Lopez to bring forth different human and animal histories in, and perceptions on, the Arctic. Together with the text's evocation of a series of (both concrete and more elusive) animal-environment relationships, this focus on animal lifeworlds changes the image of the Arctic from a region of empty, static and lifeless space, to a region of distinctly social and lively places in which individual life trajectories and communal human and animal histories meet. Accordingly, the Western human perspective of the narrator becomes in *Arctic Dreams* only one among several perspectives on the land, not all of which are human.

Lopez's representations of arctic animals tend to confirm their success in adapting to a challenging natural environment. His encounters with them emphasize the achievements and the heroism of their survival in these landscapes, and often express Lopez's engagement and

feelings of wonder in meeting animal individuals. There is no sense in this text that the animal is defined against the human in terms of lack. To the contrary, Lopez' presentation of for instance the polar bear effectively deconstructs the human-animal dualism of Western anthropocentric culture. Drawing on insights from both Inuit observers and Western field biologists, Lopez portrays the polar bear as an animal not only successful in adapting to a challenging arctic environment, but as one whose intelligence, ability to learn from experience, and to fashion (in denning) the environment according to its needs confirm its ontological status as an equal to humans. In addition to challenging what Plumwood terms the *hyper-separation* of the human and the animal (101), Lopez's descriptions of the life of the polar bear and other arctic animals reveal their land-use and long-time history in the land. The text's many evocations of animal lifeworlds effectively block the *backgrounding* (Plumwood 104) or disregard of animal life in the Arctic, and defy all tendencies to reduce arctic animals to one homogenized class of beings.

Just as *Arctic Dreams* repudiates the tendency in Western culture to view Inuit cultures as 'primitive isolates' segregated from our own in space and time, it also criticizes the way in which our culture has regarded animals as less developed or 'primitive' forms of life, studied in isolation as decontextualized objects of science. Consequently, after having performed an ontological leveling of humans and animals and emphasized the social nature of intra- and inter-species animal relationships, *Arctic Dreams* recognizes the ability of animals to form societies and cultures. The land becomes that civilization to which all these societies belong: an unquestionably social nature-culture whose landscapes are simultaneously its foundation and its inter-cultural, inter-species texts.

The Arctic of Lopez's *Arctic Dreams* is thus drastically different from the Arctic of Parry's *Journal*, in which it appears as a more or less lifeless wasteland and boundary to the modern scientific world. It is also different from the Arctic presented in the narratives of those nineteenth-century whalers to which *Arctic Dreams* refers (in my work exemplified by Scoresby's *Account*). This change in representation functions as a land-claim argument on behalf of arctic animals. The very narrative structure of Lopez's text supports this argument. Because the text opens with several chapters that present a profusion of animal lifeworlds, 'societies' and 'cultures,' this social and vital understanding of arctic landscapes remains with the reader even as the narrative progresses to give a historical account of Western encounters with these landscapes. In Lopez's environmentally concerned text the purpose of this implicit land-claim argument is no doubt to decelerate or halt further careless exploitation of the

region's natural resources (including its animals), of which the nineteenth-century whalers' chronicles are a reminder.

Arctic Dreams also displays a heightened sensitivity towards the physical materiality of arctic landscapes. This appreciation of the material serves to counteract a denigration of the natural world, even in its most aestheticized representations. Whereas early critics on the basis of the text's ecological aspirations and aesthetic forms of representation placed *Arctic Dreams* within a traditional Romantic discourse, I have in my dissertation argued that Lopez's text enters into a dynamic relationship with literary Romanticism. Like its engagement with Inuit epistemology and the mentioned new scientific disciplines, Lopez's engagement with Romanticism works to question the dualistic tendencies of Western thought. The text evokes Romantic symbols and applies Romantic aesthetic modes such as Transcendentalist catalogues, creative dichotomies, and the natural sublime in order to reveal their possibilities and limitations, while simultaneously reworking them to suit its own more materialist vision of the Arctic. The catalogues of *Arctic Dreams*, which appear much like hybrid combinations of the scientific catalogues of arctic exploration narratives and the catalogues of the literary Transcendentalists, reveal themselves upon closer inspection to evoke a different and ecologically based sense of unity. The textual function of these catalogues is to enhance the intrinsic and multifarious value of environmental phenomena, whether these take the shape of a concrete animal like the narwhal or a biological event like migration. Lopez's evocation and reworking of the black-and-white dichotomies of arctic landscapes, like his integration of the aesthetics of the sublime with the aesthetics of the beautiful, can be read as part of the text's argument against dualistic forms of thinking that reduce and simplify the complexities of the world we live in.

The reworked sublime of *Arctic Dreams* further expresses Lopez's refusal to leave the world of sense for insights of a purely transcendental order. By redefining the Christian concept of *agape* to include "the mystery [it] is 'to be sharing life with other life'" (*AD* 250), Lopez redirects the sublime away from a Romantic sense of unity with God and towards a sense of unity with *all* living things. Bringing the sublime together with the beautiful allows recognition of the social nature of the natural world, even in its expressions of power. Thus in *Arctic Dreams* the aesthetic, which the literary Romantics believed to be that which connected man with God, connects the human being with the material environment and its others. This process of aesthetic connection recognizes precisely that radical otherness of the natural world

that the old aesthetics of the natural sublime worked to suppress. In my view, this is perhaps the most remarkable achievement of Lopez's revision.

Arctic Dreams resembles earlier Romantic texts in proposing that in wild landscapes one might still experience the 'primary' or 'original' order of the world. Unlike in Romantic texts, however, this order is in *Arctic Dreams* neither stable nor the expression of some transcendental ultimate Mind. To the contrary, the order of the world's unity-in-diversity is always in the becoming, through the playful interactions of living and non-living beings. Where the Romantic poet saw in the horizon a harmonious image of nature in its entirety, Lopez in *Arctic Dreams* acknowledges that the vast multitude, the intricate interconnectivity, and the inherent creativity of all of nature's forms are beyond the intellect's comprehension. The extent, vitality, and mutability of nature instead generate a new ecological sublime through which Lopez finds himself phenomenologically entangled in material relational networks of incomprehensible extent and complexity.

Arctic Dreams never performs that 'inward swerve' Dana Phillips finds characteristic of nature writing. Because the organicist world model of quantum physics emerges in in the text as a more developed substitute for the Romantic organicist one, there is no need for the poet's imagination to generate its own vision of a transcendental whole-in-unity. Rather, the interconnectivity of the world is expressed in the very nature of the natural phenomena themselves. Unlike in texts of the Romantic tradition, the world of matter is in *Arctic Dreams* the determining force in the relationship between matter and mind. The text remains with the material even in its reworking of the aesthetics of the sublime.

However, Lopez's continued attention to physical facts does not express the kind of slavery to the merely material that the Romantics so ardently opposed. As I have tried to show in my analyses, if we pay careful attention to the factual, scientific details of *Arctic Dreams*, and if we stay close to the text also in those initial chapters in which arctic animals, landscapes, and ecosystems are described, it becomes evident that environmental proficiency does not block direct or 'true' communication with nature. Rather, in *Arctic Dreams* scientific knowledge gives recourse to different forms of communication with the natural environment and with non-human others. Because the text possesses these characteristics, and because it employs science in ways that challenge traditional scientific epistemologies and quite overtly attempts to mediate between scientific and literary forms of representation, I would argue that to the extent that we may still read *Arctic Dreams* as a text with a Romantic lineage, this lineage is Thoreauvian rather than Emersonian.

Because *Arctic Dreams* is a text of nature writing, and as such accountable to the natural environment it describes, it seems perfectly logical that the role of the poet is here less pronounced than in a great many texts of the Romantic literary tradition. This change represents not a diminution of the poet but a change in his function relative to the text. Although he critiques science for its ‘single-vision’ and love of abstraction, Lopez makes no attempt to substitute the worldview of the poet for that of science. Instead, the role of the poet in *Arctic Dreams* becomes to evoke an awareness of the aesthetic potential of scientific facts, and to supplement such facts with insights from other cultures and from the alternative investigations of art. This text, which evokes the biological ecotone at the edge of the floe ice, may itself be regarded as a form of literary ecotone or contact zone. From his position at the arctic ice edge, the poet acts as catalyst for new ways of thinking about the Arctic by bringing together a range of human and animal perspectives on the land. Within the creative interplay of these perspectives, different ontologies and epistemologies meet to challenge a series of concepts central to our modern Western understanding of the world: the concept of the animal, of the subject, and of subject-object relationships. As my dissertation demonstrates, some of these concepts have already been challenged within modern disciplines of science that have developed conceptualizations of context-dependence, interconnectedness, and involvement similar to the Inuit epistemologies on which the text draws. Whereas Lopez thus stimulates an ‘evolution of thought’ along paths on which modern Western culture have already taken its first tentative steps, this evolutionary process is in *Arctic Dreams* seen as something Lopez is *part of* rather than *creator of*. Just as Lopez ascribes difference, creativity, and unpredictability to the natural environment, his presentation of this conglomerate of perspectives stimulates his readers to rethink their current outlook and develop more complex, less distortive conceptions about this northernmost part of the natural world.

My approach to *Arctic Dreams* is novel in being distinctly arctic. In consideration of the text’s insistence on physical and historical context dependence, I have analyzed *Arctic Dreams* as part of the literary traditions of American nature writing *and* arctic exploration literature. *Arctic Dreams* radically expands the hybridity already existent in nineteenth-century exploration narratives by drawing on discourses and epistemologies beyond those of traditional Western science. By acknowledging the presence of such different forms of perceptual framings of the Arctic within the text, and by examining these as part of the textual contact zone of *Arctic Dreams*, my analyses have opened up new aspects of the text and concretized its challenge to traditional Western representations of the region. In investigating

how this multitude of perceptual frameworks and points of view come together in Lopez's text, it soon became evident to me that sometimes their perspectives are in harmony, sometimes not. Mine is therefore not the only possible interpretation of *Arctic Dreams*, but one I hope to have convincingly demonstrated can be made.

My investigations of the textual contact zone of *Arctic Dreams* have brought out in more detail the postmodern qualities of Lopez's text that Campbell in 1989 identified. I have found *Arctic Dreams* to be postmodern both in the way it challenges established hierarchies of Western culture that separate mind from matter, culture from nature, and in establishing a distinctly postmodern vision of the natural environment. *Arctic Dreams* is also postmodern in arguing for a critical revisiting of old conceptions about the Arctic, particularly of the old cultural metaphors we still tend to rely on in meetings with arctic natural environments. In giving critical attention to the detailed scientific descriptions of arctic animals, physical materiality, and ecosystems, my dissertation has further revealed the need to rethink earlier characterizations of *Arctic Dreams* as a work of nature writing in the Transcendentalist tradition, and to recognize instead the new materialist qualities of this text. As evident from the discussions here presented, Lopez's *Arctic Dreams* is a literary contact zone in which an older humanist or Enlightenment form of modernity meets a more contemporary and posthumanist one.

In the old arctic explorer narratives to which *Arctic Dreams* refers, Lopez encounters an earlier version of his own Western culture's relationship with the natural world. As this culture increasingly turns its attention to the Arctic, it does so with much the same hope of finding there the ground for further economic development as those European explorers felt who centuries earlier entered the more southern regions of the American continent. In the context of the present day, Lopez's *Arctic Dreams* may be said to assume a heightened relevance and exacerbated urgency; it insists to us that there is no reason why we should today retain the same, century-old attitudes towards the land and its animals. Presenting a historically contextualized, "self-reflective and self-critical" narrative of the Arctic that seriously considers the "limitations and failures" of our anthropocentric culture (Plumwood 10), *Arctic Dreams* reveals the potential of the 'environmental' or 'ecological' humanities to make us rethink and revise our relationship with the natural world. As Val Plumwood puts it in *Environmental Culture*: "Our capacity to gain insight from understanding our social context, to learn from self-critical perspectives on the past and to allow for our own limitations of vision, is still one of our best hopes for creative change and survival" (10). In

this capacity, I believe, lies the answer to Lopez's question of what the nature of the heroic becomes in meeting with the threatened landscapes of the Arctic.

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