CONTEMPORARY ECOCRITICAL METHODS

Edited by CAMILLA BRUDIN BORG, RIKARD WINGÅRD, and JØRGEN BRUHN

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Contemporary Ecocritical Methods

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We dedicate this anthology to all the various, fruitful, and creative ways that can lead us into futures where humans and more-than-humans will hopefully have learned to coexist: attentive, respectfully, and environmentally—and within the limits of the planet.

Introduction

Camilla Brudin Borg, Jørgen Bruhn,
and Rikard Wingård

Ecocriticism is a critical and creative perspective that investigates questions that revolve around issues like the environment, planetary survival, and interactions with the more-than-human. It was introduced more than thirty years ago and has since become a well-established and in many countries institutionalized form of cultural inquiry. It is a major component of the environmental humanities, especially as climate change and other environmental crises have become dominant global concerns inside and outside academia, including in Sweden, the context in which this anthology has been composed.

Ecocriticism initially aimed to study nature in literature, as defined by Cheryll Glotfelty and Harold Fromm: "ecocriticism is the study of the relationship between literature and the physical environment" (1996, xviii). This initial ecocritical interest in nature, or the environment, has since been expanded and significantly reworked. The target of ecocritical research is not necessarily confined to explicit representations of nature or the environment. Similarly to the way gender studies has theorized how its topics and material do not have to be confined to explicitly addressing gender relations, ecocritical analysis can be used for many kinds of themes and materials.

Greg Garrard suggested that "the subject of ecocriticism is the study of the relationship between the human and the nonhuman, throughout human history and entailing critical analysis of the term 'human' itself" (Garrard 2012, 5). There will always be an environmental dimension, or a human and nonhuman relation, to all cultural texts and phenomena. Today, ecocritical studies engages directly with the multispecies stories of the Anthropocene (see, for instance, Bencke and Bruhn 2022) as well as with other agencies such as the disastrous forces behind the climate crisis (Bracke 2018; Goodbody and Johns-Putra 2019). Ecocritical scholars even read the stories about matter itself, and about the world's material phenomena, as "knots in a vast network of agencies" (Iovino and Oppermann 2014, 1). Other ecocritical scholars

discuss and include in their teaching stories that are found in other media, such as art, film, advertising, and nonliterary texts such as government documents or popular science texts (Bruhn and Salmose 2024; Rust et al. 2024).

As a consequence, a whole range of new, and renewed, methods, sometimes overtly experimental ones, have become intertwined with other disciplinary methods, producing complex interactions (or intra-actions) with the world itself (Barad 2007). "Old ways" of reading and studying literature have become renewed as the environmental threat has grown and is growing bigger and bigger. Most of the contributions in this anthology argue that it is not a particular set of materials that is inherently "ecocritical," even though all of the field is mostly focused on environmental questions. It is the applied perspective, the methodological approach, that is ecocritical, not necessarily the content, and some of those methods will be presented in this anthology.

As the field of ecocriticism has grown over the years, it has gradually developed a broad spectrum of new epistemological, ontological, and ethical inquiries in its quest for different ways to understand human relations to the environment and the history behind the current crises, as well as to enhance the prospects for a more sustainable future (Trexler 2015; Bracke 2018; Goodbody and Johns-Putra 2019). Ursula K. Heise circumscribes the rich palette of ecocriticism by way of a series of questions:

> In what ways do highly evolved and self-aware beings relate to nature? What roles do language, literature, and art play in this relation? How have modernization and globalization processes transformed it? Is it possible to return to more ecologically attuned ways of inhabiting nature, and what would be the cultural prerequisites for such a change? (Heise 2006, 504)

New ontological perspectives and understandings of the world's inherent diversity, where not only humans are included but also the rest of the planet's richness, have revitalized the ecocritical methods concerning how to read texts. Ecocritical perspectives have over the years drawn inspiration from various fields, including indigenous and postcolonial studies, power and justice perspectives, critically oriented consumption philosophy, biocultural perspectives, environmental communication, empirical reception studies, affect studies, cultural ecology, ecomedia studies, and intermedial studies to name some of the most prominent. This makes the field of ecocriticism highly interesting for literary and media studies in general, as well as for other disciplines dealing with representations, narratives, and storytelling in the Anthropocene.

Some of the ecocritical methodologies used in this anthology, particularly the close reading technique, may at first glance appear traditional. However, as the reader will see demonstrated later, classic close reading approaches are being transformed into alternative ways of becoming more attentive as

the field has expanded and has experimented with new kinds of texts and new ways of reading. Other well-established methods of exploring texts, such as those used in narratological, thematic, and metaphor studies, are cross-pollinated by the ethically and politically inclined perspective of ecocriticism. They are therefore challenged to go beyond traditional anthropocentrism to find ways to include more-than-human beings, nonhuman agencies, or indeed matter itself. Thus, contemporary ecocriticism often highlights what has previously been considered the "background" of the human interactions in plots and makes important additions to classic narratology as it was systematized in Gérard Genette's *Narrative Discourse* (1980). Ecocentric attitudes have been extended by zooming out from traditional perspectives so that global, or even planetary, points of view are added to the understanding of the narrative construction (Chakrabarty 2009; Morton 2013; Clark 2015). In this way, traditional narratological methods have been given new perspectives gathered not only from possible world studies and studies of place and space (Ryan 1991; Herman 2018) but also from the ethical tradition that has been absent in "classic" narratology, and this has created new ecocritical narratological understandings of texts. Erin James and Eric Morel stress in *Environment and Narrative: New Directions in Econarratology* (2020) that "a study of narrative must attend not only to narrative categories and classification but also to narrative as a multisided ethical interaction" by attending to environmental issues (8–9). The field of empirical ecocriticism, introduced by Małecki and Schneider-Mayerson (Schneider-Mayerson et al. 2023) in a book with the same name, has been in close contact with empirical science and its traditional methods, such as interviews and focus group studies, but adds an ecocritical thematic to its studies of readers' perceptions of various stories.

Ecocriticism's ethical ways of seeing the connection between the text and the world and bringing in new ontologies that challenge the dichotomy between humans and nonhumans have given rise to a rich palette of methods by eclectically drawing inspiration from various other disciplines. The field has thus expanded widely, but rather than describing the changes as a series of waves (Buell, 2005) that are rolling in, one after the other, ecocriticism can today be seen as an organic and ecological "household" (from the Greek *oikos*), an expanding architectural structure that year after year has been extended and rebuilt with extra spaces, welcoming new members to the community.

In this anthology, we provide examples of a wide variety of methods used by ecocritical scholars today for the benefit of new as well as more experienced students of ecocriticism. This anthology is in this sense intended as a toolbox that showcases how one does ecocritical analysis—and not just why one should do it.

METHODS AND ECOCRITICISM

"Understood as the work of reading, literary criticism has no method," Toril Moi writes in her work *Revolution of the Ordinary*, and she continues, "[W]hether I do a postcolonial or a feminist or a psychoanalytic reading, methodologically I do the same sort of thing: I read" (Moi 2017, 178). But is it really "just" reading? In ecocriticism, as well as in literary studies in general, it is worth thinking about and continuing the discussion about method. In more empirically oriented fields of literary studies, including literary sociology, reception studies, and historical-biographical research, methodology is certainly still an ongoing discussion that is implemented in analytical practices and in education. And in the 1960s and 1970s, methodological discussions were far more dominant than they are now.

One likely reason for the rich outflow of methodological discussions during these decades was the critique of traditional literary research methods (historical, biographical, psychological, and sociological) voiced by the New Criticism movement and famously formulated in René Wellek and Austin Warren's *Theory of Literature* (1948). New Criticism strongly questioned the ability of literary studies to do justice to the "analysis, description, and evaluation of a literary work" by using the traditional methods (Wellek and Warren 1948, 105; Jørgensen 1971, 44). More generally, the debates on methodology during the 1960s and 1970s can be seen as one expression of the "crisis" of literary studies, which came to characterize the academic climate during these decades and onwards, when the older, "empirical" approaches were threatened not only by New Criticism but in particular by an increasingly broad spectrum of "theoretical" perspectives; these were very skeptical about any belief in objectivity or positivism and about the possibility of achieving truth through scientific research (Gustavsson 2005; Hyltén-Cavallius 2018, 16–19). Given that a rational, logical, and accountable method was the cornerstone of the scientific search for valid scientific results, it was only natural that the interest in methodology decreased after "theory" won over "empiricism" and, broadly speaking, came to dominate the discourse of literary studies.

Ecocriticism may be seen as yet another branch that emerged from the theoretical tree (to employ a used but apt metaphor), but what largely sets ecocriticism apart from other theoretical approaches in literary and cultural studies was, at least initially, its close connection to the natural sciences. In many ways, it reacted to what was perceived as an excessive abstraction and distancing from physical reality, for instance among post-structuralist literary scholars and cultural theorists. "It is not language that has a hole in its ozone layer," as Kate Soper stated (Soper 1995, 151). Although ecocriticism has been increasingly theorized since the early years, the original starting point

has not been left behind, namely that there is a world "out there" that we must care for. This starting point has, perhaps to a greater extent than in other theoretical orientations, led to a methodological, innovative curiosity—which this anthology aims to show. How can we approach this world, which, through our own fault, is crumbling? How can we understand it and live with and in it in a way that does not oppose its inner dynamics? These are among the questions that drive ecocriticism forward, and as the environmental problems intensify and are being more frequently discussed, scholars and teachers interested in ecocritical questions have continually created propositions concerning how we should produce knowledge, do research, and teach literature (see, for example, Gibson, Rose, and Fincher 2015).

Ecocritical methodological curiosity takes many forms. In this anthology, scholars borrow or discuss methodological approaches used in other branches of science (see the chapters by Małecki and Schneider-Mayerson, and by Hellström in this anthology, but also those by Wingård, and Bruhn and Salmose), but they have also been inclined to leave their desks and reading chairs to confront the texts they read with their surroundings (see, for example, the chapters by Brudin Borg, and, again, those by Małecki and Schneider-Mayerson, and by Hellström). Much can still be seen, though, as lying within what Moi characterizes as "reading" (here foremost represented by Lindbo, van Ooijen, Lönngren, Björck, Duncan and Billing). However, the idea that "reading" does not contain a method could be contested, and one of the purposes of this anthology is to highlight some of the different methodological aspects of ecocritical "readings."

According to the *Oxford English Dictionary*, "method" is defined, among other things, as "[a] special form of procedure or characteristic set of procedures employed (more or less systematically) in an intellectual discipline or field of study as a mode of investigation and inquiry, or of teaching and exposition." Adopting a certain method therefore means making a series of choices in relation to a specific purpose: to do *x* but not *y* to accomplish *z*. The researcher must decide what to research, why, and how, and the questions arising from the researcher's *what* (scope of work), *how* (procedure), and *why* (purpose) can be said to be so closely linked that they are in fact inseparable. Danish literary scholar John Chr. Jørgensen, writing in the heyday of the Scandinavian methodology debates, refers to all three parts combined as the method, rather than just the question of "how" by itself (Jørgensen 1971, 13–14 passim).

Even if one does not accept such a fusion of the entire research process into the method, one should nevertheless consider the argument that when it comes to analyzing a literary work, the method mainly involves one or both of two dimensions (Jørgensen 1971, 25): *disposition*, that is, the order in which one does things (or chooses to present them), and *tools*, which refer

to the devices used in the study. The tools can be technical, such as statistical calculations, surveys, digital tools, and so on, but they also can be purely intellectual. Theoretical concepts are of the latter type, and the researcher uses these to investigate the text. Depending on which theoretical concepts we choose, different parts of the text will come to the fore while others will remain in the background. A feminist reading and a postcolonial reading of the same work do not become identical, because, among other reasons, the researcher chooses and applies different sets of theoretical concepts to process the text that are in line with the purpose to be achieved (see Israelson and Olsson's chapter in this anthology). Analyzing with macro- and microscopic scales or geological temporalities in mind (as Billing does in his chapter) focuses the text, image, film, or whatever it may be in a different way than focusing attention on material or nonhuman agency (as Lindbo, Lönngren, Björck, Israelson and Olsson, and Brudin Borg do in various ways).

Therefore, a theory is certainly not a method, but it can be applied and implemented as part of a methodology. We do more than just "read" when we read, and this anthology aims to encourage us to become aware of the choices that each literary research method involves. It seems evident that in many academic fields we cannot employ scientific methods in the sense of producing repeatable and fixed steps to answer a specific set of questions (Małecki and Schneider-Mayerson's contribution in this anthology, however, represents the opposite case), but this in itself should not be taken as an excuse for regarding methodological issues as irrelevant to literary studies. Ecocriticism, in its efforts to understand the relationship between representations of the world and the world itself without adhering to the Cartesian division between consciousness and the world, has led to new and interesting ontological as well as epistemological positions. These questions, on several levels, problematize previous scientific practices—to which many chapters in this anthology testify.

One ecocritical, methodological tendency that the reader of this anthology will consistently encounter is a call to develop new forms of *attention*. Attention is a technique that can be further developed as a method. The call to read attentively includes an implicit critique of some previous methodological approaches that make anthropocentric assumptions. An "inattentive" way of understanding is an attitude that is uninterested in listening to the other or in establishing communication or turn-taking. This attitude reveals the subject's desire to dominate the rhetorical space and to value its own perspective more highly than the other's. Thus, the anthropocentric mindset over centuries has been able to disregard other lifeforms on the planet. Several scholars in this book are opposed to this disinterest and return to the importance of careful listening and a renewed attentive vision that transcends anthropocentrically based assumptions and limitations created by the anthropocentric

gaze (Lönngren, for instance). The anthology explores several proposals for ways of moving out of this gaze, including Timothy Morton's acknowledgment of the strange stranger (van Ooijen), the respectful surrender of space to other living beings and their lifeworlds in animal studies (Björck), post- and decolonial perspectives (Duncan) and the productiveness of future perspectives (Leppänen), and through holistic epistemologies and methods based on the development of the ability to pay attention (Wingård; Lindbo).

PRESENTATION OF THE CONTRIBUTIONS

Björn Billing's chapter, "Zooming Out to the Anthropocene," takes as its starting point the new planetary insight resulting from the "Blue Marble" photograph dating from around 1970. Billing asks how ecocritical methods can help understand the new planetary themes and representations, and how an Anthropocene planetary perception can be understood in ecocritical and cultural analysis. Billing does this through a methodological demonstration of "zooming out," a device that he finds in the movie *Texas Chainsaw Massacre* (1974) and in Caspar David Friedrich's painting *Das grosse Gehege bei Dresden* (1832).

Rikard Wingård's article, "Holistic Method as an Ecocritical Quest," touches on an issue addressed continuously throughout this volume concerning the supposed separation between humans and the environment (the more-than-human) and how this divide can be bridged. Based on the work of the quantum physicist David Bohm, Wingård argues that all such separation is an illusion that has been reinforced in modern times by the modern scientific paradigm and its methods, which are rooted in the belief that there is an observer separate from what is being observed. Wingård sees a danger in the possibility that even ecocritical studies might miss its goal if it uses methods based on the same fundamental assumption and does not actively attempt to break free from it. What he seeks, in contrast, is a method that provides an alternative to conventional scientific procedures, where the method itself serves as a critique of the scientific paradigm. In this way, the method becomes its own ecocritical goal, whereas the specific interpretations of texts that can be achieved through it are of less importance. Wingård tentatively proposes a method drawn from what Goethe (who primarily considered himself a forward-thinking scientist) called "delicate empiricism," which is based on an intense and dynamic observation of phenomena. When applied in a literary context, this method has the potential to practice holistic thinking and has the power to dispel the illusion of the world consisting of separately existing objects.

The more-than-human is at the center of Ann-Sofie Lönngren's chapter, and she begins by stressing that one effect of ecocriticism has been to redefine the entire corpus of literary studies. Lönngren is primarily interested in posthumanist aspects of ecocriticism, which imply that the divide between the human and the nonhuman world is seen as "historically changing categories that are stuck in a fundamentally unequal relationship." Thus, humans are related to animals but also to other agents in the world, which earlier philosophical and literary systems often overlooked. By activating critical knowledge of what Lönngren calls the anthropocentric gaze, it becomes possible, she argues, to discover new relationships, new agents, and new perspectives within and outside of literature. Through a posthumanist reading of an anti-lesbian motif in August Strindberg's *En dåres försvarstal* (*A Madman's Manifesto*), previous interpretations are contrasted with an understanding of the text that focuses on human as well as more-than-human agency, given that agency permeates all matter, and not just living, conscious (human) organisms. This should not necessarily be understood as a rejection and replacement of previous perspectives but as a counterpoint offering new and challenging insights.

Rebecca Duncan, in "Post- and Decolonial Ecocriticism: How to Read on an Unequal Planet," discusses ways of reading literature while taking seriously "the disproportionate distribution of the effects of climate breakdown across the world's former colonies." After briefly mapping the important prehistories of postcolonial and decolonial literary methodologies, Duncan offers an analysis of three South African texts by J. M. Coetzee, Nadine Gordimer, and Vonani Bila. Her readings demonstrate that "literary analysis matters in efforts to understand and address contemporary socio-ecological inequality." And by combining insights from postcolonial, decolonial, and post-critique theory, it becomes possible to see that "literary narratives [are] sites at which wider narratives of race and nature are contested, renegotiated, and rewritten such that the world, too, can be remade."

Katarina Leppänen asks what functions (literary) utopias have in our present and future climate-ecological crisis. In "Critical Utopia or Climate Change Dystopia?" Leppänen begins her investigations in Tom Moylan's influential ideas about the potentials of utopian thinking. Discussing the characteristics of critical literary utopias and methods to analyze them, she stresses, in line with Moylan, that "[t]o make the historical and political challenge happen, the [utopian] text needs to be open and self-reflexive, and Moylan contends that the critical utopian genre therefore often presents fragmented narratives and works with intertwined temporalities, multiple protagonists, including, on occasion, male and female versions of the same character." Following Moylan's method of a three-step analytical process that includes, first, "Alternative Worlds," second, "Protagonists," and third,

"Ideological Contestations," Leppänen exemplifies her ideas by discussing Barbara Kingsolver's *Flight Behavior* (2012) and Emmi Itäranta's *Memory of Water* (2014). She concludes on a hopeful note, not unlike Duncan, that "[a]t its best, the combined interest in climate and in literature manifested in these works can enrich our inquiries into the ethical dilemmas we face, as well as contributing to narrative innovations as we struggle to grasp and represent the social, political, and ecological consequences of anthropogenic change."

The planetary scales discussed in Billing's article clearly relate to one of literary scholar and philosopher Timothy Morton's most discussed concepts, the "hyperobject," designating a new sort of object that extends anthropocentric scales in time and space. In "Timothy Morton's Ambient Poetics: Swedish Romanticism without Nature," Erik van Ooijen offers an introduction to and exemplification of Morton's influential work by focusing on concepts like "dark ecology," "ambient poetics," the "hyperobject," "mesh," and "strange strangers." These concepts' methodological and interpretative possibilities are thoroughly discussed. While some ecocritical schools would stress the representative abilities of literature (the "what" of literature), Morton repeatedly stresses literary form, the "how" of literature. According to Morton, and van Ooijen, the aesthetics of literature and the arts challenge the philosophical systems that are responsible for the current ecological crisis, and aesthetic ambiguities, including irony, undermines conventional, destructive views on nature. The arts, for Morton, offer alternatives to the destructive split between subject and object that is so predominant in Western thinking, a dichotomy that several of the writers of this anthology address. van Ooijen operationalizes Morton's concepts in his reading of a number of classic texts by Swedish writers.

Johanna Lindbo and Amelie Björck (see below) address metaphor and metonymy as methodological tools and consider how to use these in ecocritical contexts. Lindbo shows how the analysis of metaphors, combined with econarratology, makes it possible "to read and interpret the depictions of the environment and the more-than-human beyond traditional narratological descriptions of them as mere backdrops or props for the central protagonists, humans" using a renewed (eco)narratology to broaden perspectives and readings to include more-than-human aspects and stories. This is influenced by, among other things, new materialism, cognitive research, indigenous perspectives, and animal studies. Lindbo particularly emphasizes "attention" as a key concept for approaching the more-than-human. Through an analysis of Birgitta Trotzig's short story "Ormflickan" ("The Snake Girl"), Lindbo illustrates how her idea of attention, combined with the analysis of metaphors and other tools from econarratology, can be put into analytical practice.

Amelie Björck, in "Animal Studies: Metonymic and Zoopoetic Ways of Reading," demonstrates how "[l]iterary and cultural animal studies are part of the ecocritical field, but they also differ because of their specific foci on *living* beings and their (power) relationships." Björck critically confronts Western anthropocentrism, the human-centered view of the world. She operates using two main analytical perspectives that are found in literary animal studies and that are often combined. The first concerns representation and justice in literary portrayals of animals, while the second focuses on formal and poetological perspectives on animal portrayals. Both are inspired by, among others, French poststructuralist thinkers and activist movements related to the climate crisis and animal rights. A crucial aspect of Björck's proposal for an animal-oriented approach is opposing conventional reading methods, for example interpreting animals in a literary text as symbols of something rather than individuals in their own right. Instead, Björck suggests a metonymic and a zoopoetic reading method. Both methods involve opening up levels in literary texts that conventional literary analysis tends to overlook, as she demonstrates through a close reading of Les Murray's poem "Shellback Tick." According to Björck, the "poem seems to want to renew the readers' relationships with the small arachnid and with their own position as fellow beings."

While most of the contributions in this anthology emphasize that a fairly direct confrontation with the anthropocentric perspective is necessary for human survival, Martin Hellström has taken on a different blind spot within conventional literature and cultural studies, namely the ever-present adult gaze resulting in an absent child's perspective. In his article, Hellström shows how it is possible to avoid the routine interpretation, that ignores the fact that even an adult interpreter starts from themselves, through a literary analytical method that gives children a central place in the interpretation of literature. He is inspired by traditional literary reception studies, children's literature studies, and citizen science methods. The method of "co-researching literary conversation" is not inherently tied to ecocriticism but can be applied to literary material that directly or indirectly addresses environmental issues. In "Co-researching Literature Conversations," Hellström provides a step-by-step guide to how children and young people can participate in ecocritically related literary conversations. The suggested method can be perceived as both co-research and a conversation in its own right, creating renewed awareness for all participants, children and adults alike. A genuinely questioning and open attitude is essential, and Hellström provides a concrete example of the method by referring to a co-research conversation he organized around three Swedish picture books: Linda Bondestam's *My Life at the Bottom: The Story of a Lonesome Axolotl*, Julia Hansson's *Billie and Bean at the Beach*, and Emma AdBåge's *Nature*.

Like Hellström, Wojciech Małecki and Matthew Schneider-Mayerson deviate, methodologically, from the idea that an individual researcher analyzes the literary work. Instead, they are interested in the effects of literature on non-professional readers. Unlike Hellström, whose goal is to present an analysis of the literary work, Małecki and Schneider-Meyerson focus on empirical ecocriticism. This includes an examination, often employing quantitative methods used in social science, of the impact of literature with ecocritical themes on its readers to address a range of questions regarding the reception of narrative texts with environmental themes. The combination of environmental humanistic perspectives and experimental methods has the potential to better understand how culture shapes attitudes about issues like climate change and how these attitudes can potentially be managed and changed.

Per Israelson and Jesper Olsson offer an overview of media ecology and the contemporary conditions of the rich fields for producing and reading literary digital material with a posthumanist and environmental focus that includes climate-ecological, societal, and technological dimensions. Taking Richard Powers' "multidimensional" novel *The Overstory* (2018) as their point of departure, Israelson and Olsson exemplify and discuss theoretical positions and analytical procedures relating to new technologies and digitalization. The analytical ideas of the field of media ecology are played out in three methodological case studies using poetry, novels, and graphic novels, respectively. The chapter "Overstories. Reading, Digital, Media, Ecologies," going back to both media theoretical (McLuhan) and techno-philosophical (Simondon) inspirations, as well as recent positions concerning digital literacy (McGann and Hayles), suggests new and sometimes surprising routes to the question of what is conventionally considered writing or reading, in environments and about environments.

The communication of environmental issues in different media types is the focus of Niklas Salmose and Jørgen Bruhn's contribution, "Intermedial Ecocriticism." Their starting point is the absence of methods for analyzing and comparing environmentally related motifs in different media types—a novel, an art exhibition, a newspaper advertising piece, or a poem. Therefore, they explore the possibilities of merging ecocriticism and intermedial studies, the latter understood here as the field that examines how different media types can be combined and how aspects of form and content can be transferred and transformed when they travel from one media type to another. Thus, intermedial studies serves as an analytical tool alongside ecocritical inquiries in what they refer to as intermedial ecocriticism. To demonstrate their method, Bruhn and Salmose compare how the question of the future of food is presented on the popular science website EAT.org to how it is depicted in the science fiction film *Blade Runner 2049* from 2017.

Like several of the previous chapters, Camilla Brudin Borg's "Ecocritical Spatial Methods" starts by considering ecocriticism's endeavor to understand the entanglement of humans, their environment, and the more-than-human. Investigating the meaning of place, she uses a spatial mapping method in which the tools employed are taken from those used in geocriticism, from theories on "space" and "place," but also from Michel Foucault's idea of "heterotopia," which refers to enclosed places that are characterized by their own particular logic or laws. Those tools are exposed as mainly anthropocentric as a first critical step to building an essential entry point for the ecocritical analysis of literary place.

Brudin Borg then demonstrates how a particular place and nonhuman agents contribute to building *storyworlds*, and that the production of meaning in storytelling that thematizes walking in a particular place can be analyzed by combining the analysis of metaphors with econarratological approaches, similar to what is done in Lindbo's work. Two works of autofiction are used as examples, and in both of them, hiking is a motif and a guiding metaphor: Hape Kerkeling's *I'm Off Then: Losing and Finding Myself on the Camino de Santiago* (2009) and Cheryl Strayed's *Wild: From Lost to Found on the Pacific Crest Trail* (2012). As an additional analytical step, Brudin Borg suggests an even more concrete, space-oriented method, namely "shadowing" the object of study or conducting field studies in other ways. By having the researcher leave her armchair to move to the places mentioned in the literary work or the places where authors have stayed during their writing life, the analysis can deepen and open up new interpretive possibilities.

Stating, initially, that "words matter and correlate to worldviews, to ways of living" and to the "social fabric," Cecilia Åsberg, in "Afterword: Storying Exposure with the Transversal Methods of Eco-Critique," goes on to focus on how stories expand "our imagination of the thinkable or focusing our attention to detail" in ways that the numbers and facts of the sciences cannot offer. The deep focus on "storying" is among the traits she finds attractive in the contributions to this anthology. She more or less ends her article, and this volume, with the following, hopeful words:

> The ecocritical approaches here present the proverbial "smorgasbord" (*smörgåsbord*), a plethora of tools and guidelines facilitating and framing the research process in creative ways. Taken together, in an organic synthesis that reaches well beyond these pages, I think of them as one multivalent engine of discovery. (Cecilia Åsberg, Chapter 14 in this volume).

THE AIM OF THE ANTHOLOGY

Over the years, several surveys of ecocritical theory have been published, but works focusing on ecocritical methodology are lacking. Because ecocriticism, with its forward-looking and clearly interdisciplinary and creative side, offers both the renewal of older methods and proposals for methodological innovation, we believe that this anthology is an important addition, intended to be used as a handbook for both research and teaching. *Contemporary Methods in Ecocriticism* is an inventory as well as a handbook and a map. We wish to encourage a critical discussion of the methods that can be used in environmentally focused cultural and literary studies, although this anthology by no means exhausts the methodological possibilities within the field. The authors and their methods presented here come mainly from literary studies and represent different ecocritical specialities. Although more and more disciplines within the humanities have begun to pay attention to perspectives on sustainability, futures, and the environment as important aspects of theory and method, it is nevertheless our hope that the various approaches in this anthology can also inspire researchers, teachers, and students outside of literary studies.

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Chapter 1

Zooming Out to the Anthropocene

Björn Billing

In the sci-fi novel *Last and First Men: A Story of the Near and Far Future*, published in 1930, author Olaf Stapledon unfolds a wide panorama of human civilizations through the ages. In the beginning of chapter eleven, "Bird's-Eye View," the narrator announces a shift in perspective:

> Hitherto we have passed over time's fields at a fairly low altitude, making many detailed observations. Now we shall travel at greater height and with speed of a new order. We must therefore orientate ourselves within the wider horizon that opens around us; we must consider things from the astronomical rather than the human point of view. (Stapledon [1930] 2020, 189)

Stapledon let the expanding horizon represent a boundary, not only between the earth and the sky but also between a conventional way of viewing the world and an understanding based on entirely different scales, spatial as well as chronological. In some respects, this fictional mode of perception became a reality forty years later. The photographs from the American Apollo expeditions caused a sensation worldwide. This was particularly true for *The Blue Marble* (1972) (Figure 1.1), in which the Earth appears as a shimmering jewel set against a background of black velvet. A circle within a square: classic forms of beauty and perfection. The photograph has been used in a variety of contexts and has achieved the status of a "visiotype," that is, an image with the function of a stereotype. Planet Earth—this is what it looks like.

Have such holistic images also had an impact on our thinking, on how we perceive ourselves and our place in the world? The United Nations' report on environment and development *Our Common Future* (1987) argued that *The Blue Marble* had played a transformative role on par with the Copernican revolution. Globes and world atlases had, of course, existed before, but

Figure 1.1. Photograph AS17-148-22727, more commonly known as The Blue Marble, was taken from Apollo 17 in December 1972.
Source: NASA.

the photograph of the Earth taken from space was not a visualization of a theory: It reflected what someone had actually seen at a particular time. There was a human being behind the camera at that precise moment. With such paradigmatic weight and symbolism, it is no wonder that the Apollo images have been interpreted in radically different ways. Cultural geographer Denis Cosgrove (1984) identified two discourses in the reception of these photographs. In the discourse called "One World," *The Blue Marble* and similar representations are perceived within a modernist tradition that sees a humanity united by enlightenment, technology, and the ideology of progress. "One World" contrasts with the "Whole Earth" discourse, which instead views the images as conveying a fragile planet threatened by global environmental destruction. Both discourses share a holistic view in which

each detail becomes part of a larger pattern that emerges only when we move away from a subjective, human viewpoint and a geographically limited interpretive framework.

Both the photographs and their underlying technologies, as well as the history of their performative effects, are crucial elements of what environmental historian Sverker Sörlin (2017, passim) has referred to as the "production of the planetary," a process that established a new phase with the concept of the Anthropocene at the turn of the millennium. In brief, the Anthropocene denotes the geological epoch in the history of the Earth when humanity, or parts of it, has had a decisive transformative effect on the planet's crust, biosphere, and atmosphere. As a chronostratigraphic concept, the Anthropocene inscribes modern civilization into the deep time of geology. Different scales intertwine. The term itself, based on the Greek word *anthropos*, meaning human, indicates a collapse of the distinction between culture and nature. However, the idea of the "human epoch" in the chronology of the planet also challenges a range of other dichotomies that have structured Western thought since time immemorial, such as subject–object, artificial–organic, active agent–passive matter, and human–nonhuman.

Sörlin (2017, 63–64) has described the twenty-year history of the Anthropocene discourse as "a scientific and cultural supernova of a unique kind." Scholars have suggested a "planetary turn" and a "geological turn" in thinking. Such notions indicate profound epistemological and ontological claims in the Anthropocene discourse, and the debate about the concept has consequently been intense. However, this essay is not the place to map out all the positions, arguments, and disagreements within this discourse, which spans the natural sciences, the humanities, and the social sciences, as well as cultural criticism and the art world (Lewis and Maslin 2018; Sörlin 2017). The aim is instead to investigate the potential for ecocriticism in this kind of up-scaled thinking.

The planetary perspective, often represented by *The Blue Marble* and now frequently referred to in terms of the Anthropocene, has undeniably had a significant impact on literature, art, and film. How can ecocriticism approach the new themes and representations brought forth by this planetary perspective? What possibilities for cultural analysis have emerged? What challenges have arisen? In the following discussion, these questions will be addressed by highlighting some of the thinkers engaged in the Anthropocene discourse and exploring literary works connected to planetary themes. This will be followed by a brief overview of the Annales School of historiography, often invoked in this discourse, and then two experimental analyses in which scales are employed as an ecocritical method. The essay concludes with some reflections on the scientific and ethical aspects of the methodology of "zooming out."

IN THE REARVIEW MIRROR OF THE FUTURE

Today, many novels defy the conventional timeframes of fictional literature and instead experiment with millennia, using narratives that render individual characters, families, classes, and generations insignificant. These works incorporate more-than-human agency and address events extending from regional and national settings to the global context. Ecocritics speak of encyclopedic works, maximalist novels, and planetary literature (Clark 2015; Heise 2019; Mertens and Craps 2018; Trexler 2015). Others, such as Amitav Ghosh (2016), have expressed doubts regarding literature's ability to grasp the full extent of climate change. For Ghosh, the Anthropocene denotes a crisis of representation, a boundary of the capacity of the written word. He has speculated as to whether hybrid media forms might have greater potential to adequately capture the pressing issues of our time. Ghosh has further argued that the critical discourses in the humanities over the past few decades have been blind to the fundamental conditions that Earth systems represent for culture and society. In this regard, his analysis aligns with that of Dipesh Chakrabarty (2009), whose essay "The Climate of History: Four Theses" has been seminal in disseminating the Anthropocene concept beyond the natural sciences. According to Chakrabarty, postcolonial theory and Marxist analyses have not been able to address planetary environmental problems, partly because these problems involve temporal and spatial dimensions incompatible with conventional historiography and models for power analyses. The main challenge lies in the scales: the imperative of the Anthropocene to bring together human cultural history with the perspectives of ecology and geological deep time.

According to ecocritic Timothy Clark (2015), the challenging scales of the Anthropocene have sent shockwaves through traditional forms of cultural representation. He has speculated as to whether the Anthropocene may even be a threshold concept for our human imagination: Storytelling as we know it may need to be reinvented to be relevant in the era of climate change. Ursula Heise (2019) has also pondered the consequences of the scaling-up of imagination demanded by the Anthropocene, questioning what kind of literature may result and predicting the diminished significance of the traditional narrative of the novel and the emergence of new literary forms. However, she has pointed out that planetary, meta-humanist novels existed even before the notions of the Anthropocene and global literary studies, particularly in the form of science fiction. In sci-fi, the spatial boundaries are not limited to the local but often extend to the entire planet and even beyond, into astronomical space. The dramatis personae are not confined to interhuman relationships but decentralize human characters among species, machines, and cyborgs in

new hierarchies and flattened ontologies. Heise has further argued that this kind of science fiction can no longer be viewed as a distinct subgenre: "[T]he themes, tropes, and strategies of science fiction have increasingly migrated into mainstream fiction and into environmental nonfiction in recent years, and in a fiction conceit by inviting us to look at our present through the eyes of a future geologist studying the Earth's strata millions of years hence" (Heise 2019, 301).

Visual artists have also experimented with this kind of historicization, which was the theme of the exhibition *Ancient History of the Distant Future* in Pennsylvania, 2019–2020. Matthew Buckingham based his work *The Six Grandfathers, Paha Sapa, in the year 502,002 C.E.* on geological data when visualizing how the mountain known as Mount Rushmore will appear in the future. His photographic installation tells the history of the rock, spanning 66.5 million years and ending with the famous faces being eroded beyond recognition (Figure 1.2). A retrospective view from the future is also what the narrator undertakes in Stapledon's novel. In the preface, Stapledon emphasized that while the book is a work of fiction, it is fundamentally different from "ungoverned speculation for the sake of the marvellous." The modus operandi Stapledon prefers is instead a form of "controlled imagination" based on scientific knowledge. Stapledon himself consulted several researchers in preparation for his novel, which was intended to depict "the human race in its cosmic setting" (Stapledon [1930] 2020, iv).

Another example of historicization, written from an academic perspective, is the book-length essay *The Collapse of Western Civilization: A View from the Future* by Naomi Oreskes and Erik M. Conway (2014). Both authors are historians of science. The book serves as a pseudo-report in which a future historian provides a concise account of how modern civilization collapsed around the year 2093. Using the sober rhetoric of a researcher, it describes how the critical thresholds in the cryosphere were exceeded, sea levels rose, the global political landscape was reshaped, and new nations and political alliances were formed. Each chapter begins with a map showing flooded areas: Bangladesh, New York, the entire Netherlands, and so on. The fictional narrative is written on the 300th anniversary of these events, allowing for an understanding of the period from 1540 to 2093 as a relatively coherent unit within the millennia-long span of cultural history—the era of modernity, enlightenment, and capitalism. The book concludes with a "Lexicon of Archaic Terms." Most of the words refer to a positivist paradigm of knowledge that prevailed during this era, as well as ideas that compelled humans to perceive themselves as separate from nature.

The hybrid form of *The Collapse of Western Civilization* exemplifies Heise's claim. The Anthropocene, as a geological term, is in fact articulated in this intersection between science and fiction. The epoch is not a past stage

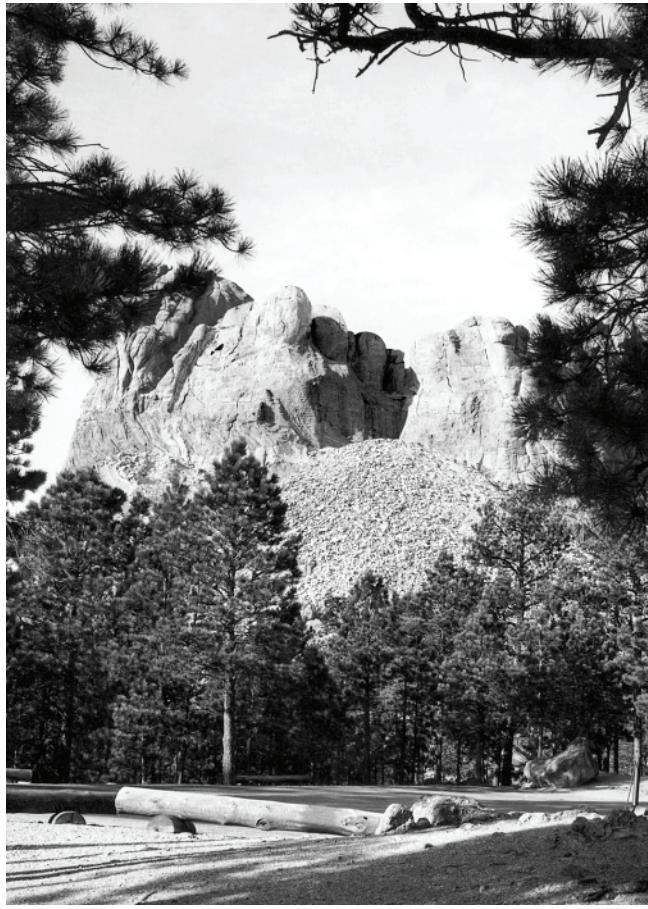

Figure 1.2. Matthew Buckingham, The Six Grandfathers, Paha Sapa, in the year 502,002 C.E. (2002). This is how Mount Rushmore may look after erosion has taken its toll for several hundred thousand years. The histories of culture and geology are intertwined in a speculation grounded in scientific knowledge.

Source: Reproduced by courtesy of the artist, Murray Guy, NY, and Daniel Marzona, Berlin.

in the history of the planet but an ongoing process that may only be retrospectively recognized as a distinct stratigraphic unit. The temporal principle of the Anthropocene is the future perfect tense. The premise is based on speculations about the present seen from a distant point in the future, thousands or millions of years from now. Geoscientists imagine a human studying the Earth from a hypothetical position, and sometimes an alien serves as a vicarious observer. Scientific models come close to the narratives of climate fiction, blurring the line between speculative and realistic literature (Garforth 2019). Oreskes and Conway adopted a global point of view; a regionally framed fiction that

otherwise shares this perspective is the novel *The Great Bay: Chronicles of the Collapse* by Dale Pendell (2010). The narrative core is constituted by a specific place and its gradual transformation. In twelve sections the story describes how California's Bay Area has been reshaped by climate change and how the conditions of life have changed for individuals, groups, and society, as well as describing the impact on flora and fauna. The chronology accelerates as the novel unfolds, moving from units of decades to centuries and then millennia. The story is told in the future perfect tense, and the book is constructed as archival material with newspaper clippings, interviews, and other historical documentation. The structure is systematic, and the table of contents resembles that of a report rather than of imaginative literature with suggestive chapter headings. Given the total time span of sixteen thousand years, it goes without saying that Pendell's book does not follow a classical dramatic structure. Even more breathtaking is Stapledon's time scale, spanning hundreds of millions of years both backward and forward in time.

An elaborate example of how narrative structure and epistemology interact in a genre borderland is Kim Stanley Robinson's *The Ministry for the Future* (2020). Robinson has distanced himself from fantasy literature in interviews and emphasized his ambition to ground his writing in science (Godell 2020). Oreskes and Conway were explicitly inspired by Robinson's earlier works when they wrote their essay. *The Ministry for the Future* begins in the 2020s when an extreme heat wave claims twenty million lives in India. The climate crisis intensifies, both practically and intellectually. The mass deaths meant "a tectonic shift in history, an earthquake in the head" (Robinson 2020, 380). The metaphor was not arbitrarily chosen: It merges geology with human history, integrating physical processes with thought and imagination. Concurrently with the catastrophe, an international "Ministry for the Future" is established. In the official description of the agency's task, the boundaries of modern politics are radically expanded: The Ministry's scope of action encompasses nothing less than the entire world, and its target group is all beings in the biosphere.

Robinson's book is a critical, philosophical novel about the state of the world in the eleventh hour of global warming. Fiction merges with mini essays on world economy, history, geoengineering, climate change, science, immigration, nature conservation, ideology, high-tech terrorism, and more. *The Ministry for the Future* includes characters and dialogue, but protagonists, isolated episodes, human actions, and relationships do not have central narrative functions. The totality is nonhierarchical, the structure is kaleidoscopic, and the reader is not faced with the conventional frameworks of society, interpersonal relationships, or history. Phenomena such as carbon dioxide levels, global average temperature, and sea level rise are given

prominent roles. Furthermore, Robinson explores multiple nonanthropocentric narrative positions. In a brief chapter, the narrative ego is a photon, an entity ontologically as complex as any character in a novel has ever been: It is a particle and/or a wave; it is infinitesimally small but with the universe as its arena. The photon moves at the speed of light, defining the speed of light. Four-dimensional, it defies our human capacity for perception. Emitted from the Sun, it creates life on our planet but can also incinerate it. From a distance, the photon/ego makes it possible, during a space journey, for a human eye to see the Earth as a sphere, and from an even greater distance, as a tiny blue dot. It is all about scale. The photon is microscopic and lacks mass, yet it possesses agency of literally astronomical proportions. One understands why Robinson (2009) has expressed his admiration for Stapledon.

MULTILAYERED CHRONOLOGY

The theme of scales is employed in a number of works of ecocritical relevance—narratives in words and images that converge in novel ways through what Gayatri Chakravorty Spivak has called "planetarity." Spivak (2003) distinguishes this concept from globalization, which refers to phenomena that function in relatively homogeneous forms worldwide, such as digital technology and financial economics. A similar distinction has been developed by Chakrabarty (2021, 68–92), who distinguishes between *earth*, *globe*, and *planet*. Planetarity is not a theme only to be found in works that deal with scales in which the local space of action and the chronology of human experience are transcended as obviously as in the examples given above. I will demonstrate how the method of "zooming out" can also reveal planetarity in other types of representations through two examples presented later in this text.

When humanities and social science scholars have discussed the Anthropocene, the concept of long-term history, *la longue durée* of the Annales School, has often been highlighted. For the ecocritic interested in studying planetarity, possibly but not necessarily in connection with the Anthropocene, the terminology of the Annales School can offer methodological possibilities. The name comes from the journal *Annales d'histoire économique et sociale*, established in 1929 (Burguière 2009; Lai 2000). The school, or movement, positioned itself in opposition to scientific specialization and disciplinary isolation, as well as to episodic and individual-centered historiography. The Annales historians developed analyses with long time perspectives and multiple temporal layers; they focused on problems rather than empirical data, employing multidisciplinary approaches and an attentiveness to material factors that we associate with the term "environment." In these general starting points and goals, there is an affinity with the

environmental humanities of today. Ferdinand Braudel's dissertation from 1949 on Mediterranean society and culture during the time of Philip II was decisive for the impact of the Annales School. In this work, Braudel layers history into three chronologies: First, there is the level of individual events and actions; second, the political and socio–economic level, with structures and processes that can extend over generations and even centuries; the third level is constituted by the slow-moving context of the natural environment, literally foundational for the other two levels of actions and events. This is geohistory. Braudel's dissertation pays attention not only to the sea itself but also to adjacent landscapes and ecologies. Geographical distances, communication, and geological and climatological factors become significant for cultural and social analysis.

These larger contexts and long-time perspectives shed new light on microhistorical events. Equally important as the concept of *longue durée* is understanding the relationships between the three levels, and for this, the Annales School argued, an interdisciplinary synthesis is needed. The approach is described in terms of integrated history (*histoire intégrale*) and total history (*histoire totale*). Another concept that could be explored in ecocritical analysis is "quasi-immobile history" (*histoire quasi-immobile*). It denotes periods when there are no decisive changes in a particular aspect, for example, no ecological or geological alterations. It can thus name historical continuity at one level, while significant transformations occur at other levels, either through occasional events or protracted processes. The sequence of events at these subordinate levels is called *histoire sérielle*, which can be translated as conjunctural history.

The impact of the Annales School over three generations is difficult to estimate but has undoubtedly been significant. The expansive field of world literature owes much to this historiography, as does the world-system analysis developed by American sociologist Immanuel Wallerstein in the mid-1970s. The Annales School's ambition to understand history not only through deep time but also through transcontinental space—global history (*histoire globale*) in Braudel's (1949) terms—has influenced several milestones of environmental history, such as Alfred Crosby's *The Columbian Exchange: Biological and Cultural Consequences of 1492* (1972). Undeniably, there are problems and limitations in the works of the Annales School, and several of their theoretical debates are now dated. Braudel's *longue durée* has been criticized for rendering people insignificant or, at worst, invisible in the large-scale panorama. Similar criticism can be found among opponents of the Anthropocene concept, who have argued that the idea of "humanity" (*anthropos*) is deceptively abstract and depoliticizing in light of fossil modernity and consumerism. In Braudel's study, the Spanish king and even the Spanish empire are reduced in significance: the main actor in history is instead the sea itself. Depending

on one's perspective, this can be seen as either a strength or weakness of Braudel's work. One of the contentious issues in modern environmentalism concerns the level from which we should view nature—the Anthropocene or bioregionalism? "There is no such thing as a local environmental problem," wrote Mitchell Thomashow, explicitly inspired by *The Blue Marble*; "[n]ever globalize a problem if it can possibly be dealt with locally," countered ecologist Garret Hardin, concluding that "globalism is usually counterproductive" (both quoted by Heise 2008, 37, 39, respectively).

This tension between the representation of the overview and the articulation of microhistorical detail reveals some of the paradoxes of scaling. The impact of an individual on the whole—the global climate, the geological compound of the planet, the biodiversity of the biosphere, and so on—is insignificant and untraceable. Yet it constitutes a component that makes the collective imprint of humanity both possible and real. The global cannot be localized anywhere and is simultaneously everywhere. A crowded train platform tells us as little about overpopulation as does a desolate mountain landscape. A thousand mosquito bites during a mountain hike is not a falsification of planetary insect depletion. As a sum total, the Anthropocene exists only on the Earth as a whole but not locally anywhere, other than as a mutually agreed-upon proxy according to geological criteria, the so-called golden spike. Along with the eco-philosopher Timothy Morton (2013), we can characterize the Anthropocene as the hyperobject *par excellence* (also see Erik van Ooijen's essay in this anthology). Everywhere and nowhere, concrete and elusive, manifested in individual experiences but only as the sum constituting an epoch spread over millennia—how could a literary or visual artwork possibly articulate something like that?

Clark (2015) views the scaling up from "environment" to the Anthropocene as a profound challenge for climate fiction. The mosaic, multilayered structure of Robinson's 2020 novel can be interpreted as a response to this challenge, as an attempt to strike a balance between the locally grounded and the globally dispersed. It should be noted that the Anthropocene implies not only scaling up and zooming out, with human culture emerging in inseparable connection with the slow processes of nature, but also the reverse: a geologically dramatic contraction of events such as the rapid increase in greenhouse gas levels in the atmosphere and accelerated species extinction. The Anthropocene encompasses both the diffusion of culture in planetary space/time and the compression of geology in modernity. It is during the post-war period that the statistical curves have risen particularly steeply in terms of both socioeconomic factors and Earth system parameters, and the term "the Great Acceleration," as used in environmental history, should be understood with this dual effect in mind (McNeill and Engelke 2014).

The historiography of the Annales School does not offer a clear-cut methodological solution to the problematics of zooming out, but one strength of its conceptual apparatus is that it allows for an understanding of time and historical change as multifaceted with different rhythms. Braudel's (1949) overarching framework of the time of events, the time of society, and the time of geohistory is a suitable starting point for analyzing temporality in various forms of fiction, particularly for readings of the kind of planetary literature that ecocritics have highlighted in connection with the Anthropocene (Clark 2015; Heise 2019; Mertens and Craps 2018; Trexler 2015). Even historically oriented ecocriticism, which in comparative approaches examines several works from different time periods and places, can use the terminology of the Annales School. It should be emphasized that *longue durée*—arguably a centerpiece of the conceptual apparatus—does not involve only the quantitative maneuver of expanding a timeframe but also has qualitative consequences in terms of understanding several aspects: first, periodicity and cycles; second, what constitutes significant events; third, the relationship between continuity and change; and, fourth, causality. When zooming out, one does not simply see more things—one sees different things (Figure 1.3). The following discussion will demonstrate what this might entail through two examples.

Figure 1.3. When zooming out, patterns, connections, and boundaries emerge that are not evident from a conventional, anthropocentric perspective, spatially as well as chronologically. This photograph, taken from the International Space Station (ISS), shows agricultural fields in the Russian Kursk region near the border with Ukraine.
Source: Earth Observatory/NASA.

THE TEXAS CHAIN SAW MASSACRE

The film *The Texas Chain Saw Massacre*, directed by Tobe Hooper, was released in theaters in 1974. It invites viewers to ecocritical analysis even in its opening sequence. A male narrator's voice warns of the horror that the story's youths experienced when "an idyllic summer afternoon drive became a nightmare." The story is thus implicitly situated historically and culturally. A road trip by car is a quintessentially American activity. Such a journey represents movement, convenience, technology, and progressive optimism, but car culture has since become a symbol of the fossil-fuelled modernity that threatens both American society and Western civilization at large. This collision between utopian ideology and dire reality is indirectly reflected in the film through several indicators, some of which are discussed below.

During the opening sequence of the film, forensic photographs of decomposed bodies are shown while a radio announcer's voice reports news about grave desecrations that have occurred in a small Texas community. We soon learn that it is a community where the slaughterhouse has been the main employer. The radio voice continues to report on other troubling news (a fire at an oil refinery, an ongoing cholera epidemic), while the viewer sees images of the seething surface of the sun and solar prominences. In close-up, these images of flowing movements and cascades resemble something organic, evoking associations with the flesh that is disintegrating as the corpses are exposed to the heat of the sun. The close-up solar activity is depicted in black and red. Then, there is a sudden cut to a black screen with a glowing yellow sun in the center. We see the same object from different perspectives as the imagery shifts from astronomical space to a viewpoint on Earth. However, the strange black sky turns the sun into something fundamentally different from what it is when seen against a blue sky: Here, it becomes an omen and a threat.

The next cut takes us from space to Earth, to the image of a dead armadillo on an asphalt road as traffic passes by. The armadillo, in this case the nine-banded armadillo, *Dasypus novemcinctus*, has symbolic connotations. During the Great Depression of the 1930s, it served as food and was called "the poor man's pork." Today, the nine-banded armadillo is the official mascot of Texas, the oil state. Global warming is likely to expand the habitat of *D. novemcinctus* northward. In the film, the dead armadillo is shown from a low, ground-level camera position. We do not see the world from an anthropocentric perspective but from the perspective of the armadillo, an animal that has already fallen victim to circumstances, whether the brutal force of a motor vehicle or heat and drought. The camera angle is maintained in the next scene, suggesting a world where humans do not have full control. This power

dynamic is underscored by an accident that occurs when a large truck roars very close past the youths, causing one of them to fall into the ditch in his wheelchair. The symbolism of this sequence is strong: the machine pushing aside the human and leaving behind a cloud of diesel fumes.

Sitting in a minibus, one person in the group complains about the unbearable heat, while another reads about the planets from an astrology book. This reading transports us back out to the solar system, a narrative maneuver that sets human conditions within the larger cosmic context—albeit through mythology. A counterpoint between confined rooms and expansive space is articulated in several scenes in the movie through a camera perspective featuring a low-placed horizon. In these images, an immense sky dominates the scene, and this impression is amplified by the flat landscape. The vastness sharply contrasts with the cramped space inside the minibus. By intercutting images from the slaughterhouse, the director draws a parallel between the humans and the cattle standing packed in their pens, awaiting their slaughter. This contrast between claustrophobic interiors and expansive outdoor scenes is a recurring motif in the film and can be interpreted as a metaphor for humanity's confinement within modern culture—more precisely, humanity trapped in toxic dependence on oil and meat.

Hooper actually got the idea for the film from an unexpected source: the Christmas shopping frenzy. The compulsive consumer culture that intruded every December through advertisements, shop windows, stores, and people's glittering homes appeared to Hooper as a nearly carnal orgy, unreal and repulsive (Bloom 2004). Viewed in light of the Anthropocene, *The Texas Chain Saw Massacre* conveys tensions within the entire paradigm of meat-eating, industrialism, car culture, and fossil fuels. The local events appear as symptoms or proxies of a global phenomenon.

In such an analysis, the blazing sun in the film's introduction becomes more than just a visual spectacle. The sun reappears several times as the horror story progresses, magnified in the center of the frame. The burning star attains agency as a meta-actor in an implied narrative that unfolds parallel to the human storyline. The heat is ever-present: images of dry landscapes, news reports of prolonged drought, people complaining about the high temperature, and scenes focusing on fire and glowing coals on a grill (where, of course, meat is being cooked). At one point, two individuals go to a river for a swim but find the riverbed completely dried up. As night falls, the moon takes the sun's place. The moon's disc appears as isolated as the sun, but the night offers no escape despite the temporary relief from the heat. In the darkness, a woman chased by a madman runs astray and gets trapped in the dense forest vegetation. Eventually, she manages to escape and hitchhikes on the back of a truck, while the pursuing serial killer swings his gasoline-powered chainsaw in the backlight of dawn. However, the comforting rays of the morning

sun are deceptive. The woman's night of terror may be over, but humanity's nightmare has only just begun.

There have been numerous analyses of *The Texas Chain Saw Massacre* discussing how the film reflects unemployment and industrialization in the American South. However, if the interpretation is not confined to what Clark (2015) has called "methodological nationalism," Hooper's film is relevant to conditions beyond the socioeconomic situation of the early 1970s in the United States. By zooming out, characters, human actions, and environmental depictions become pixels in a larger image. Details such as a dead armadillo, a dried-up river, and recurring photographs of celestial bodies take on new meanings when viewed from a planetary perspective. By activating scales, the local environment of the film can be related to the surrounding United States during a time of extreme drought and oil crisis and, by extension, to global contexts.

The *zeitgeist* of the film is not the progressive optimism of the 1950s but a situation that generates alienation and physical peril. The fact that the youths travel to the location where the horror story unfolds creates a subtle alienation effect: This place is not their immediate home, but it is still part of their homeland, their culture. In this Texas region, the slaughterhouse has been a focal point that has brought generations together, engendering cohesion that new technology and industrialization have dissolved. Modernization in this form becomes as destructive an element as the abnormal heat. Everyday life changes, traditions dissolve, death and violence multiply—it happens in the slaughterhouse and indirectly in the world of humans in this era of climate change. Furthermore, the timing of the story becomes important when the methodology of scales is applied. A subtext emerges from the fact that no fuel is available at the gas station where the youths stop to refuel. The film takes place on the threshold of the 1970s oil crisis (Figure 1.4). The sanctions imposed by the OPEC countries had deep consequences for the United States, both practically and in terms of its ideological hegemony.

The energy crisis meant that national economies became significantly globalized and interdependent at a time when awareness of aggregated environmental problems was increasing and taking organized forms. The first United Nations conference on the human environment, "Only One Earth," was held in Stockholm in 1972. That same year saw the publication of *The Limits to Growth* and *Blueprint for Survival*, among other important works discussing global environmental issues, including climate change. As mentioned above, 1972 is also the year when NASA released the photograph, *The Blue Marble*.

Consequently, here is a context that allows us to scale up the interpretive framework beyond the local and the national. If we zoom out from the violence in *The Texas Chain Saw Massacre*, we find ourselves in a crisis-stricken United States, and, at an even greater distance, in the tension between the

Figure 1.4. Signs stating "No Gas," "Pumps Closed," and "No Ice," and similar messages were a common sight at gas stations in the United States during the oil crisis of the 1970s, highlighting the connection between the local and global economies as well as planetary environmental concerns.
Source: Photo by David Falconer/Documerica. U.S. National Archives.

discourses of "One World" and "Whole Earth." American hegemony based on extractivism and technological–industrial expansion ("One World") stands in contrast to an emerging awareness of global environmental crises ("Whole Earth"). In light of this geopolitical context, it is symbolically significant that it is the youths' search for gasoline that leads them to the madman's house—into a vortex of unimaginable horror and forming a perfect metaphor for a literally fatal addiction to fossil fuel. The specific setting in Texas is a staging charged with symbolism.

The dead armadillo in the opening scene evokes the Great Depression of the 1930s, a historical parallel to the contemporary energy crisis paralyzing the United States, but the animal represents an even richer story. The nine-banded armadillo follows a trajectory in US economic history. The species migrated from South America and established itself in the southern United States during the decades of the oil boom around the turn of the twentieth century. It was during this time that Texas took its first steps from being a regional economy to becoming a dominant player in global modernization. In *The Texas Chain Saw Massacre*, there is a shortage of gasoline, an oil refinery is on fire, the sun burns the land and the people, and the news reports a cholera outbreak. The message in the horoscope about Saturn being

in an ominous retrograde motion, narrated by the surviving woman before her encounter with the chainsaw killer, becomes a metaphor for more proximate planetary conditions. The "idyllic summer afternoon drive" appears as the trajectory of modernity itself in the geological history of humankind.

DAS GROSSE GEHEGE BEI DRESDEN

In the first decades of the nineteenth century, German painter Caspar David Friedrich developed new strategies for depicting the spatial aspects of nature. Art historians have studied how he experimented with verticality and horizontality to represent the phenomenology of experiencing landscapes, particularly the sense of both proximity and extreme distance. Werner Hofmann sees in Friedrich's paintings an interplay between the familiar and a kind of "expectation of spatial transcendence" (*Jenseitserwartung*) (Hofmann 2000, passim). Traditionally, researchers have connected the new sense of space that Friedrich sought to visualize with the holistic and idealistic philosophy of nature in Romanticism. Is it also possible to consider these paintings' transcendental claims as a search for a planetary perspective? Situating a perceived place in a cosmic context is an act that can be traced in Friedrich's frequent depictions of celestial bodies, particularly the moon. In the darkness of night, attention is often directed away from the ground and toward the starry sky above the atmosphere. Unlike the sun, which we can directly observe for only brief moments during twilight, we can gaze at the moon for longer and clearly perceive it as a spherical body with an uneven surface. In this way, the moon can be viewed as a reflection of the Earth and as a celestial body in a solar system, similar to the Earth we inhabit. Friedrich often gives the viewer's gaze a centrifugal momentum through representing an elongated horizon. Furthermore, the placement of the horizon is low, so the sky and space take precedence.

One painting that has attracted particular attention in the Anthropocene discourse, from Bruno Latour among others, is *Das grosse Gehege bei Dresden*, a title that can be translated as "The Large Enclosed Field Near Dresden" (Latour 2017) (Figure 1.5). Hofmann (2000) has argued that Friedrich, in this painting from 1832, plays with morphological ambivalence that confuses the viewer. This is primarily achieved through the geometric figure on which the painting is based: a hyperbola, constructed as two arcs that converge toward the horizon of the painting in a sort of visual chiasmus. The composition thus forms an X lying on its side. However, the geometric principle of *Das grosse Gehege* has been applied not only two-dimensionally but in the depth dimension of space as well, by integrating the implied lower arc of the hyperbola with the forms in the foreground in a way that creates a convex impression.

Figure 1.5. Caspar David Friedrich, Das Große Gehege bei Dresden, 1832. Oil on canvas, 73.5 x 103 cm. Albertinum, Galerie Neue Meister, Gal.-Nr. 2197 © Albertinum | GNM, Staatliche Kunstsammlungen Dreden.

Hofmann has argued that, with this approach, Friedrich departs from the Euclidean space of perspective painting in favor of a kind of "pneumatic space" in which the ground seems to bulge toward the viewer while the sky bulges outward. The foreground thus suggests the Earth's spherical curvature.

The form of the hyperbola establishes a connection between the Earth and the atmosphere through a mimical relationship in which the lines of the ground mirror the curve of the clouds in the sky. Furthermore, the bluish patches of the cloud cover correspond to the puddles of water on the ground. The sun, which not only casts its yellow light across the sky but can also be glimpsed as a small disc just above the edge of the clouds, connects this terrestrial system with cosmic space. A unity is depicted that encompasses the three elements of the Earth, the atmosphere, and the solar system. The geometric composition brings these elements together while contrasting them to each other, with the bright sky contrasting to the dark-colored ground. Unity through contrast thus takes the form of a dynamic light–dark tension in conjunction with the dynamic form of the hyperbola. Hofmann (2000) finds the foreground of *Das grosse Gehege* to be mysterious, almost giving the impression of the topography of another planet. The shapes of the ground with its earth and water contribute to this, as well as the relative absence (in

the foreground) of vegetation or any other familiar references to living nature. The ambiguous scale strengthens the effect: If one considers only the foreground, this could just as well be a view from an airplane or, in a historically adequate context, a hot air balloon. We associate this kind of impression with nature's fractal patterns, that is, the recurrence of the same forms at different levels from the micro to the macro scale. The ambiguous and strange character of the foreground is enhanced by the position from which we observe the scene, enigmatically hovering above the ground. It is a nonanthropocentric viewing position, deviating from the Renaissance perspective's grounded subject with both feet on the ground and the human eye as the key to truthful observation.

In Latour's (2017) interpretation, the painting resists the idea that the Earth can be seen from any particular viewing point. "The Earth," just like "nature," in abstract singularity, cannot be represented in any absolute, definitive way: all perspectives and observation technologies must be regarded as deceptive, entangled in anthropocentric mediations (Latour 2017, 220–223, 254). This interpretation finds support in the way Friedrich has sought to eliminate himself as an authority through use of the hovering vantage point above the ground. This position places the viewer in a kind of elastic state. One is both drawn into the landscape and pushed away from it, according to Latour (2017): the object vanishes, and the image thus generates what Hofmann (2000) in turn called an "expectation of spatial transcendence." The specific place is here, but the Earth is both here and somewhere else. Using Chakrabarty's (2021) formulation, one can say that *Das grosse Gehege* expresses "the radical otherness of the planet" (87).

Not only space is represented in the painting. Time is also articulated on multiple levels. As is often the case with Friedrich, the course of human life is symbolized by a sailboat. The viewer probably does not immediately notice it as it subtly floats on the calm waters of the river in the dark foreground. Time in the form of nature's cycles is also present: day turning into night, summer passing into autumn—changes resulting from the rotation of the planet. If the sun had been placed exactly in the left–right centre of the composition, the scene would have conveyed a more static impression; however, with the sun positioned slightly to the left, the image suggests the movements of celestial bodies in relation to each other. The serenity of the scene and the subtle gradient in the sky emphasize the slowness of these cyclical movements. The boat will soon have passed—a human contingency in nature's cosmic primal scene. It is the timing of events in relation to the *histoire quasi-immobile*, to use Braudel's (1949) terminology. The focus on planetarity in this analysis also suggests that Braudelian geohistory could be complemented with an additional level that goes beyond the usual connotations of "environment," a level conducive to the Anthropocene with all its spatio-temporal implications.

According to Hofmann (2000), *Das grosse Gehege bei Dresden* is arguably the most complex spatial composition in Friedrich's oeuvre. The space is both concrete and, as Hofmann has noted, materially dissolved (*entmaterialisiert*). Put another way, the work constitutes one of Friedrich's most planetary landscape paintings. Seen in this way, the painting becomes a testimony from the period in history when geological consciousness began to establish itself in natural philosophy, situating the Earth and *Homo sapiens* within deep time. This is a theme that Friedrich demonstrably showed interest in, as is also evident in several of his other works. Some of these images were included in studies within the emerging theory of the historical essence of nonorganic nature, then called geognosy. This was not a specialized scientific discipline, and contemporary theories of the Earth's age and evolution involved profound reflections on humanity's place in the world. Goethe's essay *Über den Granit* (On Granite, 1784) is primarily an existential–philosophical contemplation. Another example is Comte de Buffon's *Les époques de la nature* (The Epochs of Nature, 1778), which, according to Sörlin (2017), was written in a way that makes the natural philosopher a prophetic thinker: "In Buffon, we encounter the historical, ethical, philosophical, and political questions that are being addressed in the Anthropocene debate of today" (78). By the time of Friedrich's painting, there were also theories of global climate and how the polar ice affects temperature and weather conditions in Europe—a ubiquitous topic in today's discourses on global warming and the Anthropocene (Carroll 2018). Zooming out, we can relate *Das grosse Gehege* to these contemporary and current contexts as a visualization on a higher level of abstraction than Friedrich's well-known paintings of mountains, cliffs, ice, and rocks. While the subject matter of *Das grosse Gehege* is not geological to the same obvious degree, it does evoke planetarity in a complex, suggestive way.

CREATIVE ANACHRONISM

The rough analyses of *The Texas Chain Saw Massacre* and *Das grosse Gehege bei Dresden* presented here have illustrated an interpretative approach based on scales and the idea of planetarity. The method of zooming out sheds an ecocritical light on certain details of the two works and allows new relevant contexts to emerge. One might ask: Aren't these interpretations at odds with the intentions of the artists? Isn't such an approach anachronistic? First and foremost, it is important to accept that the experiments with scales are detached from the artist's psychology and intentions, whether documented or only presumed. This remark goes beyond the traditional stance of literary criticism distancing itself from the intentional fallacy. This zooming out is not

primarily about disregarding psychological and biographical factors but represents a tentative attempt to transcend the human-centered epistemologies of the humanities. As Clark (2015) has suggested, the Anthropocene urges us to be receptive to "phenomena that are invisible at the normal levels of perception but only emerge as one changes the spatial or temporal scale at which the issues are framed" (22). These interpretations do not imply that Hooper or Friedrich anticipated a vision that teleologically culminates in the concept of the Anthropocene but rather allow us to view artworks of the past by means of new ecocritical inquiries.

Around the same time that the Annales School emerged, the German literary critic and philosopher Walter Benjamin ([1940] 1974) pointed out that historical time does not petrify the past in contrast to the flux of the present and the blank slate of the future. History does not constitute a fixed archive. New events, new knowledge, new technologies, and novel theoretical models allow the documents of yesterday to be reinterpreted and incorporated into alternative narratives. What was once considered pertinent can be marginalized by new social issues, and what has been forgotten may deserve to be unearthed and given a voice in unexpected contexts. The fact that a film like *The Texas Chain Saw Massacre* does not directly address environmental and climatic issues may actually make the film even more interesting from an ecocritical perspective. This film does not narrate the sudden natural disaster or post-apocalyptic existence but rather tendencies and indications of something that is slowly evolving. Isolated events can retrospectively appear as elements of an emerging pattern. Not until recently has the concept of the Anthropocene been employed in analyses of eco-horror, and some thinkers have suggested that horror, alongside science fiction, is a genre that might be particularly interesting in this context, since horror films and literature often symbolically stage socio-historical disruptions and processes of alienation (Dillon 2018).

As mentioned above, the Annales School and the *longue durée* are almost reflexively highlighted in the humanities and social sciences whenever the Anthropocene is mentioned. Ecocriticism that seeks to explore planetarity would benefit from the discussions that have taken place in historiography in recent decades, discussions that confront not only the scales of geology but also the "big data" of digitization with enormous amounts of text, statistics, images, sounds, and multimedia from all corners of the world. Zooming out has effects on time, space, and the quantity and nature of information. Among many other effects, the Anthropocene has become a theme in which human and natural sciences meet in new ways to problematize our chronological understanding (Bjornerud 2018; Thomas 2014).

A recurring reference in the historiographical debate that has emerged in the wake of the Anthropocene concept is *The History Manifesto* from 2014. In

that work, authors Jo Guldi and David Armitage have provided a summary of the debate—highly relevant to the ecocritic—and emphasized that the epistemological and societal issues of our time have a bearing on the potential of old theories. When Guldi and Armitage (2014) discuss the Annales School, they advocate for a renewed *longue durée*, not a museum-like reconstruction of a dated concept. One way to reactivate the *longue durée* is to work with scales in multiple senses—scales in plural, nota bene. As Chakrabarty (2021, 137) has written: "Zooming in and zooming out are about shuttling between different scales, perspectives, and different levels of abstraction. One level of abstraction does not cancel out the other or render it invalid."

Clark (2015), on the other hand, has argued for "creative anachronism," noting that the meaning of a historical text can never be finite or exhausted; rather, the production (or unveiling) of meaning is an ongoing negotiation. It is legitimate to read, say, *Hamlet* using Freudian concepts, even though psychoanalysis was not conceived during the time of Shakespeare. Neither in the object of analysis itself nor in the conditions of its production are there any predetermined limits to the layers of meaning that a retrospective reading can expose or to the concepts that can be employed in the analysis. Indeed, Clark (2015) has gone even further, arguing that "the cognitive and ethical claims of the Anthropocene underline just how deeply a text is *not* completely 'understood' by being resituated solely in the cultural context of its time of production" (65). According to such a view, creative anachronism entails an ethical demand to historicize differently. When focusing on planetarity, ecocritical historicization should be prepared to do so in ways that do not reinforce a traditional, humanistic preunderstanding. After all, zooming out with a camera lens does not make the photograph less realistic or relevant just because it deviates from our accustomed gaze.

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Chapter 2

Holistic Method as an Ecocritical Quest

Rikard Wingård

The world appears to most of us in the form of a set of clearly definable and separated objects. A frog leaps into a pond in which reeds grow that sway in the wind. The fact that we experience something as independent of something else or of ourselves does not necessarily mean, of course, that these things exist independently of each other. The way we distinguish one object from another or from a surrounding background, and thus separate that object from other objects, is not done automatically and objectively. The implications of quantum physics and the theory of relativity, at least in the interpretation that theoretical physicist David Bohm (1917–1992) has suggested, are that the world cannot be constituted by separate objects that exist independently of each other. Behind the object that appears in front of us lies what Bohm terms an implicate order that constitutes the explicate order that we experience. Bohm tries to visualize this through the image of waveforms, for instance vortices in a stream. The vortices represent (at a specific moment) stable patterns in the flow of the water. Even if we can see the vortices, they are nothing more than abstractions created by our perception and mind, which makes them stand out (the explicate order). The vortices are, in reality, flow patterns that belong to the stream as a whole (the implicate order) and are not autonomous objects that exist independently. Bohm insists that the entire universe must be comprehended in this way—as an indivisible, connected whole that is in constant change, like the water. In short, Bohm defines this as "undivided Wholeness in Flowing Movement," or with an even shorter term, "holomovement" (2002, 14). The implicate order can be understood only through the indications the holomovement gives us in the explicate forms that we, for instance in the form of objects, abstract from it. The forms can,

at most, have a limited and relative independence and stability in the flow, but they are still completely determined by it. Neither can our mind constitute itself as something that is independent of other matter (Bohm 2002, 11–15; see also, for example, Bohm and Hiley 1993; Pylkkänen 2007). This is important to keep in mind later in this article, when different kinds of "objects" are discussed.

In the following, I will try to adapt the holistic view, which Bohm endorses, in order to investigate what such holism could mean for ecocritical methodology. Instead of developing the holistic perspective in quantum mechanical terms, however, the discussion will foremost depend on phenomenology and hermeneutics. Even though the latter perspectives are not easy to understand, they are probably (hopefully) a little less difficult for a scholarly reader within the humanities to comprehend compared to the advanced mathematical formulas that accompany quantum theories. This shift from physics to philosophy is enabled by the philosopher and former student of Bohm, Henri Bortoft (1938–2012), who has shown how the development of phenomenology and hermeneutics during the twentieth century has paralleled in many ways the development of quantum physics. My investigation will eventually lead us even further back in time to Johann Wolfgang von Goethe (1749–1832), whose scientific method might be said to precede the ideas of both twentieth century continental philosophy and quantum physics. But let us start by looking at David Bohm's theories in relation to the major focus on the explicate order, that is, the tendency to view all things as separate objects, in which much of modern science and Western culture at large are entrenched.

OBJECT THINKING

The Danish biochemist and biosemiotician Jesper Hoffmeyer (1942–2019) has suggested that Hamlet's classic line, "to be or not to be," reflects a fundamental and revolutionary insight in the history of humankind: questioning whether one ought to be or not implies a separation of oneself from the world, because it is only possible to ask that question if you experience yourself as something that exists in relation to something that doesn't exist. Shakespeare's play thus gives the self as an independent individual one of its most striking expressions: The fact that I am something in myself must mean that there are other things outside of me that also are something in themselves. This new kind of self-consciousness and fragmented view of existence that emerged during the Renaissance might be said to be two of the foundations of the development of modern science, which postulates that truth is reached through (supposedly independent) observers that observe (from the observers supposedly independent) objects (Hoffmeyer 1976, 7–8).

There already existed, certainly, much earlier some sort of feeling of separateness from the environment. For instance, in Hesiod's Works and Days from the eight or seventh century BC we find a longing to return to a distant golden age, where humans and nature were imagined to be closer. It is nonetheless apparent how the cultural and scientific development from the Renaissance onward has led to an ever-increasing and thorough fragmentation of the world. The scientific ideal of objectivity, which we inherited from the seventeenth century, distinguishes between more and more objects or phenomena, which become defined (as something in themselves) and classified. This objectification also leads to abstraction; through our inclination to systematize what we observe, to find universal laws and annihilate differences, the objects are estranged and transformed into ideal abstractions. You can never, for instance, find the flower that you see depicted in a botanical field guide. The drawing is only an attempt at generalization through reducing the variations in different flowers from the same species to their lowest common denominators.

Such partitioning and generalizing are to some degree necessary for the mind to be able to handle current tasks without becoming caught up in a net of relations and connections that have little to do with the matter at hand. But the separation of things is, as David Bohm stresses, only a way of thinking about things, which can be useful in "practical, technical and functional activities" (2002, 3). It does not necessarily say anything about reality itself. When this way of thinking is extended to apply to humans themselves and the whole world, it ceases to be a practical tool in certain contexts and turns into epistemology. We start to experience the world as consisting of separate entities—all the way down to the atom-and-particle level. Today it is blatantly clear that this fragmented view, which falsely disconnects the human from the rest of the world, has caused severe problems that in the form of, for instance, global warming or mass extinction threaten human existence and the world as we know it. Because of our habit of seeing the world as a collection of independent objects, the ulterior, implicate, order evades us. Our actions thus continually create side effects we have not accounted for, and usually these effects are undesirable (Bohm 2002, 1–3).

Nonetheless, a fragmented way of thinking continues to dominate (Western) culture, in part because it is very difficult not to perceive what we think as a correct description of reality.

"Since our thought is pervaded with differences and distinctions, it follows that such a habit leads us to look on these as real divisions, so that the world is then seen and experienced as actually broken up into fragments," Bohm argues (2002, 4). If an individual—Hamlet, for instance—sees himself as essentially disconnected from other objects, he will have a hard time

thinking about his place in the bigger picture, where his needs might be subordinate to or must be balanced against the needs of the greater whole.

As Bohm, with support from the theory of relativity and quantum physics, has pointed out (as have many others both before and after him), we can no longer sustain the atomistic, mechanistic, reductionistic, object-centered science that was developed by scholars and scientists like John Locke, René Descartes, and Isaac Newton (2002, 5–7, 141–46). This is also true for the scientific method that rests on its fragmentizing idea. For example, Bohm gives prominence to the fact that an atom from the perspective of quantum theory is not in any way a stable, predictable entity. An atom can, at best, be viewed as "a poorly defined cloud, dependent for its particular form on the whole environment, including the observing instrument." The separation between the observer and the observed, which is fundamental for the scientific method, falls apart, and the two poles merge into each other as aspects of a whole, which, according to Bohm, is indivisible and impossible to analyze (2002, 12).

Undeniably, the scientific method works very well for certain types of research, such as when it comes to the "practical, technical and functional activities" that Bohm talks of. This is especially true in relation to mechanistic systems, which the method can analyze and establish reliable laws for, and which in turn can be used to manipulate the systems to produce expected results. But the cosmos is not constructed as a mechanical clockwork, as Descartes asserted, least of all the organisms that inhabit it. Few researchers today, however, would claim that they produce knowledge in the form of true, indisputable facts. The scientific method is instead about continually making approximations. Through the dialectic character of the method—which makes observations that are turned into hypotheses that in turn are verified or falsified against new observations—the description of reality can continually be adjusted into even narrower circles, but it can never in any definitive sense claim to have a complete correspondence with reality (Capra 2014, 2–3). Despite such reservations, it is still obvious how our object thinking takes us in the wrong direction when it comes to solving the problems that exist. As soon as we think we have found a solution in one area, we find that the same solution creates problems in another area. "Epistemological error is all right, it's fine," says Gregory Bateson, "up to the point at which you create around yourself a universe in which that error becomes immanent in monstrous changes of the universe that you have created and now try to live in" (1972, 485).

If object thinking can be seen as one of the deepest and most fundamental causes of our ecological crisis, it is imperative to establish and to learn to practice another kind of thinking that perhaps cannot replace the predominant object thinking but balances it. From a methodological point of view,

ecocriticism should, therefore, not just be critical of scientific methods that enhance the dominance of current thinking but should also look at itself. If the methods used by ecocritics in literary or other types of analysis are founded on object thinking, the results of that analysis are of little value. They only contribute to a further fragmentation and abstraction of the world. When Hamlet pretends to be mad, the unsuspecting Polonius remarks that "[t]hough this be madness, yet there is method in't." In the present case we must realize that there can also be madness in the method.

In the following section, we will not, therefore, be searching for a method that can primarily be helpful by shedding light on specific content or certain themes in literary works that may be of interest to the ecocritical community; nor are we searching for a method that can be adapted to transform ecocritical theory into practical analysis. What we will be looking for is a method in which the method is the ecocriticism. The method is, so to speak, its own aim and not just a means to reach a goal outside of the method. The method itself thus becomes a critique of object thinking and its methods, which indirectly cause severe disruptions to existing ecological systems.

We will take a closer look at a method with the potential to be such a corrective: "delicate empiricism," developed by Johann Wolfgang von Goethe. To comprehend this method and its relevance to ecocritical practice, however, we must first know something about the opposite of object thinking, something we might call holistic thinking, "living thinking" (Holdrege 2013, 32–36) or "dynamic thinking" (Bortoft 2012), as it has also been called.

HOLISTIC THINKING

An alternative to seeing the world as made up of parts, predefined objects, and static conditions is, as previously suggested, to think with wholeness and dynamic movement in mind. This is not as easy to do as we might imagine, though. Erland Lagerroth, for instance, was a Swedish literary studies scholar who advocated early on that the methodology used to analyze literary works must be focused on wholeness and process:

> If one disregards the traditional research, dedicated to the history of the origin of the works, what conditioned them, it can be said that literary research in different ways systematises the literary works, their content and form. Stylistics systematises based on grammatical and rhetorical categories; idea analysis on patterns in the history of ideas; the comparative and motif historical research on several other categories, and so on. Marxist studies analyse the works along Marxist thought lines, psychoanalytic along psychoanalytical, structuralist along structuralistical, which in all three cases implies that they are placed in

> some kind of larger historical or systematic context that does not emanate from themselves.[1] (Lagerroth 1982, 102)

The same criticism can of course be made of other fields in the discipline, including the ecocritical field. They are all interested in one or several parts of the whole of a literary work according to an abstract system that does not belong to the work itself. A gender-related study, for example, will take into account only those things in a literary work that are brought to the fore by the theory it uses. If a critical school aims to read against the work (what has been called, to use a termed inspired by Paul Ricoeur, a "hermeneutics of suspicion"), Lagerroth wants to read with it. In this respect he could be said to have been an early pioneer of the post-critical movement launched recently by scholars like Rita Felski and Toril Moi, who also strive to understand literary works based on the premises of the literary works themselves rather than a predefined theory (Ricoeur 1970, 32; Felski 2008; Felski 2015; Moi 2017).

Lagerroth tried to develop methods or rather models of thought, as he calls them, to supersede the partial view of a literary work so as to be able to study it as a whole. In *Romanen i din hand* (The Novel in Your Hand), from 1976, he presents his suggestions for how to proceed. In this regard he adopts a hermeneutical point of view, partly inspired by phenomenology. These points of departure contain nothing new for the trained literary scholar of today: The interpretation takes place in an eternal hermeneutic circular movement between the parts and the whole, where the scholar is trying to grasp the whole, which is the meaning of the work, by correlating it to the parts and vice versa; the interpretation depends on the interpreter's own historical constitution and conditions, and so on. Even if several of the thought models for studying the novel as process and world, which Lagerroth proposes and uses in exemplary readings, are valuable, one still cannot say that he has completely left object thinking and moved into a holistic mode of thought.

This is apparent in his view of the literary work's meaning, as well as in other aspects of his work. The constant oscillation between the whole of the work and its parts, which takes place in the interpretation, leads the interpreter, according to Lagerroth, toward the "ever more precise perception of the work's meaning," but, he continues, "the absolute truth we can never reach (or at least never can be sure to have reached [. . .])" (1976, 92–93).[2] Just as in the natural sciences, truth is always an approximation (Ibid., 100–105). Herein lies the classic question concerning where the meaning of the work is located. From Luther's writings until the first half of the twentieth century, there was a relatively wide consensus the meaning of the work was the meaning intended by the author (Olson 1994, 148–57). The difficulty of discovering what the author actually meant led to the meaning being situated in the work itself (Lagerroth's position), but in postmodernity

it was transferred to the reader, that is, any absolute and static meaning cannot exist but is created by each individual reader at each individual reading. The main phalanxes have thus consisted of an objectivist view (meaning is something [relatively] independent) and a relativistic one (meaning does not exist outside the interpreter). Lagerroth maintains an object-oriented view of meaning, despite his reservations about the interpreter's participation in the interpretation. It is out there as a given, separate entity against which we can correlate our interpretations, although we can never be sure how close to the "true" meaning the interpretation is. The problem, however, is that the relativistic approach does not lead to a holistic understanding either. If the meaning is located in the subject, the separation between subject and object remains.

The shortcoming here lies in an insufficient understanding of what really constitutes a whole. A whole is not, in fact, something made up of parts that together form the whole. The parts do not, so to speak, point to the whole and the whole to the parts. Instead, as quantum physics argues, the whole is always present in the parts and the parts in the whole. A concrete example can be experienced by looking up at the night sky. The stars you see are visible because of the light that emanates from them, which has travelled through space to enter your pupils. This means that the entire sky and its countless visible celestial bodies are contained in the very light particles that penetrate your eyes. A different person can see the same sky from a completely different place at the same time. All stars are thus present in all light. If we were light, we would, in the words of Henri Bortoft, be in a strange state regarding our logical thinking, where "here is everywhere and everywhere is here. The night sky is a 'space' which is one whole, enfolded in an infinite number of points and yet including all within itself" (1996, 5; see also Bohm 2002, 187–188). Or, to express it differently, "every particle consists of all other particles" (Capra 1975, 313, quoted in Bortoft 1996, 6). This is true of light as well as matter, throughout the universe, at the macroscopic as well as the microscopic level (Ibid.).

To transfer this insight to the literary work and its meaning, we need to return to the hermeneutic circle, but from a different direction. The danger here is seeing the circle as a circular movement or dissolving the circle into an oscillation between parts and whole. As I have previously stated, the parts already exist in the whole and the whole in the parts, and no such oscillation between the two aspects is possible. Instead, the dynamic exists on another level, before the moment when we perceive the text. Next, with Bortoft's help, we need to look at the circle from a phenomenological perspective.

PHENOMENOLOGICAL HERMENEUTICS

Henri Bortoft devoted his life to understanding wholeness, a concept he first became interested in when studying under David Bohm in the 1960s with the then new technology of producing holograms. Just like a photograph, a hologram is an image of something, but unlike a photograph, which only records light at a large number of points, a hologram forms a three-dimensional reconstruction of what 's depicted. What is interesting about a hologram is that the whole image is present in all parts of it. If a hologram is broken into two or more parts, each part will still display the entire image, albeit more diffusely the smaller the pieces become. A hologram thus exhibits in a concrete and visible way the same relationship that is present in all true wholes: the parts in the whole and the whole in the parts (Bortoft 1996, 4–5). Bortoft was constantly looking for more opportunities to study wholes and found another example in language and written text.

To understand how a text works as a whole, we must first realize that the text is not there, on the paper, as an objective thing, any more than eddies in the water flow. If you look at a so-called emergent image, consisting of what looks like randomized black and white spots but containing a "hidden" image, you can probably be categorized as belonging to one of three groups of viewers. (For examples of such emergent images see Porter 1954, 550–551; Bortoft 1996, 50.) Those in the first group can immediately see what the picture represents. Those in the second group can see only a mass of randomly organized and shaped black and white spots at first, but after a moment, in a sudden "aha" of realisation, something emerges from the picture. If you belong to the third group, unfortunately you may never be able to see the image. What does a picture like this show? It shows that we do not depend only on our sense impressions for our understanding of the world, which is the starting point of empiricism. When we look at the picture, the impressions our senses give us is the same whether or not we can see what it represents. The image's pattern is registered on the retina in the same way in both cases. What is different in the two cases is that in the former case there is an organizing principle, which means that a certain constellation of black and white spots forms in the image and gives it meaning. So, to see something as something, it is not enough to just see it. It also requires an organizing principle that makes what is seen mean something, i.e., appear as something meaningful. What we mean by seeing in everyday speech thus requires two things: a visual impression mediated by the seen object and an organizing, cognitive principle on the part of the receiving party. Seeing is in this way an active creation and not a passive reception of an objective world. But what is seen is not a product of our imagination that is totally subjective. We still

see something. But this something only comes to life in the dynamic act, in seeing. This act is so automated that we don't notice it except in cases like looking at an emergent image, where the seeing is obstructed in one way or another. Only then can we become aware that the object is in the subject and the subject is in the object and that they are thus not separated but form a unity (Bortoft 1996, 49–57). Psychiatrist Ian McGilchrist expresses it well when he says,"[W]e neither discover an objective reality nor invent a subjective reality, but that there is a process of responsive evocation, the world 'calling forth' something in me that in turn 'calls forth' something in the world" (McGilchrist 2009, 133, quoted in Bortoft 2012, 25).

Thus, when someone speaks of what appears, this refers not to a thing but to an event, the appearance itself, since nothing can appear without an appearance. It is only in retrospect that we perceive that it is a thing that appears when in fact it is the appearance of the thing that appears. Hamlet's question, from this perspective, should instead be "to appear or not to appear," because that is how something comes into being and can exist as a perceived separate and isolated object. Consequently, for something to appear, it must also be seen or in some other way sensed. It cannot first appear and then be seen; the appearance is the seeing and the seeing the appearance. It is not two events but one (Bortoft 2012, 94–97), just as "every particle consists of all other particles."

When we read, we often come across passages of text or entire works that, despite the fact that we are able to read what is written, confuse us or appear completely incomprehensible. With the right organizing principle, however, passages of text can suddenly light up, something that Martin Heidegger called *die Lichtung* ("the clearing"), and we see, that is, experience, the meaning. When we read and meaning emerges, the same process happens that occurs when we look at the image in figure 1. What emerges emerges because it means something. Just as in relation to the image, we need to focus not only on meaning as a noun but also as a verb, an activity—as meaning. Meaning is the appearance of meaning. But just as something cannot appear without being seen or be seen without appearing, meaning cannot mean without being understood and cannot be understood without meaning. It is the same event. No meaning exists outside of understanding and no understanding exists outside of the meaning (Bortoft 2012, 99–101).

But what can we draw from all this? Our conclusion should be that meaning is primarily not an object but an event (meaning/understanding), an act that excludes a separation between subject and object. The meaning arises when the text tells us something. It is a participatory act, not an approach to or a distancing from an external meaning or an isolated subjective preoccupation. The text has a potential to mean, but this potential is actualized only when the reader and the text come together in meaning/understanding, that

is, when the reader lets go of the meaning as a finished object. The potential, however, must not be understood as a kind of storehouse of ready-made meanings waiting to be released. The meaning/understanding takes place through an actualization of a potential, which always remains a potential (Bortoft 2012, 101, 107–113, 116 –117).

This also means that a literary work cannot be seen as an object that exists before it appears. The reading of the work is the appearance of it, and since each reading is also an interpretation, and thus an act of meaning/understanding, it follows that we can say the work is equal to the infinite possibility of meaning that is its potential.

Through this ceaseless meaning in understanding, the work constantly renews itself yet remains the same. This may seem paradoxical from an object-thinking perspective but is perfectly natural if we think of the work as something organic rather than mechanical. In horticulture, for example, it is common practice to take cuttings, which involves cutting off part of a plant and sticking it into some soil, where it takes root and forms a new plant. But in actuality, it is the same plant, a clone, that grows. It will not have exactly the same shape and appearance as the first plant but must still be considered the same. So now we have two plants that are one plant but at the same time two. However, we cannot find this one as an object. We can call the first plant the mother plant, but that only denotes the different stage of development of each plant. This one which is many is the whole; it has taken two different forms yet remains itself.

The hologram shows the same thing when it is divided into parts, and Bortoft argues that the same is true of a (literary) work. Through its self-differentiation in each meaning/understanding of the text, the work is one but different. You might say it is similar to the god Proteus, who appears in innumerable forms but nevertheless remains himself. It is through meaning/understanding (which is the same event) that these forms take shape. Just as the plant responds based on its potential in relation to the environment in which it is growing and assuming a unique shape and form, the literary work responds to the (mental) environment the reader offers the work. Just like an organism, the work is never "finished" but is in a constant state of becoming (Bortoft 2012, 71–76, 109–21). Alongside Bohm, we could say that the meanings (as objects) that appear are only expressions of the underlying holo-movement, the dynamic potential for meaning, which is the work.

In other words, the hermeneutic circle is not a circle in the sense that it describes a process in which the interpreter moves toward a specific goal, as, for example, Lagerroth would have it. What the circle describes instead is a precisely circular argument that appears to be an insoluble paradox to logical object thinking: to understand the whole, we must understand the parts, and to understand the parts, we must understand the whole. It is only when we

realize that the whole is in the parts, that is, the meaning is in the words of the text, like the stars are in the light, that the paradox ceases and we, as Bortoft says, can get rid of all "dialectical leaps" between parts and whole as well as "pre-understanding" as a prerequisite for understanding, "or any of the other logical tricks which have been introduced to support linearity tacitly whilst explicitly proclaiming to avoid it" (1971, 6).

HOLISTIC METHOD

How, then, by which method can we get in touch with the totality of a literary text, the totality that is the work's meaning, its potential? Here the philosophers and theoreticians become less precise. Hans-Georg Gadamer, for example, on whom Bortoft, alongside Heidegger and Wittgenstein, relies heavily in his interpretation of hermeneutics, is very suspicious of method. The two words in the title of his main work, *Truth and Method*, constitute a dichotomy for Gadamer which is difficult to bridge. The truths contained within art cannot, Gadamer believes, be uncovered through a particular method, especially not a scientific method, nor through hermeneutic methods based on meaning as a tangible object. "Applying method is what the person does who never finds out anything new, who never brings to light an interpretation that has revelatory power. No, it is not their mastery of methods but their hermeneutical imagination that distinguishes truly productive researchers," Gadamer writes (2001, 41–42).

However, the answer cannot be that it is just to read and that the whole will thereby unfailingly reveal itself automatically. As we have seen, in Gadamer's and Bortoft's hermeneutics, there is no unhindered relativism, where everyone is free to create their own meaning. The work will definitely mean different things to different readers, but these meanings are the result of the inexhaustible potential for interpretations, which is the work, and which for the receptive reader flow from the work itself. Bortoft writes that "the actualising of meaning (i.e. meaning) occurs in the reader. But this certainly does not make it just subjective, i.e., something which belongs only to the subject, since clearly it is the meaning itself which actualises in the reader" (2012, 104; italics in original).

To understand the work in its entirety (as opposed to the totality of the work, i.e., the sum of all the text), to experience the work in its active meaning and not in the finished meaning, as a finished object, thus requires certain things from the reader, and this is where we can start searching for a method. It is not a method for the actual interpretation of the text, though. Such a method would, as Gadamer implies, risk dominating the work's potential for meaning and directing the interpreter's gaze in circles that are too narrow,

such as in the case of the aforementioned hermeneutics of suspicion. Every method for the interpretation of the individual work must, where appropriate, be formulated and implemented based on what the work itself prescribes. The method I'm looking for here is, instead, a method that disposes of object thinking and enables the holistic thinking that is the prerequisite for being able to understand the work as a dynamic whole. In this article, the rudiments of such a method or methods can be made only as indications and tentative suggestions, but can hopefully stimulate further research, discussion, and practical trials.

To adapt the holistic interpretive framework, which Bortoft describes, we must first avoid what I have called in another context an assimilative type of reading, which means that the reader transforms what is foreign in the text into their own, already known, concepts so that no new understanding can arise. It is also not feasible to pursue a colonizing type of reading, where the text is used for one's own purposes or in a very fragmented way. Admittedly, this does not restrict the meaning to what is already known, but it only builds on the knowledge the reader already has. Knowledge expands, but it does not fundamentally change, as can happen when we encounter something truly new (Wingård 2011, 189–243; Bortoft 2012, 105–106). Rita Felski, in a similar vein, writes, "To define literature as ideology is to have decided ahead of time that literary works can be objects of knowledge but never sources of knowledge" (2008, 7). If we can evade that way of defining literature, however, we must also avoid approaching the text with all kinds of ideas about it having a fixed meaning or that the meaning is totally subjective.

Thus far, we have defined our method in negative terms, but to experience the work in its meaning and thus its meaning not as an object but as a movement, an event, the reader is required to open up to the text. A hermeneutic turn can then take place in which the participatory understanding of the work becomes a non-subject-centered event. We find ourselves addressed by the text in the sense that it "speaks to us." The phenomenologist Richard Palmer puts it succinctly:

> The combination of phainesthai and logos, then, as phenomenology means letting things become manifest as what they are, without forcing our own categories on them. It means a reversal of direction from that one is accustomed to: it is not we who point to things; rather, things show themselves to us. This is not to suggest some primitive animism but the recognition that the very essence of true understanding is that of being led by the power of the thing to manifest itself [. . .] Phenomenology is a means of being led by the phenomenon through a way of access genuinely belonging to it. [. . .] Such a method would be of highest significance to hermeneutical theory, since it implies that interpretation [understanding] is not grounded in human consciousness and human categories

> but in the manifestness of the thing encountered, the reality that comes to meet us. (Palmer 1969, 128, quoted in Bortoft 2012, 105)

Ideally, the reader is addressed by the work and transformed by it instead of transforming it themselves, based on their own purposes. Our knowledge is neither consolidated nor expanded in such an experience but is transformed. Many people at some point may have felt such a transformative experience, an epiphany of sorts. But the question remains: how can such an openness to the work be achieved?. Bortoft does not give many directives, other than trying to lead his readers into dynamic thinking in general with repetitive examples and explanations. He also believes, in agreement with Gadamer, that such a reversal of the hermeneutic process, where we experience the work almost interpreting us instead of the other way around, usually begins as a misunderstanding on the part of the reader. We feel that we do not understand the text, or, rather, that the understanding we already have is insufficient. "[W]e have to become open to the text," Bortoft writes, "and this openness becomes possible as a consequence of the experience of failing to understand" (2012, 107).

A more thorough model or method for approaching the literary work on its own terms does not emanate from Bortoft or from Gadamer, who, like Bortoft, says only that successful understanding always begins with a question—not from the reader but from the work. The work asks us something, and hearing this question is the first step toward real understanding. Finding the question or questions, Gadamer says, "is itself an art, no, an ability which has its own rationality" (1992, 45). As noted previously, the method keeps evading us.

To find a methodical way to open ourselves up to the whole of the work, it seems that we have to look outside the domains of literary hermeneutics. Within phenomenological literary criticism, especially within the so-called Geneva School in the 1950s and 1960s, we can to some extent find a methodological discussion and a practice that is possible to extrapolate into a method. But this method, based on Edmunds Husserl's concept epoché, including a significant purification that the reader must undergo to comprehend the phenomenon, does not take us much further than what has already been said earlier in this article. Furthermore, the Geneva School also started from the idea that a work contains a meaning, which it is the interpreter's task to find (Magliola 1977, 38–56; Holub 1995, 311).

Bortoft, once again, puts us on the trail through his interest in Goethe's scientific method. Johann Wolfgang von Goethe is of course best known today for his works of fiction, but he saw himself first and foremost as a scientist. He engaged in an extensive level of scientific activity during his life, studying plants, animals, minerals, and other natural phenomena. Not least, he

received a lot of attention for his studies of the color spectra of light, as they went against Newton's discoveries regarding the same phenomenon (Steuer 2002, 160–161; Sepper 1988, 1–9).

Goethe's scientific method, however, developed in a different direction than the common scientific methods at the time, and would today, as Bortoft emphasizes, be described as phenomenological and hermeneutic with a clear focus on the type of wholes that have been described in this article. Instead of considering the phenomena from the outside, as finished objects, Goethe tried, through an organic, participatory act, to enter into them, into their parts, to follow the objects, completed by the mind, back to their origin in the appearance (Bortoft 1996, 18–23).

He called this a "delicate empiricism" (*zarte Empirie*), a method, which in modern times has been developed and formalized by Jochen Bockemühl (1928–2020) among others. It contains five phases—four if the first one is viewed only as preparatory, as Bockemühl does. (In what follows, I largely follow the method outlined in Hoffman [1998: 130–136]; but see also, for example, Heinemann [1934]; Holdrege [2005]; ibid. [2014]; and Bortoft [1996: 247–289]. The most coherent presentation of his method, which Goethe himself produced, can be found in the essay "Der Versuch als Vermittler von Objekt und Subjekt" ["The Experiment as Mediator Between Object and Subject"], written in 1792 but first published, slightly altered, in 1823 [Goethe 1981, 10–20; English translation in Goethe 1995, 11–17].)

The first methodical step is a preliminary preparation. It partly includes what has already been said about trying to put aside one's preconceived notions in one's first approach to the phenomenon. Not infrequently, in Goethe's case, this phenomenon was a plant, which, due to the qualities of plants, being easy to find and bound to specific places, led to plants often being used in contemporary, educational exercises of Goethe's method—in reality, however, any phenomenon can be approached through the method. In the first phase, we approach the thing and get a first impression. This is usually quickly forgotten, but Goethe insists that we pay attention to it. For example, when we step into a house for the first time, we immediately receive a multitude of sensory impressions of smells, sounds, and colors that tell us something about the house and perhaps about how it is lived in. However vague and nonspecific this impression is, we should try to carry it with us through the rest of the research process and let it develop and clarify. We should ask ourselves whether our preconceived notions haunted this impression, and, if so, what did the house tell us about them, or whether we felt that we were experiencing something genuinely new? If we have already been confronted with the thing before the conscious research process began (it is likely that we have been drawn to it beforehand because it somehow appealed to us), we can try to remember this first encounter.

The second phase entails a sharper focus on the thing in question but still only by using our senses as much as possible. With the help of all the senses, not just sight, a description of the thing can be made that is as precise and detailed as possible. This is not as easy as one might think. In seminars, I have asked students to try as a group to describe in detail the same specimen of a plant, and several expressed how difficult they found it not only to describe what they saw but also to see all the parts of the plant. This becomes apparent when some of the participants suddenly notice something that had gone unnoticed by the others. The abundance of possible impressions that can be created by the plant makes this an inexhaustible process limited only by the participants' ability to observe and formulate those observations in relation to the plant. One student in the seminar said that she had never observed anything so intensely before and that this instilled in her a kind of respect for the plant, which she had not experienced before. Such experiences arising from similar exercises have also been documented in other contexts (see, for example, Holdrege 2013, 45–48).

While the second phase entails making an external visualization of the thing, the third phase aims to internalize the thing deeper in us and make it something more than a series of static sensory impressions. This is done by trying to imagine the thing as clearly and in as much detail as possible for our inner being, as a living entity living and developing through time. We try, so to speak, to play a movie inside us that expresses the dynamic relationship between the parts of the thing, that is, how each relates to the other over time. Goethe calls this "exact sensorial imagination":

> If I look at the created object, inquire into its creation, and follow this process back as far as I can, I will find a series of steps. Since these are not actually seen together before me, I must visualize them in my memory so that they form a certain ideal whole. At first I will tend to think in terms of steps, but nature leaves no gaps, and thus, in the end, I will have to see this progression of uninterrupted activity as a whole. (Goethe [1795] 1995, 75)

In addition to the plant appearing more as a whole, we also now begin to relate ourselves to the plant so that it not only lives outside of us but also dynamically within us.

This internalization is further deepened in the fourth phase by adopting yet another approach to the phenomenon. The continuous movement of the plant, which was evoked via the inner film, is now translated into "formative gestures," not only visual movements but also expressing meaningful actions. As Nigel Hoffman writes, this does not ascribe any form of human intelligence to the plant, but it also does not deny there is direction and intention in other organisms as well (1998, 134).

The production of these gestures requires an even more in-depth participation in the thing and is expressed partly through the inner imagination and partly in artistic sketches in the form of, for example, painting, music, or writing—a process not least adopted within Waldorf pedagogy, which was also largely inspired by Goethe. (Notably, Bockemühl was also very active within the Waldorf movement). These organic gestures should not be understood as things or movements but perhaps rather as verbs or deeds, or the way a piece of music expresses different intentions through its movement patterns. Perhaps we can think about this by using the analogy of how an actor must enact a role and translate the lines, which are parts of a character, of the dramatic text into active, meaningful gestures by expressing them on the stage with their body.

The fifth and last step in Goethe's method finally allows us to experience the wholeness of the phenomenon. The gestures are now concentrated even further by taking an intuitive approach. We sense the creative potential of the phenomenon, the "theory" of the thing, as Goethe calls it. This can be formulated in different ways, but Goethe suggests that it be done by using short, characterizing words. Craig Holdrege, for example, expresses the whole or essence of the skunk cabbage (Symplocarpus foetidus) as "water" and "bud." The whole plant has a water-like and bud-like quality:

> As the process of knowing unfolds—the conversation with the plant—you begin to see the unity of the plant. The remarkable thing is that when you build exact pictures over and over, moving from one characteristic to the next, patterns emerge. You begin to recognise how the characteristics express a whole—the unity begins to reveal itself. When you go back to characteristics you have studied before, they may suddenly express the unity you have discovered through another part. You have an "aha" experience in which you recognise connections between what previously appeared to be separate facts. You see a common watery, bud-like quality in the form and consistency of spathe, flower head and leaves. Skunk cabbage reveals the fluid quality of water in the way it unfolds and decays, as well as in its undulating, flowing forms. And in all of these characteristics you can see a vivid picture of early spring—a plant that is bud-like in so many ways and yet unfolds to bring the first life and movement to a still slumbering habitat. [The skunk cabbage blooms early and has the opportunity to generate its own heat. In this way, it offers both nectar and protection from cold to insects in early spring.] (Holdrege 2005, 45)

Evidently, this whole process is not about trying to explain the plant in any scientific sense. Our desire to explain things usually leads to a fragmented view of the phenomenon. Explaining means searching for causes. The cause is considered to explain why the phenomenon exists and thereby hides all other possible causes. The phenomenon is thus reduced to a (usually abstract)

cause, a theory, which is considerably poorer than the phenomenon itself. In Goethe's method, the phenomenon is not explained, but we gain a greater understanding of the phenomenon's particular way of being-in-the-world. If we still feel the need to ask "why?" it is in this being, which we have come to know, that we should take our starting point rather than in an abstract and pre-given explanatory model (Holdrege 1998, 214–16, 229; Holdrege 2005, 27–29; Holdrege 2014, 228–38).

If we use the Goethean method, we do not get to know the phenomenon by adding all its parts together and equating them with the whole. Nor do we come to know it by looking for the lowest common denominator of the parts and calling this denominator the unity, which is the usual method used in reductionist science. We don't take a step back from the object to try to get the big picture. Instead, we get to know the phenomenon by actively going into and through the parts to discover the whole that is implicit in them all and that binds them together: the whole that is *one* and many at the same time (Bortoft 1996, 11–12).

To many, the methodical steps described above may appear to be nonsense and terribly unscientific. The latter is, of course, true; Goethe saw the shortcomings of the objective scientific method and sought another way of knowing, which did not separate subject and object. Regarding the question of whether it is gibberish and nonsense, it might be relevant to notice that mainstream science, if not in practice then in theory, in some senses has begun to accommodate Goethe's methodological views and that Goethe in his own time achieved results in his research that, although dismissed by his contemporaries, have been confirmed or respected by the scientific community in more modern times (Goodwin 2001, 135–47; Ribe and Steinle 2002; Steuer 2002, 175–77). And we must not make the mistake of thinking that Goethean science could somehow be a complete substitute for conventional science. As I expressed at the beginning of this article, holism is about creating balance in a society that has increasingly lost contact with the living and threatens its survival. Training oneself in holistic thinking, for example by applying Goethe's method in relation to the outside world, is a way to restore this balance.

The holistic method developed by Goethe cannot be applied in an unmediated way to the study of literary works. A plant or an animal or any other phenomenon in the real world has a completely different mode of existence than that which we encounter through a written text. A text cannot be viewed from the outside but can only be experienced from the inside, unless it is a recital or a drama that takes place on a stage. Our impressions created by our senses are thus strongly reduced in the encounter with the text. We can only imagine smells, tastes, and visual impressions. Nevertheless, the text, as we noted earlier, is something. On the first read-through, we get a preliminary impression

that we can carry with us (phase one). We can notice and describe the details of the text, with different degrees of attentiveness (phase two). Even if the text is experienced internally from the beginning, it can be further internalized, e.g., by saying it aloud or memorizing as many aspects of the text as possible, observing its parts and structure (phase three). This internalization can be deepened further by "playing the movie" and seeing how the parts develop in relation to each other, both in relation to the time that the reading experience takes and in relation to the internal time of the text (if it has a story or other temporal aspect). We can try to translate these developmental movements further into dynamic gestures and to portray them externally—perhaps preferably through a medium other than writing (phase four). Finally, we form the impression of the whole/work (phase five). Roughly in this way, disregarding the details, one could reformulate the method from one that can be used in the study of a corporeal phenomenon, such as a plant, to one that can be used to examine an incorporeal phenomenon, such as a literary text. The difference between a text and a plant is likely smaller than we think, and since they are parts of the same whole (to the furthest extent, of the cosmos itself), the whole must, as we have seen, exist in the parts but express itself in different ways. When we experience the connection between a text and a plant, it is, therefore, this wholeness that we experience.

Goethe believed that all science developed out of poetry and that these two areas would one day be reunited, which would benefit them both (Steuer 2002, 160). As I see it, there is much to be gained by not isolating oneself in one's field in terms of the application of the Goethean method. For humanists who use texts as objects of study, working with a plant awakens the insight into how detailed and inexhaustible the physical world is and how untrained we are in perceiving and describing this richness of detail. This leads to another insight regarding, first, how undetailed our inner realization of a text can be, and second, how much we think a text contains but which is actually a product of our imagination with no basis in the text itself. This leads to humility in the face of the world's richness and in the text's potential to mean; it sharpens our attention during textual study and helps us recognize and see beyond automated patterns of understanding.

Conversely, the method can be applied to literary works to enrich the study of the physical world. Interpreting and engaging in a fictional world with a wider spectrum of thought than the purely analytical probably comes more naturally to most people than "learning to know" a plant or a stone. The study of a literary work can serve as preparation for and acclimatization to approaching the outside world in the same way. This is important from an (activist) ecocritical point of view because it is of course of less value if our educated ability to think holistically stops at the study of the text. The result of the interpretation of the text is not the primary thing here. The important

thing is the process, using the study of the literary work to develop a mind that can operate at all levels and leave object thinking where it belongs—in "practical, technical and functional activities."

The Goethean method is only one of several potential ways to develop holistic thinking through literary studies. A modified and secularized version of the medieval monastic tradition of interpretation, lectio divina ("divine reading"), could lead to the same goal. As noted earlier, the focus here was not on producing an analytical conclusion. The aim was to become part of the divine word, to experience and participate in the biblical text and perceive it as something alive in and outside oneself, all by using a well-laid out method, in four or five steps (Robertson 2011, xi–xix).

The contemporary post-critical movement mentioned earlier also has a potential that could be used for the type of reading we are pursuing. In its insistence on reading the literary text based on its own conditions, not distancing oneself from it, and establishing legitimacy for interpretations that consider more aspects of the reading experience than the purely critical-analytical, post-criticism is on the same path as outlined in this article. But interpreting the text in line with oneself requires a clear understanding of what this "in-itself" really is and a conscious suspension of the dichotomy between subject and object. Since our ingrained tendency is to perceive the world in fixed and independent objects, we (at least most of us) cannot easily transition from one type of thinking to another. We need a method that will translate the theory of holistic thinking into practice. The post-critic Timothy Bewes refers, among other things, to Goethe's "delicate empiricism" in his search for an approach to reading that does not reduce the work and bridges the gap between reader and text. In his discussion of figures such as Georg Lukács, Paul Ricoeur, Alain Badiou, and Gilles Deleuze, there are also many parallels with what has been addressed here based on Bortoft's approach to the problem. However, Bewes takes a relativistic stance that denies that the text has any kind of "self-identity." The goal of the reading-with-the-text that he proposes ultimately becomes identifying "that which in the text enables the present reading," which seems to preclude a fusion between the work and the reader, or at least places too much emphasis on parts, explanations, and the subjective aspect of the act of reading (which parts of the text cause my reading of it?) (Bewes 2010, 2–3, 12, 28, 30n8). Furthermore, Bewes cannot envision the possibility of a pure form of reading-with-the-text. It would, he emphasizes, imply a thinking that is identical to the text itself, a statement which appears contradictory considering that he previously denied such an identity to the text (ibid., 24). Apart from this inconsistency, it is true, of course, that thinking that is identical to the text itself is not possible as long as we confine ourselves to the logical world of theory and abstraction. However, an organic hermeneutics, where the work is one and many, can mean through

lived experience, in a world of paradoxes, it is not impossible—provided we find the right method to shift our seeing and thinking. When we no longer see the frog hop but just see "hopping," we know we are on the right path. The word "method" derives from the Greek meta and hodos and means precisely to be on the way. And ultimately, that is the key concept to learn here, regarding both reading and living: to experience the dynamic movement of life and to be in the method in a perpetual state of being-on-the-way.

NOTES

1. Unless otherwise noted, all translations are my own. "Om man bortser från den traditionella forskningen, som ägnas verkens tillkomsthistoria, förutsättningarna bakom dem, så kan det sägas, att litteraturforskningen på olika sätt *systematiserar* de litterära verken, deras innehåll och form. Stilforskningen systematiserar efter grammatiska och retoriska kategorier, idéanalysen efter olika idéhistoriska mönster, den komparativa och motivhistoriska forskningen efter ytterligare andra indelningsgrunder osv. Marxistisk forskning analyserar verken efter marxistiska tankelinjer, psykoanalytisk efter psykoanalytiska, strukturalistisk efter strukturalistiska, vilket i alla tre fallen innebär att de placeras in i något större historiskt eller systematiskt sammanhang, som inte härrör från dem själva."

2. "allt precisare uppfattningen av verkets mening"; "den absoluta sanningen når vi aldrig (eller kan i alla fall aldrig vara säkra på att ha nått [. . .])."

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Chapter 3

Power, Resistance, and More-than-Anthropocentric Leakages

Ann-Sofie Lönngren

The term "ecocriticism" is not only indicative of a theoretical perspective in literary studies but is often also applied to the literary texts themselves. Lawrence Buell states that first-wave ecocriticism, which lasted until about the mid-1990s, defined "ecocritical literature" as representations that interweave humans' history with nature and question the centrality of the human scope of interest from a nonhuman perspective. This kind of literature also attributes an ethical responsibility for nature to humans and has a dynamic, rather than a static, view of the nonhuman world. Based on these criteria, an ecocritical canon of "nature writing" began to form, with Henry David Thoreau's *Walden* (1854) as a sort of foundational text (Buell 1995, 6–8).

These definitions of ecocritical literature were central to early ecocriticism, which strove to reestablish the relationship between, on the one hand, the human, and, on the other hand, a "nature" which was seen as wild and original. During the second wave of ecocriticism, this idea has been criticized, primarily via the argument that there is no "natural" condition to reconnect with. Rather, "the natural environment" is, at the present time as well as historically, indissolubly united with the world made by humans, such as the urban landscape and a "wilderness" thoroughly altered by humans. Thus, the concept of "ecocritical literature" has been expanded to include almost all literature that portrays the relationship between humans and their environment, regardless of the tendency of the text (Buell 2005, 17–28).

Buell provides an influential account of how the way of looking at literature differs between the first and the second wave of ecocriticism, and this means that ecocriticism has gone from a perspective that applies to *a certain kind of literature* to being perceived as *a theory more generally applicable*

to a broad corpus that is not predetermined. Despite this, it is obvious that ecocritical studies in practice primarily concern themselves with fictional narratives which in different ways problematize, criticize and portray (possible and actual) consequences of modern humanity's exploitative relationship to the nonhuman world. By extension, this means the ecocritical scope of interest is continually focused on certain authors (for example Selma Lagerlöf, Kim Stanley Robinson and Peter Høeg) and certain genres (for example science fiction, climate fiction, gothic literature, indigenous literature and also quite a lot of contemporary literature in general, in which the author addresses questions of the relationship between the human and the nonhuman world). To what degree, then, has the concept of "ecocritical literature" really been altered since the first wave of ecocriticism? Is it still the case that ecocritical lines of thought are seen as being capable of applying only to a *certain* kind of literature which contains *certain* themes and tropes? Or is it possible to fruitfully apply ecocritical perspectives to texts which at first sight do not appear to be particularly relevant, either to environmental concerns or to humans' relationship to the nonhuman world?

ECOCRITICAL DEFINITIONS OF "LITERATURE"

To discuss these questions, we must start with a definition of the concept of "literature." In literary animal studies, one often-circulated anecdote is the one recounted by Susan McHugh of how she, as a student during a seminar, summoned up some courage, raised her hand and suggested that William Wordsworth's poem "Nutting" could be thought to represent a squirrel's meditation upon the changing of the seasons. In response, her teacher looked her in the eyes and said: "That's insane. Animals don't think, and they certainly don't write poetry" (2011, 5). This view, which defines "literature" as a thoroughly human concern, is certainly also common in many literary departments today.

But certain philosophical perspectives allow literature to be more than this. Theodor Adorno and Max Horkheimer, for example, state in *The Dialectic of Enlightenment* (1944) that the story of the civilization of humanity involves a takeover of both the inner human nature, with its needs and desires, and the external, nonhuman nature. And art, as well as literature, remembers humanity's dependence on nature, and thus functions as a witness and gives a voice to its subordination in modern society (Adorno and Horkheimer 2002). Another example is the reasoning of Gilles Deleuze and Félix Guattari in *Kafka: For a Minor Literature* (1975) and *Capitalism and Schizophrenia: A Thousand Plates* (1980). Here, literature's potential to make visible processes of "becomings" is emphasized, as well as its ability to offer "lines of escape"

from reductive and oppressive patriarchal capitalist regimes (Deleuze and Guattari 1986, 2013). Their questioning of the strong tendency in contemporary philosophy and science to take the human perspective as a starting point for the interpretation of a text has become a great influence in literary studies, but they have also been criticized. In *When Species Meet* (2008), Donna Haraway notes that Deleuze and Guattari are predominantly interested in what the concept of "becoming animal" does in relation to "Man." Thus, beliefs about the centrality of the human are reproduced (Haraway 2008, 27–35).

The influence of post-structuralism is fundamentally important for the definition of literature as anything other than a thoroughly human concern. Initially, ecocriticism's focus on the unescapable being and character of the nonhuman world was formulated as a challenge to poststructuralism's language-focused view of reality. Over time, however, the ecocritical perspective has come to be increasingly oriented toward post-structuralist lines of thought (Buell 2005, 17). This development can be understood in relation to the above-mentioned discussion by Buell about ecocriticism's first and second waves and may thus have major consequences for the view of what "ecocritical literature" can be. If "the Human" is a discursive construction rather an a historical reality (Badmington 2000, 1–10), if the author is dead (Barthes 1977; Foucault 1977), if meaning is produced in a play in which signs relate to signs rather than to a pre-discursive "reality" (Derrida 1978), and if literature can be seen as a network of discourses that relate to other texts rather than to the author (Kristeva 1980)—what would disqualify the nonhuman world from being part of meaning-making processes in literature (see further discussion in Lönngren 2017)? A post-structuralist point of view radically broadens what could be "ecocritical literature" and is thus of fundamental importance for the development of this concept. How, then, do representations of the more-than-human emerge, and how are they made visible and inscribed with meaning in literature in which they seemingly do not take up much space? To discuss that question, we will now look beyond the ecocritical perspective and toward other theoretical structures in which similar problems have manifested.

ANTHROPOCENTRISM AS POWER

In the introduction to *The Ecocriticism Reader* (1996), Cheryll Glotfelty provides an influential definition of ecocriticism as "the study of the relationship between literature and the physical environment" (xviii). This is a frequently quoted passage, but it has also been criticized for being too narrow and static (Garrard 2012, 4–5), an objection that should be understood in relation to

the discussion mentioned above, about the division into a first and a second wave of ecocriticism. Of interest here, however, are the lines that follow immediately after Glotfelty's definition: "Just as feminist criticism examines language and literature from a gender-conscious perspective, and Marxist criticism brings an awareness of modes of production and economic class to its reading of texts, ecocriticism takes an earth-centered approach to literary studies" (Glotfelty 1996, xviii). The comparison between ecocriticism and critical fields such as gender research and Marxist studies implies that they work in similar ways, and this means, as Greg Garrard has noted, that ecocritical perspectives are fundamentally political (2012, 3). An analogy with gender theory may thus be helpful in systematizing the understanding of how the relationship between human and nonhuman can manifest and be made visible and understood in literature.

A founding school of thought within gender theory is that of social constructivism, meaning that "man" and "woman," "masculine" and "feminine" are seen historically and geographically as changing categories that organize themselves in relation to each other according to the principles of hierarchy and dichotomy. However, this relationship and how it has been altered over time and place are not arbitrary but are strictly regulated by institutionalized patriarchal power operating on both individual and structural levels. Thus, the categories "man" ("masculine") and "woman" ("feminine") are clearly separated from each other in different contexts (dichotomy), though this separation can be to a greater or a lesser extent. Also, in this relationship, it shifts to what degree "man" is seen as the norm and "woman" as the deviation, and thereby also how much higher the characteristics that are conceptualized as male, e.g., rationality and activity, are ranked in comparison with those that are seen as female, e.g., indolence and passivity (hierarchy) (Hirdman 1998, 36).

If we apply these lines of thought to ecocriticism, this means that "man" and "animal, nature, matter," "human" and "nonhuman," can be seen as historically changing categories that are stuck in a fundamentally unequal relationship. As an equivalent to gender theory's acknowledgment of the importance of patriarchal ideology for the regulation of the relationship between the sexes, it would be possible to define the principle that structures the relationship between the categories "human" and "nonhuman" as anthropocentrism, that is, the notion that "Man" is regarded as the center of the universe, that the human perspective is seen as objective and true, that there are distinct and stable borders between humans and animals, and that everything else—animals, nature and matter—exists for the sake of "Man" (Steiner 2005, 1–3).

Anthropocentric schools of thought have existed throughout the ages (Steiner 2005), but the historical conditions for today's anthropocentrism

arose during the Enlightenment,[1] when Western philosophy formulated an understanding of the nonhuman world as mechanical and law-bound, and the human as organic and active. Within this approach, "Man" was given the status of being a subject, while nature was considered an object. The fundamental inequality between these two (gendered) categories means that it is possible to formulate in patriarchal and colonial terms the relationship between "Man" and his environment (Merchant 1980, 164–235; Öhman 2015, 30–2).

Anthropocentrism became a cornerstone of Enlightenment humanism; this ideology was developed in Europe from the late sixteenth century and means, in summary, that humans are attributed value and individual freedom precisely because they are human. This differs from earlier kinds of Western philosophy which had certainly also singled out humans as special, but this was against the background of having been given their status by a divine power (Soper 1986; Öhman 2015, 23–4). Swedish literary scholar Marie Öhman has defined three challenges of the Enlightenment lines of thought toward the mid-twentieth century, when aspects of technological progression, post-structuralist criticism of the subject, and a gradually more influential environmental and animal rights movement converged in the reconsideration of humans' special position in the world (Öhman 2015, 37). In this process, attention was drawn to the fact that the history of ideas about animals, nature and matter is as rich and complex as the history of humans. Running parallel to the Western Christian hierarchical view, according to which Man is in the image of God and thus stands higher than other forms of life, philosophical currents have always existed too; they challenge the dominant image by taking other parameters into account regarding the organization of lives and bodies (Brown 2010, 7–25; Crist 1999, 1). These are some of the historical prerequisites for the development of the ecocritical perspectives that emerged toward the end of the twentieth century.

The analogy with gender theory means there is an acknowledgment of the historically variable and strictly hierarchical organization of the analytical categories of the field. Against this background, it is possible to understand the relationship between "human" and "nonhuman" using Michel Foucault's lines of thought on a decentralized power that is by no means exercised only by authorities. On the contrary, every social contact is a link in a dynamic, complex and constantly fluctuating process of a distribution of power. However, not only power functions in this way, but also that which resists and undermines power—because "power" and "powerlessness" are concepts that are defined in relation to each other and thus constantly produce their own opposites (1988, 102–107). It should be both possible and a central concern for ecocritical analyses to make visible and intelligible these processes of

power distribution also in literature that does not specifically depict the relationship between humans and their environment.

THREE METHODS

How, then, is the relationship between the nonequal categories "human" and "nonhuman" manifested in literary narratives? This question, albeit in relation to gender, was posed in 1979 by Susan Gilbert and Sandra Gubar in *The Madwoman in the Attic*, and in response they suggested a method of analysis that departs from the assumption that literature can be seen as made up of different layers. In literary texts written in patriarchal societies there is, Gilbert and Gubar claim, a feminist subtext which is written over by a male-centered, culturally more accepted narrative. The term they use for this subtext is "palimpsest," which originates from the Greek designation of a handwritten text that is erased to provide space for a new one. However, the old text is not completely gone but, according to Gilbert and Gubar, can still be detected if one knows what to look for (2000, 45–92). If we transfer these arguments to the relationship between the human and animal/nature/matter, we can imagine that in literature written in humanist societies there is a more-than-human subtext written over by a narrative adjusted to anthropocentric norms. The task for the ecocritical scholar is to read this palimpsest in order to make visible the order of power that has created it, and, in an extension of this, to undermine it.

Another method for critical analysis within the field of gender studies that developed early on is based on Elaine Showalter's (1981) conceptualization of "male" and "female" as overlapping cultures. This view originates in the works of social anthropologist Edwin Ardener and means that Showalter regards the literary text as a male sphere of experience that overshadows a female one. Thus far, the argument is quite similar to that of Gilbert and Gubar's, but Showalter constructs a somewhat more dynamic model in that she does not let these cultures overlap completely but leaves a small fragment in which the suppressed feminine can appear, a space she calls "wilderness." Transferred to the field of ecocriticism, in this wild sphere the more-than-human, the nonanthropocentric, takes shape and gains expression; indeed, the term itself seems to call for such an analogy.

The problem with both Gilbert and Gubar's and Showalter's arguments is that they depart from a static view of reality and from the relationship between norm and deviation. The terms "male" and "female" themselves are not scrutinized, and the male is seen as always and in similar ways oppressing the female. If these models were transferred to the field of ecocriticism, it would thus be possible to imagine they correspond to the view of nature

evident in the first wave of ecocriticism, that is, it was seen as a wilderness untouched by humans.

The methods of analysis formulated later in queer theory seem to contrast with these early examples. Indeed, it is possible to see several similarities between this theory and ecocriticism, not least as to what kind of literature should be chosen for investigation. Queer reading practices emerged from a critique of the ways in which "homosexuality" was conceptualized as a trope or theme in certain texts that were written by specific authors and within certain genres and analyzed by readers specifically trained in the history of homosexuality. In contrast, it was now claimed that depictions which go beyond the two-sex model and heterosexual desire can be found in any text and can be made visible by the application of a queer perspective (Doty 1993, xi–xix). This discussion strongly resembles the one reviewed above about changes in the view of the concept of "ecocritical literature" between the first and the second wave of researchers within the field of ecocriticism.

A prerequisite for broadening the material for investigation in the field of queer theory is emphasizing how the relationship between "man," "woman," "male," "female," "heterosexual" and "homosexual" are dynamic and historically changeable. If the relationship between these categories—which, as a result of the influential terminology of Judith Butler, is called "the heterosexual matrix"—is not given by nature but is a socially constructed order of power, it must reproduce itself again and again within each context. Somewhere, sometime, this process is thus doomed to fail and to "leak" that which is not heteronormative. This is why queerness can be found in practically any text (Butler 1999, 3–44; Rosenberg 2002, 117–129). In similar ways, it would be possible to conceptualize anthropocentrism as a politically motivated order of power which holds itself out as being given by nature but which must continually be reproduced by actions so as not to be undermined by the fact that it leaks what is more-than-anthropocentric, thus constantly revealing itself as a construct. Indeed, the thought about "leakages" ought to be highly productive in certain kinds of ecocritical analysis.

The queer-theoretical approach apparently generates the most dynamic reading method of the three that have been discussed here, and within this field similar questions also have been posed, as in the field of ecocriticism, about which texts are suited to being interpreted. The question is, however, how much and in what ways this theoretical apparatus must be revised to be a fruitful tool in ecocritical analysis. To discuss this question and to investigate whether or not it is fruitful to apply ecocritical perspectives to literature that does not explicitly thematize the relationship between the human and the nonhuman world, I now turn to a text that is as far from contemporary literary representations of global warming as it is from indigenous and gothic literature.

MATERIAL AGENCY IN REALIST LITERATURE

A Madman's Manifesto (*En dåres försvarstal*) is a novel in four parts written between 1887 and 1888 by Swedish author August Strindberg (1849–1912). The story follows the development of the marriage between the author and his first wife, Siri von Essen, called Axel and Maria respectively in the novel, from their first meeting until they divorce around twelve years later. *A Madman's Manifesto* was originally written in French, and the style is realist with strong influences from naturalism. It is generally conceptualized as a modern masterpiece thematizing, among other things, the relationship between the sexes, lesbianism and psychiatric conditions. One could say that if there are more-than-anthropocentric leakages in this novel, they are likely to be found anywhere. So, are there any leakages here, and if so, how have they been understood by the previous research?

To discuss these questions, I turn to the final part of the novel, when Maria and Axel are living together with their children in a small artistic community outside Paris. The marriage is on the verge of breaking down, and Axel, who is the novel's narrator and the character through which the entire course of events is focalized, is suffering from severe jealousy of the men and women that he thinks Maria is being unfaithful with. His feelings are forcefully expressed in the depiction of a small group of lesbians from Denmark who are living in the community:

> The society that I met there was composed of young Scandinavian painters [. . .] and, what was worse, of women painters, without scruples, emancipated from everything, frantic admirers of hermaphroditic literatures, so that they believed themselves the equals of man. To distract attention from their sex, they attributed certain male exteriorities to themselves, smoked, got drunk, played billiards, etc., and indulged in the game of love between one another. (Strindberg 1971, 197)

Comparing this quote to the French original, the English translation is inadequate and lacking in detail. Where it says "etc." in the English quote above, the following information is to be found in the original text: "font leur cas dans la rue, derrière une porte, vomissent sans gêne publiquement [et], selon leur propre aveu" (Strindberg 1999, 486; in English "did their deed in the street behind a door, vomited unashamedly in public and, according to themselves"; my translation). As I will show, what is excluded in the English text is significant for the ecocritical analysis, but before that discussion is carried out, let's have a look at some other quotes from the novel.

A bit later in *A Madman's Manifesto*, Maria sings a love song to one of these Danish women, at which the male narrator notes that the object of her

passion was "a redheaded type, male face, hooked, hanging nose, fat chin, yellow eyes, cheeks puffed out from an excess of drink, with a flat breast, crooked hands" (Strindberg 1971, 205). In another quote on the same page she is called a "fat sow." The marriage between Axel and Maria continues to deteriorate, but after a temporary separation, Axel realizes he wants Maria back. They meet in a café, but when he sees her, he changes his mind:

> [I]n a flash, while eyeing Maria carefully and more closely, I discovered a striking resemblance in her to her friend, the Dane. Everything was there; the mien, the pose, the gesture, the arrangement of the hair, the expression of physiognomy! Had the tribad played this last trick on me? Did Maria not come from the arms of her mistress? (Strindberg 1971, 226)

How, then, have these quotes been understood in the previous research? *A Madman's Manifesto* is a novel that has been subject to a range of interpretations, from which I have selected a few enlightening examples. In 1965, the Swedish literary scholar Sven Rinman claimed that Maria's same-sex desires should be seen as an expression of the novel's handling of themes of insanity, and of what Rinman understands as the configuration of a grotesquely distorted love story (Rinman 1965, 68, 74). A similar understanding was formulated by Terry Castle in 2003, as she claimed that "the volatile mixture of sexual grotesquerie, burgeoning paranoia, and emotional violence is classically Strindbergian" (Castle 2003, 571). Castle also points to the fact that lesbian desire is depicted as "'monstrous'" (2003, 571), a denomination which has a predecessor in Lillian Faderman's great lesbian literary history, *Surpassing the Love of Men* (1981). Here, the representations of lesbianism in *A Madman's Manifesto* are understood within their historical context, and Lillian thus claims that Maria is not "a living woman, but one of those moral monsters of French literature." She goes on to note that Strindberg is so influenced by decadent European literature that he seems to think that lesbian monsters exist in reality (Faderman 1981, 285).

Grotesqueries, insanity, monstrosity, distortion, paranoia, a misunderstanding of the relationship between reality and fantasy—what is it in the quotes from *A Madman's Manifesto* that calls for these interpretations? I propose that the answer is to be found in the level of activity that characterizes the bodies described in the text. According to an anthropocentric Enlightenment paradigm, all nonhuman life is law-bound and mechanical (Iovino and Oppermann 2014, 2), and the human body is a clearly demarcated, stable unit (Laqueur 1992, 7–8). But the lesbian bodies in *A Madman's Manifesto* leak and swell, twist and turn, reform, transform and merge with each other. Thus, the representations of them cannot, according to the anthropocentric

paradigm supported in the previous research, be conceptualized with anything other than terms that point to absurdity and madness.

To question these understandings and to generate new meaning in *A Madman's Manifesto*, I turn next to the perspective in the field of ecocriticism called "material ecocriticism," which can be utilized to shed light on both the material circumstances of literary texts and on depictions of matter in literature. The point of departure is that all matter has agency, so not only what is depicted as alive and conscious can affect the human world (Iovino and Oppermann 2014, 2–3). This also applies to human bodies, which are both surrounded and permeated by nonhuman forces (Bennett 2010, ix). Agency thus is not necessarily or exclusively associated with humans or human intention but is an inherent part of the dynamics of matter (Iovino and Oppermann 2014, 3).

These lines of thought make intelligible those parts of the novel which previous research has dismissed. I propose that the lesbian bodies in *A Madman's Manifesto* should be seen as literary designs of material agency involved in a complex relationship with discourse in the joint making of "reality." As Karen Barad states, the creation of "reality" always happens in an "intra-action," a reciprocal movement between matter and discourse which affects the world, the matter and the discourse, and the relationship between them (2003; see also Barad 2007, 113–202). Applied to *A Madman's Manifesto*, it is the material agency of the bodies depicted in the novel, in addition to the novel's relationship between sex, gender and sexuality, and the narrator's misogyny and homophobia, which creates the effect of a coherent narrative saturated with cultural meaning. According to this discussion, the lesbian bodies in *A Madman's Manifesto* can be seen as being in the process of performing what Barad has called the potential of matter to "kick back" against oppressive discourses (1998, 116). It is as if the novel's literary matter opposes the pressure of the words by bulging, swelling and leaking. The women in this story do not have a voice; they are exclusively described by the heteronormative and misogynist male narrator. But from a material ecocritical perspective, a resistance is made visible that was previously hidden: the uproar of unruly bodies that rise up against the novel's patriarchal and homophobic oppression.

SIMULTANEITY AND MADNESS

The analytical points above show that it is also possible to apply ecocritical perspectives to literature that does not explicitly or very thoroughly thematize the relationship between the human and the nonhuman world, but they also produce some questions. The first question is: If we conceptualize the depiction of lesbianism in *A Madman's Manifesto* as characterized by a

more-than-anthropocentric "leakage" of material agency, what happens to the emphasis of previous research on the position of the text in a literary history and to Strindberg's well-known misogyny? Are these no longer relevant perspectives? Have they, so to speak, been delegitimized by the ecocritical reading? These questions clarify that when scrutinizing the anthropocentric paradigm in realist literature, one must be able to keep two thoughts in mind at the same time. The point is not to replace one kind of reading with another, to point out that previous research has been "wrong" or that the misogyny and homophobia in this novel lack significance or are nonexistent. Rather, the relevance of the ecocritical analysis is that it makes visible the anthropocentric paradigm that structures both the literary text and the literary interpretations, as well as the ways in which these are challenged by other versions of "reality." Edward Said uses the term "contrapunctual"—which originally signifies a kind of music with two melodies played at the same time—as a way to make visible the doubleness of negative and positive experiences of exile (2001, 173–86). The ecocritical analysis in *A Madman's Manifesto* can be regarded in similar terms: as a making visible of the fact that certain narratives about oppression and resistance are culturally intelligible, others are not, and that these two can appear, cooperate and cocreate within the frames of one and the same text.

The other question that emerges in the wake of the above analysis is how convincing it is. To paraphrase the earlier quote by McHugh (2011), some people would probably, in accordance with previous research, like to exclaim "This is madness. Bodies don't transform, and they certainly don't merge." At this point, we should remember that part of the purpose of ecocritical analysis is to "reenchant" the world and thus push the boundaries of what can be regarded as "reasonable" and "true" (Cohen 2014, x). Moreover, a lot of what were seen as irrefutable truths about the nonhuman world fifty years ago have turned out to be grave simplifications, or just faulty, and many of the ways in which humans have related to their surroundings (such as dumping rubbish in the ocean) today appear as "crazy." As Foucault notes, what is considered "madness" certainly has a history, one strongly motivated by the urge to discipline populations and distribute power (2006). Jacques Derrida notes that the introduction of nonhuman perspectives in the modern Western production of knowledge unavoidably comes with a certain degree of what could be termed "crazy," since this is a context in which the anthropocentric norm is strong (2008, 9–10).

As a consequence of the discussion thus far in this article, the scope of interest has been redirected from the question about what "ecocritical literature" can be assumed to be and toward the reader's task and the purpose of literary interpretation. As we saw in the analysis, it is evident that previous research about *A Madman's Manifesto*, by means of referring to the author

and his literary influences, explains away the more-than-anthropocentric leakages to the advantage of an intelligible, anthropocentric world. There is a fixation on the metaphorical meaning of certain passages that stand out, such as the ones referred to in the above analysis, and attention is thus directed away from what the text actually says. In this way, the text is neatly organized, its anthropocentric foundations are rendered invisible and the anthropocentric world is reinstated. In the end, we are left with a literary narrative which might be paradoxical, offensive and/or surprising but is nevertheless fully culturally recognizable.

The ultimate purpose of previous research on *A Madman's Manifesto* thus appears to be to make the text intelligible and to explain what it means in accordance with current norms; in this sense, it corresponds with wider tendencies in the field of literary studies. Barad suggests that research in the humanities risks stopping at self-reflection and self-confirmation of its own points of departure, "much like an infinite play of images between two facing mirrors" (2003, 803). Hillevi Ganetz has expressed similar lines of thought in her concept of a "cultural boomerang," which designates investigations that confirm their own point of departure rather than produce new knowledge (2004, 209; see also Wingård's chapter in this anthology). Finally, elsewhere I have already discussed how literary interpretations of *A Madman's Manifesto* come to function as "gatekeepers of reality" (Lönngren 2014, 7) for which the ultimate goal appears to be the reestablishment of the anthropocentric paradigm in a text which is striving to transgress its limits.

CONCLUSION: SCRUTINIZING "THE ANTHROPOCENTRIC GAZE"

The conclusion that can be drawn from this discussion (which could engage in dialogue with many more authors, among them Haraway [2000] and Latour [2005]) is that literary scholarship possibly relies a bit too much on common sense in its interpretational practices. Perhaps it is when an analysis produces *unreasonable, unrealistic* results that the analysis should be considered especially relevant, since this means it is pointing to something new, something that is not generally accepted as true and that we did not already know. This type of knowledge is certainly needed in a world characterized by an accelerating environmental crisis.

In another chapter in this anthology, Amelie Björck claims that a central part of ecocritical analysis is acknowledging the difference between a metaphorical and a metonymical way of reading the nonhuman world; another is choosing material for the investigation whose very form challenges the anthropocentric norm ("*zoopoetics*"). Against the background of the

discussions I have carried out in this chapter, I would like to add that these measures, although certainly relevant in the field of ecocriticism, must entail a broader scrutinizing of the reader's "anthropocentric gaze." Tentatively, two different points of departure crystallize for such a discussion.

First, there is modern hermeneutics: the reader's prejudices about what a literary text can be imagined to represent is defined as a prerequisite for the practice of interpretation (Gadamer 2004, 137–47). This discussion has continued within post-structuralist and post-humanist contexts about the relationship between the world and text, and can, by extension, be connected to ecocritical interpretation practices. Second are the critical perspectives, about which we can continue making the analogies we did previously in this chapter by noting that just as gender theory has scrutinized "the male gaze" (Mulvey 1975, 14–26), queer studies has identified "the straight gaze" (Doty 1993, xi–xix) and postcolonial research has defined "the oppositional gaze" (hooks 2015, 115–131), it is necessary that ecocriticism makes visible and questions "the anthropocentric gaze."

On a fundamental level, such a project would entail scrutinizing the prejudices about the content of the literary text by means of objecting to the foundational pillars of the anthropocentric paradigm, specifically in relation to scholarly praxis in the field of literary studies. The objection would be that the borders between human and nonhuman are stable and unchangeable; that these categories are in a hierarchical relationship between themselves; that literature can represent only a human sphere of experience; that the nonhuman can only be assigned meaning in texts written in certain genres, by certain authors, during certain times or in texts that encompass certain tropes and themes; and that it is the task of the literary scholar to make the text intelligible.

We can never go beyond ourselves and our own phenomenological experiences as humans, but we can identify the points of departure for our own production of knowledge and adjust and challenge them so that meaning beyond our own immediate horizon is formulated (Lönngren 2015, 22). The ecocritical reader who aims to go beyond what is conventionally regarded as "ecocritical literature" must therefore produce knowledge that is *both* recognizable to the point that its relevance comes across, *and* question anthropocentric points of departure in literary scholarship. In this chapter I have tried to demonstrate how the balance between these two can be negotiated, but each analysis is different, and the task is not an easy one. This is a challenge for future literary scholars to tackle.

NOTE

1. In this discussion it is important to keep in mind that today's view of Enlightenment humanism is a nineteenth-century construct rather than a historical reality (Davies 2008).

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Chapter 4

Critical Utopia or Climate Change Dystopia?

Katarina Leppänen

CLIMATE FICTION AND THE FUTURE

Tom Moylan first developed his method of analyzing critical utopias in *Demand the Impossible: Science Fiction and the Utopian Imagination* (1986), and he applies it on four science fiction novels: Ursula K. Le Guin's *The Dispossessed* (1974), Joanna Russ's *The Female Man* (1975), Samuel R. Delany's *Triton* (1976), and Marge Piercy's *Woman on the Edge of Time* (1976). Moylan is inspired by the social movements of his time and contributes to the tradition of Marxist literary studies that views literature as an integrated part of social and political, even revolutionary, change. His idea of a renewed form of utopian texts, which he terms critical utopia, has been widely debated since the book was first published. The 2014 reprint of *Demand the Impossible* includes a fuller "Introduction" and a new concluding chapter by Moylan, as well as thirteen articles by prominent scholars reflecting on Moylan's influence in the field.[1]

In this chapter I will use Moylan's method to tease out the critical utopian impulses in two contemporary climate fiction novels, Barbara Kingsolver's *Flight Behavior* (2012) and Emmi Itäranta's *Memory of Water* (2014). Climate fiction came to be used widely in the 2010s as a label for a genre of fictive novels and short stories.[2] The term refers to fictional work that responds to climate change or global warming and the "political, social, and ethical issues" generated by it (Goodbody and Johns-Putra 2019, 1–2). Two diametrically opposite approaches, and one dismissive approach to climate fiction can be identified. First, among others, Gregers Andersen (2020, 5) argues that cli-fi should not be used for just any climate change fiction (e.g.,

change caused by natural disaster) but should be reserved for anthropogenic (human-induced) changes. This is of course not always easy to determine, as a combination of causes may be at work (global warming and a volcanic eruption), or the root cause may not be known to the reader or the story's protagonist. Second, a more generous approach is suggested by Adam Trexler (2015), who proposes that an analytical climate change perspective can be applied to any novel, because all stories carry traces of human attitudes to the nonhuman environment. Amitav Ghosh (2016) represents a dismissive stance as he argues that the genre of the modern novel is incapable of depicting something as temporarily and spatially overwhelming as climate change. Several influential theorists of the Anthropocene agree with Ghosh and claim that our current narratives are limited to a human scale and that we need radically different approaches to grasp the enormity of change (see, e.g., Morton 2016; Colebrook 2014; James 2020). Today, many climate change novels display an overlap between the realistic and the futuristic, and Axel Goodbody and Adeline Johns-Putra (2019, 234) note that "what is crucial about both future worlds marked by climate catastrophe and everyday milieus torched by climate concerns is that they provide drama, and thereby engage readers' attention to the way which nonfiction cannot replicate without recourse to elements of fictionalization and personification."

IDENTIFYING CRITICAL UTOPIA

For Moylan, critical utopia expresses radical possibilities of future societies by setting utopia "against both the realist images of present-day oppression and the dystopian images of the future in which the focus on profit and power prevail" (2014, 118). By adding the "critical" to "utopia" he rejects the utopian genre as one that has primarily offered blueprints for an ideal or idealized world. And as Krishan Kumar (2010, 561) reminds us, dystopias and utopias share many literary devices "of imagining, often in very great detail, what it would be like to live in a quite different society, one that had overcome the problems and predicaments of their own society."

Moylan's purpose in identifying critical utopian fiction is to grasp the political potential of utopian stories that could ignite political change in the real world. He emphasizes that the novels offer "reversals and deviations" (2014, 43) to the traditional utopian genre, most particularly by establishing an open dialogue between the originary world (the real world in the novel) and its utopian alternative world. As he observes about utopias emerging in the 1970s, they often connect to social and political change in relation to feminist, anti-racist and anti-capitalist movements. He is not interested in utopias as expressions of perfection, and he writes that the novels of the 1970s "focus on

the continuing presence of difference and imperfection within utopian society itself and thus render more recognizable and dynamic alternatives" (Moylan 2014, 10–11). Critical utopias are then critical in at least three meanings of the word: They are grounded in a dissatisfaction with the current world; they abandon the idea of offering a blueprint for an ideal society; and they address a critical mass (of readers/activist) that is required for social change. The novels Moylan focuses on offer very clear ideological analyses of both the current society and the utopian society. For example, Moylan analyzes Marge Piercy's *Woman on the Edge of Time* (1970) where the poor, destitute Connie Ramos is incarcerated in a mental hospital and discovers a telepathic ability to communicate with the androgynous Luciente from the year 2137, a time when many of the social problems of 1970 have been solved. But Piercy acknowledges that new problems have emerged, and it is key to Moylan that critical utopias do not "reduce alternative visions to closed and boring perfect systems that negate the utopian impulse that generated them" (2014, 143–144). Critical utopia as a genre thus focuses primarily on change and process, rather than on end product. In Piercy's novel open-endedness is highlighted by juxtaposing utopian Mattapoisett, where Luciente resides, with the dystopian New York of the future where Gildina lives under the exploitation of corporate power, cyborgs, the patriarchy, and enormous class inequalities. This suggests that, depending on the choices made today, multiple futures are possible and a progressive world "is not an inevitable outcome of history" (2014, 129) but rather the result of political struggle. It is this malleability of the contemporary as well as future societies, and the idea that fiction has a social and political role in initiating change in the reader's actions, that makes Moylan's method suitable for analyzing the climate fiction of today.

CRITICAL UTOPIA AS METHOD

It should be noted that Moylan does not present critical utopia as a method but favors terms like "operations" for examining utopian texts (36), critical utopia as a "genre" (31), a "form" (31), and as "layers of analysis" (45). He reserves the term "method" for collective social and political action, rather than for literary analysis, which is indicative of Moylan's work as he explicitly situates himself in the radical pacifist left movements of the 1970s (xi). Terminological differences aside, Moylan does suggest a procedure entailing three steps that are crucial in analyzing a utopian text. The analysis should investigate the following interlaced themes: 1. the alternative society, 2. the protagonist/visitor and 3. the ideological contestation brought by the alternative society to the originary world (36).

The alternative society, rather than a hero or person, often plays the role of leading character in a utopia, as it is the workings of society that are of primary interest (37). Whether the utopian society is located in a different geographical place, in the past or in the future, it is the legal, moral, intellectual, and technological developments pointing to a better and more advanced society that are in focus. According to Moylan, critical utopias differ from traditional utopias in their more balanced depictions of alternative societies, assessing advances and problems equally (43). This makes it possible for the author to explicitly compare the pros and cons of different social and political systems, which in turn means that the utopian society is as much in a process of change and development as is the protagonist's originary world. The second step is to study the protagonist who visits an alternative world. The visitor is often assigned a guide whose task it is to explain and to show how the place works. The visitor's position in the originary world directs the inquisitive focus by foregrounding the "political quest" (44). The main characters in traditional utopias take the role of curious but rather passive observers, while in the critical utopias the visitors often represent disenfranchised groups and become agents of social transformation (45). For example, Luciente and Connie are seeking transformation in both worlds, and Connie's role is not primarily to observe but to learn and act in a manner that will make the better future of Mattapoisett and Luciente come true, rather than the dystopian world that Gildina inhabits. The third step, the ideological contestation, follows logically from the previous steps and is imbedded in the critical utopia itself. The presence of the alternative world is a contestation of the current world and should be read as real political challenges "that articulate deep ideological engagements which relates the entire text to history itself" (36). Presenting utopia in relation to history enrolls the critical utopian text in continuous political struggle. To make the historical and political challenge happen, the text needs to be open and self-reflexive, and Moylan contends that the critical utopian genre therefore often presents fragmented narratives and works with intertwined temporalities, multiple protagonists, including, on occasion, male and female versions of the same character (45). Before applying Moylan's three-step method, I will present the novels to be analyzed.

FLIGHT BEHAVIOR AND *MEMORY OF WATER*

Barbara Kingsolver is known as an environmental writer, and her novels often revolve around issues of class, gender, race, and sexuality. The title, *Flight Behavior,* refers to the changing migration patterns of the Monarch butterfly as well as to the behavior of the protagonist Dellarobia Thurnbow, restless in her marriage and in the rural small town in the Appalachian mountains of

Tennessee where she lives. The book has an overt feminist agenda and has been labeled a *Bildungsroman* because it depicts Dellarobia's intellectual development and maturation (Wagner-Martin 2014, 1–20). She is an ambitious young mother who knows she could have done better had she had the courage to break away. On a trek through the woods to meet her lover in an isolated cabin (portrayed as yet another way of fleeing from a dreary life) she comes across a tree covered by a roost of Monarch butterflies that are obviously displaced. Dellarobia takes on the task of helping the entomologist Ovid Byron in analyzing the butterflies and their risky overwintering so far north. Note especially Kingsolver's choice of the name Ovid for the scientist. He is the namesake of the ancient poet who wrote *Metamorphoses* over two thousand years ago, a book that catalogues Greek and Roman transformation of humans into other sentient and nonsentient beings such as animals, trees, and rocks. And Byron, of course, is a hint at Lord Byron, the romantic poet. Ovid Byron is clearly key to Dellarobia's transformation from a passive, unhappy wife and daughter-in-law into someone who takes informed and active decisions for the betterment of herself, her children, and, to some extent, the environment. The global circulation of people and knowledge alike is highlighted by the presence of the Mexican Delgado family, who fled their home when floods destroyed their farmland in Michoacan, where the butterflies normally spend their winters. Now it seems like none of them, neither human nor butterfly, can go back.

Emmi Itäranta's debut *The Memory of Water* is a dystopic novel set in a dry, grim future. The protagonist, seventeen-year-old Noria Kaitio, is a young woman living with her scientist mother and tea master father, in a small town in the Scandinavian Union. The territory is ruled by a Chinese military dictatorship, and the center of political power is located far away in New Qian. After a series of wars over oil and water, the military has taken control; people die of dirty water, hygiene is difficult, and illegal water trade is booming. The Kaitio family members are ancient "keepers of water" and have access to a secret freshwater well, but those caught as water criminals are locked into their boarded-up houses and will die of thirst or be executed. Noria's mother moves to the university to gain resources for her research and when her father passes away Noria is left to fend for herself. The exact year is not disclosed to the reader, when the young woman Noria and her friend Sanja discover CDs from the Past World that contain fragmentary information from the illegal Jansson expedition that claimed plenty of fresh water was kept under military control. Noria refuses to accept subjugation and starts distributing water to the villagers, at great risk. She plows through the old tea masters' ledgers, her mother's scientific books, and maps, and she makes notes from the CDs, in order to find a way out. Noria and Sanja decide to attempt a voyage to the forbidden Lost Worlds in a quest for the truth about

water. The plan fails and the story ends when Noria, locked into her house, loses access to water and refuses to cooperate with the military. But while Noria is isolated and preparing to die, Sanja has managed to escape and reaches Noria's mother at the university and hands over the CDs (see further Leppänen 2020; Guanio-Uluru 2019).

As my summaries show, the two novels share similarities regarding climate change, women protagonists, and a "utopian horizon" (Moylan 2014, xvi), or a "utopia spirit" (Kumar 2010, 560). I will now demonstrate how Tom Moylan's method can be used to analyze novels that, in many regards, would not fit into his initial interest in the science fiction genre. In contemporary climate fiction one seldom finds such clearly demarcated critical utopias, and most often climate fiction is understood as dystopian. Yet Moylan's method of critical utopia can help us reread stories for their utopian potential. For each step in Moylan's model, I introduce some additional contemporary theories to support and deepen the analyses.

ALTERNATIVE WORLDS

The first step is to investigate the workings of the utopian alternative worlds. In Moylan's examples the boundary between the originary world that the protagonist inhabits and the future utopia is relatively clear and identifiable because it entails imaginative transportation between two or more worlds, as in Connie's case between a psychiatric ward in New York City in the 1970s, Mattapoisett in the 2130s, and Gildina's dystopia. Furthermore, Moylan makes a point of the close connection between the authors' political standpoints and the problems they present in the fictive setting, thus blurring the boundary between the real world and the textual real world. What are the alternative worlds of *Flight Behavior* (hereafter *FB*) and *Memory of Water* (hereafter *MW*)? In *FB* the "best of all possible" worlds (Moylan 2014, 144) exists temporally parallel to Dellarobia's dreary life, but it seems almost as unattainable as a faraway egalitarian society on another planet. She starts imagining an alternative future for herself and the children where they can study, work, and reach a slightly more secure financial situation. On the collective level, the future is imagined as not ruled primarily by tradition and arrogance, but rather where new environmental and socially sustainable thinking is central. In *MW* it is both harder and easier to decipher the characteristics of a positive future. The easy answer is to grant everyone access to water, thereby breaking the power of the military. The more difficult questions pertain to the total lack of trust among the citizens. Noria becomes suspicious even of her best friend and considers the possibility of her being an informer. The alternative world must then be one of equal access to resources

and include a rebuilding of social trust. Noria makes an attempt to achieve equal distribution of water but, given the lack of communal cohesion, she is imprisoned in her own home as a water criminal.

Critical utopia as a literary genre emerged in response to social and political movements in which ecological questions were present among demands made for justice and equality. Climate fiction fills many of the same literary, social, and political functions today. Moylan emphasizes that critical utopian narratives reinvigorated the traditional utopian narrative form by creating reciprocity and openness between the originary world and the utopian world. Literary scholars Erin James and Eric Morel (2020, 10–11) use the term storyworld to describe "the reader's mental model of the context and environment within which a narrative's characters function," and how a storyworld "calls attention to the worldmaking power of narrative, or its potential to immerse or transport readers into virtual environments that differ from the physical environments in which they read." The analysis of storyworlds can hardly be overemphasized as an ecocritical method, especially when the narrative seeks to affect the reader's understanding, perhaps even the reader's actions, in a more environmentally conscious direction. Storyworlds can thus transport readers to other worlds just as critical utopias can. In the case of *MW*, the storyworld differs from current Scandinavia where water shortage is not a concern, although it is not unimaginable in the future considering the regional oxygen depletion of the Gulf of Finland and the global commercialization of water. In *FB* the verisimilitude of the storyworld and the current world is striking, and the problems of flooding and deforestation are all too familiar topics in global news reports. Much recent climate fiction relies on the verisimilitude between the current and the fictive worlds regarding the physical environment, the social order, or human strife. Astrid Bracke, in her reading of *FB,* uses Marie-Laure Ryan's concept of "the principle of minimal departure" (Bracke 2020, 166), suggesting that in climate change literature the step from the reader's "real world" to the "textual real world" should be as short as possible because "climate fiction *reflects changes as they are in process of occurring*" (Garrard quoted in Bracke 2020, 175, italics in original). The reason for limiting the fictive parameters to the recognizable, rather than the distant future, lies in the imaginative power of such stories that can help us visualize a variety of futures and—perhaps—help us in dealing responsibly with today's climate issues or at least refraining from actions seriously detrimental to the climate.

In line with the above, I would argue that the concretization offered by the storyworld is important. James and Morel (2020,11) write that a "basic concern of ecocriticism is the process by which *space*, which connotes abstraction, is modified into *place*, which connotes value and meaning." (See also Brudin Borg's chapter in this anthology.) Alternative worlds play an

important role in both *FB* and *MW* as the abstract threat of climate change is given concrete time and place and connects to individual people's lives. The extent to which we are receptive to new narratives is individual and depends on our personal ideological convictions as well as our real-world contexts. Even though one is a contemporary realist novel and the other a dystopian science fiction, both authors use the possibility of a better future to inspire change in readers' actions. However it is not possible to map the alternative worlds as specifically as Moylan does, since the information offered is more limited, which may in fact be the major difference between the 1970s and the 2010s.

PROTAGONISTS

It is clear in Moylan's analyses that women are the agents of social transformation (Moylan 2014, 45) and that they are the ones pointing out the ecological consequences of the dominant economic and political systems. Ecofeminism is an umbrella term, originating in the 1970s, that covers practical and theoretical work on the women/nature connection in western thinking. A special focus of ecofeminists has been on dualisms, such as male/female and culture/nature, and how the dualism termed male/culture is hierarchically elevated over the dualism female/nature (see, e.g., Merchant 1980; Plumwood 1993; Warren 1994). In literary studies, an ecofeminist method can direct the analytical focus toward questions of if and how gendered differences between humans or between the human and the nonhuman are depicted, and to what extent such differences are significant in narratives (Vakoch 2023).

Poverty, disgruntlement, and a certain complacency fed by restrictive social norms stop Dellarobia from acting until she gets a glimpse of the scientific world of entomology. Ovid Byron supports her ambitions and encourages her son's curiosity, and seeing the way Byron interacts with his visiting wife (who is also a scholar) gives Dellarobia the courage to aim for something better and different for herself and her children. Notably though, as is the case with Moylan's critical utopias, the goal is not to achieve a perfect life but rather to stake out the path toward something different and better than the status quo. Byron is instrumental in instigating the process, but its feasibility depends entirely on Dellarobia. She divorces her husband and constructs an agreement of mutual support with a childhood friend, enabling her to work and study while caring for her two children, exemplifying the need for collective efforts to create a better future, an important concept in Moylan's theory.

In *MW* a positive future seems improbable, and a dystopian despair dominates the story. The fragmentary nature of the information is emphasized

by the extensive use of Past, Lost, Forbidden as well as the terms "plastic graveyard" and "metal graveyard" for the refuse heaps from the reader's era. The diaries and the CDs thus fill the function of a visit from another world, or rather, the Jansson expedition becomes a visitor from the past (for a discussion on memory in *MW* see Jytilä 2022). Noria discovers connections in all the various sources to her own family history and together they seem to pinpoint her as the game changer. Finding water would allow Noria to speak truth to those in power.

Kingsolver and Itäranta focus on young women and their active engagement with environmental problems. Noria and Dellarobia are portrayed as being between childhood and adulthood. The fact that they are young suggests a dimension of malleability as they define and reassess their roles in society. Young people representing hope for an otherwise doomed humankind is a common trope in young adult fiction and, strangely, it puts a lot of responsibility on the young to correct the mistakes of previous generations (Curry 2013; Laakso, Lahtinen, and Samola 2019). A central scene is Noria's initiation as tea master, an appointment questioned by the military commander Taro. With changing gender roles new responsibilities follow, and Noria as the guardian of water does not prioritize the ritualized tea master secrecy nor the watcher of water tradition but rather commits herself to water distribution. This can be understood as a caring role that extends beyond the family and illustrates an ecofeminist trope of women's disproportionately large responsibility for both the environment and social sustainability, thus representing the ecofeminist women/nature/society axis.

Dellarobia is legally an adult, married and with children and a house. But her development into adulthood was stumped by a teenage pregnancy, a rushed marriage, a miscarriage, followed by the births of two children. It's as if there is not enough space in the rural small town, and her intellectual life is restricted to her own thoughts and her son's questions. Kingsolver's language has a somewhat religious tone, which may reflect the Christian community depicted more than Dellarobia's convictions, yet it provides a frame of reference within which she acquires an important role in the community, having foretold an important event on the mountainside, although the reader knows that she had been there for a secret rendezvous (Kingsolver 2012, 54–55). An ecofeminist analysis can thus highlight the process of Dellarobia entering a central social place, the church, a platform that enables her to explain to the community how ecologically informed choices can be economically more beneficial than long-established practices like traditional logging. Tourists bring money to the community, and the butterflies have put the small town on the map. Ecotourism is not treated naïvely; it is a much-needed additional source of income for a town involved in a major transition.

An older generation of women cautiously supports the younger women. Noria's mother is a scientist, forced to work for the central government's university far away. She hints that she may be planning acts of political resistance, but she keeps in contact with Noria as well as she can. Noria's existential reflections over the interweaving of life, death, and water become more prominent as the story, and her own life, draw to an end. Dellarobia's parents are dead, so her husband's family plays the role of the older generation. The mother-in-law is clearly the more progressive of the parents, shown by her acceptance of new methods in sheep farming and in her understanding of the significance of preserving the butterflies. One commonality between the protagonists is the lack of wider support for their environmental concerns. Ecofeminist Greta Gaard (2017) has identified a potential conflict between mainstream climate fiction and ecofeminism by highlighting the recurring heroism, masculinism, individualism, and techno-science-solutions in the genre, as opposed to compromise, species coexistence, and receptivity. Men do play roles as supporting characters to the female protagonists in *FB* and *MW*, but progressive men are uncommon in the novels because they do not represent the common form of masculinity of the storyworlds. Liminal male characters, however, offer the possibility of increased gender equality. Examples are Dellarobia's husband, who finally stands up against his father on the issue of logging, and Major Bohlin, who does his best to protect Noria although he is losing power in the military. Characters representing the dominant masculinity either deny climate change or explicitly exploit nature, women, children, and other subjugated men (see also Furuseth and Hennig 2023, 64–72).

The individual cost is high for the protagonists in their attempts to create the best possible future, but a criterion for a truly critical utopia is that it should tackle serious social and political issues, which Noria's and Dellarobia's dilemmas certainly do. Dellarobia's future/utopia is within reach, while Noria's mission eventually fails.

IDEOLOGICAL CONTESTATIONS

Can contemporary fictional narratives be read as ideological contestations of the current society, as suggested by Moylan? In *FB*, the utopia is not radically different from the book's originary world, as already noted. Instead, deep injustices and utopian alternatives are revealed as being within this world, even if the alternatives are not initially attainable for the protagonist. What legitimizes an analysis of the book as a critical utopia is its contestation of the future direction of development. The story is not only a *Bildungsroman* about the figure Dellarobia; it also paints a picture of the intersecting issues

of gender, education, global and local poverty, and subsequent migration in connection with anthropogenic climate change, thus offering the reader a more complex understanding of the world. Seemingly very small changes in the now of the book have great consequences for the future. For example, on a family level, working for Ovid Byron means that Dellarobia can buy a smart phone that can function as a tablet for her intellectually inquisitive son. On a social and environmental level, changes appear as contested boundaries between environmental interests and economic farming interests shift, increasing the possibilities for positive results for individuals as well as for the community. If the father-in-law were to log the hillside where the butterfly tree stands, the environmental consequences would be devastating, as some of his fellow farmers have already realized. Furthermore, it would also risk causing a landslide that could wash away Dellarobia's house. Toward the end of the story Dellarobia stands knee-deep in water rushing past her house and acknowledges that this is humankind's own doing:

> The ground was spongy with snowmelt and sank strangely under her feet . . . and the whole mountain of snow was melting in a torrent. Every channel gouged in this slope by a long wet winter was now filled to overflowing. (Kingsolver 2012, 429–430)

An analogy for future generations' payment for the costs of current short-term economic interests can hardly be made more pointedly than here in this rural setting.

In *MW*, as the title suggests, the past offers a bridge to the future while the originary society is a result of totalitarian abuse of power and forced inequality. Returning to Moylan's critical utopia as contestation of the current society, the situation in Noria's era has been created by bad choices in the past, that is, the reader's era, which means that actions must be taken now and not in a distant future. The critical utopian element in the story is Noria's refusal to accept the passive indifference that seems to dominate this society of sick and thirsty people. Her rather humble quest to understand water, as well as to acquire real water, is a means to break military control. Noria's thoughts and actions are the engine of the story, and it is clearly the young girl's engagement for water-justice that becomes the crowbar that can pry open the solid, destructive, dystopia described.[3] The story raises questions directed to the reader's world: Can water be owned? Can people stay loyal to their friends and neighbors when in dire want of water? How volatile is society in times of scarce resources? Can one single woman's determination change the course of history?

As an answer to the initial question of this chapter—whether there can be viable narratives for the climate change and the Anthropocene—we might

consider Erin James's suggestion for a "third direction." Like Moyland's method, James regards narratives and the world as co-creative (James 2020, 184). I find this pendulum movement between life, text, and the world to be compelling both in James's and in Moylan's versions; it keeps literary analysis firmly rooted in the complicated social and political sphere, which seems necessary from the perspectives of ecocritical research and environmental activism. However, when emphasizing the reciprocity between real and textual worlds, we also need to observe possible unintended consequences. One example is offered by the so-called "water wars" stories about future water scarcity and armed conflict, as in *MW*. Hannah Boast (2020, 2) writes, "Predictions of water wars seem intuitively plausible," but she emphasizes that there is "considerable evidence of trans-boundary cooperation over bodies of water, including those cited as a 'water wars' risk." The problem is, she continues, that focusing on conflict rather than "actually existing cooperation risks exacerbating tensions by seeming to make conflict inevitable." Thematizing the effects of climate change on real animals can be similarly criticized for scientific inaccuracy, as the author may be interested in symbolic meanings or creating an analogy, rather than serving the reader with zoological facts. The fate of the butterflies in *FB*, for example, is scientifically very unlikely according to ecologist and biologist Karen Oberhauser, whose objection has been used to criticize Kingsolver's fictive story (cited in Sweet 2022, 64). Thus, climate fiction cannot be seen as unequivocally championing environmentalism, nor can it be expected to give an adequate description of the world. Such reservations are often unnecessary for literary fiction in general, but the urgency of the climate crisis forces methodological analysis of climate fiction into a different relationship to the social and the political (see also Lehtimäki 2022).

CONCLUDING NOTE

Literary scholar Krishan Kumar laments the lack of contemporary literary utopias. He regrets that they seem to have been replaced by stories of "apocalyptic struggles or global catastrophes without any real hope that we [humanity] will survive these" (2010, 561). What we risk losing, he concludes, are utopian novels as "vehicles for the expression of the hopes, aspirations, and the schemes of humanity" (564). But as the novels analyzed here show, there is utopian spirit and hope even in contemporary climate fiction (see, e.g., Duffy and Leppänen, 2024). If anything, I think climate change fiction teaches us to live with the unpredictability of future worlds. At its best, the combined interest in climate and in literature manifested in these works can enrich our inquiries into the ethical dilemmas we face, as well as contributing

to narrative innovations as we struggle to grasp and represent the social, political, and ecological consequences of anthropogenic change: "This morning the world is dust and ashes, but not devoid of hope" (Itäranta 2014, 263).

NOTES

1. The following references to *Demand the Impossible* are to the 2014 edition.

2. Coined in 2007/2008 by Dan Bloom. See, e.g., https://www.theguardian.com/environment/climate-consensus-97-per-cent/2017/oct/18/clifi-a-new-way-to-talk-about-climate-change.

3. The book was filmed in 2022 by director Saara Saarela, titled *Memory of Water* in Finnish *Veden Vartia* [The Guardian of Water]. The new audiovisual medium brings interesting aesthetic choices that break with the textual story and the visuals of the book covers. Bleak, bleached white are changed for more visually striking black clothes; the blue circle that marks the boarded-up houses of water-thieves has been changed to red. Also, the male characters are given more importance, and some changes in the story are made.

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Chapter 5

Post- and Decolonial Ecocriticism

How to Read on an Unequal Planet

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Colonialism is not only a social but also an ecological relationship. Colonial power leverages racial categories to justify the oppression and exploitation of some humans, but it does so equally to enable ecological extraction in the places where they live. The disproportionate distribution of the effects of climate breakdown across the world's former colonies attests to the enduring salience of this colonial socio-ecology in the present (Nixon 2011). On the one hand, climate inequality arises from long histories of concentrated extraction and exploitation that have destabilized (post)colonial regions, rendering them exceptionally susceptible to crises in the biosphere (Moore 2000, 412–13). On the other, it is the result of a still-active colonial logic—what Farhana Sultana calls "climate coloniality" (2022, 3)—which provides a calculus for determining whose crises matter and are worthy of redressive action.

This chapter will outline ways of reading literature in the context of this world shaped by the still-colonial organization of societies and environments. As the postcolonial energy scholar Jennifer Wenzel explains, the analysis of literary production should be understood as fundamental, and not auxiliary, to the task of thinking through socio-ecological inequality (2019, 1–2). This is because the relationships out of which the present planetary situation emerges are themselves enabled by powerful and often insidious narratives of race and nature, which make the world legible to extraction, exploitation or strategic neglect. To read literary texts in this knowledge is therefore, first, to consider how fiction lays bare what Wenzel calls "the habits of mind" (18), which grease the wheels of colonialism's socio-ecological machinery, and, second, to reflect on how literature itself participates in or subverts such habits in their wider and more pervasive iterations. This is a view that runs counter to the

notion that literature, as a domain of imaginative speculation, might provide didactic blueprints for how to deal with climate breakdown (Andersen 2020). Instead, it positions literary narrative as an active force among forces, always implicated in the arresting or unfolding of breakdown itself.

The methodologies I examine in the following discussion provide different modes of approaching fiction in a way that is adequate to this agential understanding of literature and colonial socio-ecology. The first draws from the body of postcolonial thought, and specifically on this field's signature gesture of critical excavation. It lays out a method that combines aspects of symptomatic and contrapuntal critique and is assisted by Wenzel's notion of "reading for the planet" (2019, 2). The second engages with decoloniality, as conceived by thinkers associated with the decolonial option (Mignolo and Walsh 2018). It borrows from (but also problematizes) elements of "postcritique" (Anker and Felski 2017), to formulate an approach cognizant of the risk that literary criticism might itself replicate a colonial socio-ecological binary.

In each case, these methodological approaches are illustrated with reference to a corpus of twentieth- and twenty-first-century South African texts. In making this selection, I am guided by the ecocritic Louise Green's observation that, in the context of uneven planetary crisis, South Africa "offers an exposed surface for reading" (2020, 5). In South Africa, the inequalities that contour the global map of climate breakdown appear, in other words, at the scale of a nation. According to the World Bank, the country is the most unequal in the world (2022); poverty remains racialized and (as elsewhere) is an indicator of climate vulnerability (Chikulo 2014). At the same time, South Africa is also the heaviest emitter on the African continent (*Global Carbon Atlas* 2021), the result of a coal-dependency cultivated across the twentieth century, when the mining industry formed the backbone of the economy. Indeed, mining cannot be separated from South Africa's infamous system of legislated racism. As John S. Saul and Patrick Bond point out, the policy of apartheid was modelled on colonial segregations, the purpose of which was to coerce African people into the army of cheap labor required by the mines (2014, 36). Produced in this context, where both the causes and effects of socio-ecological inequality are especially apparent, South African literature offers ample examples of texts that foster the deleterious "habits of mind" Wenzel references, as well as those that interrogate and unravel these narratives. It therefore provides fertile ground for demonstrating the post- and decolonial methods with which I am here concerned.

POSTCOLONIAL READING AND CRITIQUE

Critiques of colonialism rooted in colonized regions long pre-date the late twentieth century. As a critical field, however, postcolonial studies first emerged in the Western academy during the 1970s, and thus in an intellectual climate substantially influenced by the rise of poststructuralist theory and postmodernist cultural production (Gikandi 2004, 98–9). While it is by no means reducible to these bodies of thought, postcolonialism nonetheless shares with them an impulse to interrogate the grand narratives of modernity and does this specifically from the vantage of the (post)colony. Beginning from the premise that such apparently laudable notions as "progress" and "civilization"—and more recently "development" and "growth"—are deeply implicated in the colossal socio-ecological violence of the colonial project, postcolonial thinkers have looked with incredulity on hegemonized Western knowledge and culture, asking how this has been used to legitimate domination and exploitation, and to erase certain histories and experiences.

Critical gestures of excavation, exposure and retrieval have thus been central to postcolonial scholarship, serving as mechanisms through which to undermine the Enlightened self-image of Eurocentric thought and to identify the discursive maneuvers through which this self-image is sustained. In reflecting on postcolonial—and postcolonial ecocritical—reading, these same gestures provide a useful starting point. One way of conceptualizing a postcolonial literary methodology is to understand this as a reading practice that critically embeds fiction in those grand narratives of colonial modernity. Such a method would ask how literary imaginings serve the agenda of the colonial project through strategic silences, elisions or misrepresentations, or how they themselves seek to interrogate these imaginings, by exposing relationships and histories that have been obscured.

Thus conceived, postcolonial reading is a kind of "symptomatic" method. Deployed, as we shall see, by Edward Said and Wenzel herself, symptomatic reading received its most influential twentieth-century elaboration in Fredric Jameson's *The Political Unconscious* (1981), where the author argues that a text's "rifts and discontinuities"—its unexplained gaps or stylistic lapses—provide the critic with points of entry into what it is trying *not to say* (2002, 41). The claim rests on a view of narrative as an ideologically inflected and therefore partial response to the historical conditions in which it is produced; accordingly, Jameson sees rifts, or gaps, in fictional texts as marking the places where aspects of these conditions have been omitted (through "mystification or repression") in the name of maintaining ideological coherence (45). Interpretation, he summarizes, consists in "rewriting . . . the literary text in such a way that [it] may itself be seen as the rewriting . . . of a prior

historical or ideological subtext, it being always understood that the 'subtext' is not immediately present as such . . . but rather must itself always be (re)constructed" (67). This already textualized subtext is the "political unconscious," of which moments of narrative disunity are the symptoms.

Culture and Imperialism (1994), Said's now-canonical methodological intervention in postcolonial literary studies, takes cues from Jameson but also moves beyond his framework for symptomatic reading by providing "adumbrations of the actual world in which the novels take place" (Said 1994, 73). For Said, this means reframing "Western cultural forms" beyond "the autonomous enclosures in which they have been protected" and integrating them instead into "the dynamic global environment created by imperialism" (51). By reading "*contrapuntally*" (51; emphasis in original)—with an awareness of both metropole and colony—Said brings to the fore colonial relations which, though they sustain the lifeworlds depicted in metropolitan cultural production, are, as he puts it, "usually suppressed for the most part" (51). Symptomatic gaps and absences in the works of the Western canon are thus shown to relate frequently to issues of colonization, a point Said demonstrates by linking Jane Austen's *Mansfield Park* to sugar plantations in colonial Antigua. The relation is drawn out—as it is in Jameson's view—by attending to conspicuous absences in Austen's prose: "*Mansfield Park* sublimates the agonies of Caribbean existence to a mere half dozen passing references to Antigua" (59), and this despite (or rather because of) the fact that Antiguan slavery is central, both specifically and in general, to the society the novel depicts.

The example of Austen and the plantation begins to show that symptomatic reading serves an ecocritical, and not only a postcolonial, project, because it foregrounds how the colonized regions sustaining metropolitan life worlds (and metropolitan cultural production) are sites of both human exploitation and ecological extraction. Emphasizing these ecocritical possibilities, Wenzel's method of "reading for the planet" (2019, 8) builds on Said's contrapuntal approach and revises it with contemporary socio-ecological inequality in mind. Following the spatial logic of Said's analysis, its tacking between colony and metropole, reading for the planet entails moving from sites of relative ecological stability to those decimated by extraction and already unfolding crisis. In this way, it illuminates "relationships among nature, culture and power" that in certain fictions may lie "just outside the [narrative] frame" (Wenzel 2019, 12). The method thus helps to foreground what Wenzel calls the "work of unimagining," which structures the constitution of socio-ecological lifeworlds in novels such as *Mansfield Park* and may be visible only as a symptomatic trace on the surface of the narrative. Such symptoms, Wenzel writes, mark "an inability or refusal to imagine across geographic, temporal or experiential divides" (19) and so provide points of departure for

asking how literary narratives "make environmental crisis legible or reinforce habits of mind that render distant crises unimaginable" (18).

In the following discussion, I consider two texts in light of the contrapuntal and symptomatic method described above. The first, J. M. Coetzee's *White Writing* (1988), is itself a work of criticism, which deploys a Jamesonian reading practice to identify racialized absences in the early-twentieth-century settler genre of the South African farm novel, or *plaasroman*. Examined in light of Wenzel's ecocritical contrapuntal approach, the symptom Coetzee identifies with a colonial system of labor becomes legible as a silence relating to a wider set of socio-ecological relationships, in which racialized exploitation is inseparable from ecological extraction. The second text, Nadine Gordimer's novel *The Conservationist* (1974), is a narrative that engages with the racially charged genre of the plaasroman and approaches it with an explicitly ecocritical and excavationist agenda. Gordimer's text seeks to undo what Wenzel has called the "work of unimagining," by foregrounding how environmentalist discourse serves the unequal distribution of land under apartheid, and then subjecting this discourse to disruption through the retrieval of socio-ecological histories that have been placed beyond the colonial narrative frame.

POSTCOLONIAL ECOCRITICISM

In the most famous sections of *White Writing*, Coetzee's analysis of South African landscapes in pre-apartheid art and literature, the author addresses the plaasroman as a paradigmatic example of what he calls "white pastoral" literary production (1988, 11). Popularized through the work of Afrikaans-language writers such as C. M. van den Heever, this form gained prominence across the 1920s and 1930s, on the heels of Britain's victory over the (Dutch-descendent) Afrikaner settlers during the Boer War (1899–1902). It therefore appears during a period of significant socio-ecological transformation in Southern Africa. The rise of gold and diamond mining in the late nineteenth century had prompted a widescale commercialization of agriculture, and this in turn was threatening the existence of established small-scale Afrikaner farms. Struggling to survive in the new economy, peasant farmers were increasingly forced to cede their land to the agro-industrialists and thereafter to join the ranks of a "landless white proletariat" (Coetzee 1988, 6). As Coetzee shows, the plaasroman responds to these processes of dispossession and proletarianization with nostalgic and idealizing visions of the peasant way of life, in which hardworking communities of Afrikaner settlers are shown laboring across generations to transform the arid South African earth into an abundant pastoral idyll (1988, 5–6).

Coetzee's argument hinges on this vision of the industrious peasantry: scenes of hard work function in the plaasroman to assert the threatened Afrikaner farmer's transcendental—or natural—right to the earth, which implicitly trumps the counterclaim asserted by the (British) mining capitalist or agro-industrialist. As Coetzee writes, the plaasroman's peasant farmers "pay for the farm in blood, sweat, and tears, not in money" (1988, 85), meaning that, in the lifeworld established by these narratives, "the work of hands on a particular patch of earth . . . is what inscribes it as the property of its occupiers *by right*" (5). The plaasroman therefore positions itself in a South Africa chiefly shaped by Afrikaner and British settlers vying for control of the land (Coetzee 1988, 6) and insists on the illegitimacy of the latter's claim, which is enforced through the former's dispossession and induction into the wage economy.

This last point is important to the contrapuntal ecocritical rereading of Coetzee I will pursue momentarily. For now, it needs to be noted that, for Coetzee, the hardworking Afrikaner peasantry also provides the key for reading what he identifies as the plaasroman's conspicuous silence—a "rift" in Jameson's sense—on matters of race. In the idealized agrarian order, Coetzee observes, African characters feature as little more than "shadowy presence[s] flitting across the stage now and then to hold a horse or serve a meal" (1988, 5). The studious lack of attention stands out with particular clarity in the early-twentieth-century South African context, where increasingly formalized racial categories were stratifying society in ever more pervasive ways. As Wenzel notes in her own analysis of the plaasroman, the genre in fact appeared at a moment when the labor on existing Afrikaner farms was largely performed by African people (2000, 94). Here, then, we arrive at the symptom around which Coetzee's analysis revolves, and which, in Jamesonian style, offers the critic a point of access into what the plaasroman is trying hard not to say. For if it is, as the farm novel insists, through hard toil that a transcendental right to the earth is established then, in Coetzee's formulation, "the hands of black serfs doing the work had better not be seen" (1988, 5). From the symptom of race, Coetzee thus excavates an unspoken history of colonial labor, which, if it were acknowledged, would disrupt the white pastoral's ideological assertion of an Afrikaner right to the land.

The ecocritical possibilities of this reading become visible with the contrapuntal approach that Wenzel advocates. Such a move broadens the frame of inter-settler (British-Afrikaner) rivalry within which the plaasroman studiously places itself, to include the contemporary socio-ecological situation of colonized African people. This wider purview would incorporate the gold and diamond mines, and specifically the segregations and dispossessions implemented to coerce colonized people into the ranks of the massive workforce these required. As early as 1894, the Glen Grey Act laid out the foundation

for a reserve system, confining Africans to certain earmarked territories, where strategically levied taxation then forced them into the mining proletariat (Crais 2011, 144). A further watershed moment arrived in 1913, with the passing of the infamous "Native Land Act." This illegalized the widely obtaining agricultural system of sharecropping, in which African people occupied farmland alongside white settlers, while also preventing Africans from purchasing property outside of the reserves. Consequently, African farmers were either driven into these segregated areas (where taxation subsequently propelled them into labor on the mines), or they were forced to take up (poorly) waged work, often on the very white-owned farms into which their own land had been incorporated (Wenzel 2000, 98).

Reading contrapuntally between the white peasant farm, the extraction site, and the African sharecropper's land therefore reveals a complex set of socio-ecological relationships, largely constructed around the gold and diamond mine, which underpins the presence of the African laborer on the Afrikaner farm in early-twentieth-century South Africa. What such an approach makes clear, furthermore, is the close symmetry between the situations of Afrikaners and Africans. As we have seen, the plaasroman responds to the dispossession of the small-scale white landowner by agro-industry and their subsequent coercion into wage labor. At the same historical moment, however, African people were increasingly forced off their land and into the agricultural or mining proletariat. These two sets of circumstances are separated only by the institutionalized prioritization, rooted in colonial logic, of settler over colonized populations: White farmers were the direct beneficiaries of African people's escalating oppression, both as the recipients of their land, and because, as Wenzel notes, the decline of the African farmer heightened the competitiveness of white farmers' agricultural produce in the newly stringent commercial market (2000, 93). This history profoundly destabilizes the plaasroman's fundamental distinction between the Afrikaner peasant farm and the system of (British) capitalism, which pivots on dispossession and proletarianization. Once the situation of African labourers is brought contrapuntally into the analytical frame, it becomes clear that, far from standing in opposition to agro-industry, the small-scale Afrikaner farm was in fact reliant on the same processes (dispossession and proletarianization) associated with agro-industry and deemed illegitimate in the plaasroman.

If, as Coetzee argues, the plaasroman's silence on matters of race is the symptom of an unacknowledgeable colonial system of labor, then a contrapuntal reading that takes in the mine and the sharecropper's farm reveals that such symptoms can be understood as more than traces of social processes. They emerge, more fully, as marks of the socio-*ecological* unimagining to which Wenzel refers. Writers of the plaasroman must, in other words, unimagine both the African laborer, *and* the reconfiguration of society and

environment that brings them onto the Afrikaner farm, because not doing this would collapse the ideological distinction that validates one settler faction's claim to the land over the other. From all of this, the white pastoral emerges as a formative example of those species of narrative which, paraphrasing Wenzel, reinforce a racialized calculus of what and who counts in the context of social and environmental harm. To serve its ideological agenda, the plaasroman shunts African people's experiences of widely deleterious socio-ecological transformations beyond the narrative frame. A contrapuntal and symptomatic reading renders that frame both visible and newly porous, however, thereby establishing the conditions of possibility for a counternarrative of socio-ecological justice.

Nadine Gordimer's *The Conservationist* can be understood as an effort to produce such an alternative narrative, and to do so, as I shall show, through the incorporation of symptomatic and contrapuntal strategies into the literary imaginary itself. Wenzel's method of reading for the planet assists in making these tactics visible in the text, helping to foreground the mechanisms through which Gordimer both highlights and redresses the work of socio-ecological unimagining. *The Conservationist* serves, notably, as an inspiration for Coetzee's argument in *White Writing*: The novel allegorizes the earlier plaasroman's exclusion of colonial history through the central metaphor of an African man's body buried in a white-owned farm (Coetzee 1988, 11). The corpse is an avatar for the dispossession and exploitation silenced by white pastoral literature, and as such it does not rest easy in expropriated ground. Across the narrative, the farmer and protagonist, Mehring, is subject to troubling psychological encounters with the dead man, and eventually the body reappears during a storm. The idyllic pastures of Mehring's farm are subsequently thrown into chaos, and the protagonist flees the property in a state of mental disintegration. The retrieval of a (literally) submerged colonial history thus puts paid in the novel—as it does in Coetzee's analysis—to the white settler's claim to the land.

As the poetics of haunting and excavation suggest, a symptomatic strategy is central to Gordimer's narrative, and it is mobilized, ultimately, to explode the discourses through which Mehring justifies the highly racialized socio-ecological organization in which he exists. Uncanny interludes inexorably draw the protagonist's mind "down there" (Gordimer 2005, 40–1), marking his liminal awareness of the body in the land. The symptom of racial oppression is thus inscribed on the narrative surface as a signal of Mehring's refusal to fully acknowledge the legacy of dispossession out of which his ownership of the farm emerges. A contrapuntal dynamic is deployed to further affirm and underscore this history: Gordimer strongly elucidates Wenzel's point, itself drawn from Said, that "one place is always imbricated with another" (2019, 8). In *The Conservationist*, this imbrication

encompasses, on the one hand, the farmer's expansive four hundred acres of land, and, on the other, the overcrowded "location" that fringes his pastures, where 150,000 African workers live. Moving between the "fair and lovely place" of the farm (Gordimer 2005, 219), and the slum on its periphery ("the location is like the dump" [93]), the novel emphasizes that the former can only exist because of the latter. Mehring's property is, we are reminded, a consequence of racialized land allocation dating back to the Land Act and maintained with the labor of the location's occupants.

As Mehring's haunting by the body suggests, these are facts that he would rather not face. Instead, he prefers to think of his possession of the farm as an act of environmental service, and throughout the narrative he can be found pedantically conserving "nature." We learn, for example, that he "never leaves so much as a cigarette butt lying about to deface the farm" (Gordimer 2005, 43), and, following a minor altercation with the farm workers' children over some guinea fowl eggs, he wildly extrapolates a vision of ecological apocalypse: "soon there will be nothing left. In the country. The continent. The oceans, the sky" (3). As this scenario begins to demonstrate, Mehring's conservationism is not racially neutral: He is, he complains, "forever cleaning up after" the farm workers, who regularly tarnish the property by "discard[ing] plastic bags and put[ting] tins beside tree-stumps" (43). Indeed, when the winter "time of conservation" arrives, Mehring is chiefly occupied with mending fences. This is supposedly to prevent an influx of garbage from the location—"newspaper, ash, bones and smashed bottles" (92)—but the fences also keep people out. "NO THOROUGHFARE" reads the sign affixed to the farm's perimeter; directed at residents of the nearby "shanty town," it has ostensibly been put up out of "a concern for the land" (93).

In a discussion of the "Eurocentric conservation" practices dominant in South Africa across the twentieth century, Farieda Khan identifies in these an abiding "perception of blacks as environmentally destructive" (2002, 15). The notion was used, Khan shows, both to justify the eviction of African people from so-called conservation areas and to validate their reincorporation in the parks system as workers in "menial roles" (18). Conservation rhetoric functioned in this way to entrench a socio-ecological organization founded, as Khan writes, on "[w]hite privilege, power and possession" (15). At the same time, and crucially, it also provided an acceptable face for this racist agenda, in the form of the seemingly laudable intention to protect nonhuman nature. Mehring's conservationism is clearly legible in these terms, as an attempt to sanitize and validate his ownership of the farm. As Rita Barnard observes in her own reading of Gordimer's novel, the protagonist's "concern for nature actually stands for something else: a possessiveness he would rather repress, or at least aestheticize" (2007, 82).

Viewed in this light, Mehring's studious efforts to collect litter and mend fences become newly legible as counter-contrapuntal acts of unimagining. They are efforts, in other words, to deny the relationship between farm and location, and consequently to shift out of sight the legacy of dispossession and exploitation underpinning the protagonist's status as proprietor of his four hundred acres. It is apt, then, that when the body reemerges as incontrovertible evidence of the farm's colonial origins, Mehring's pristine pastures are invaded by all the trash he has sought to keep at bay. The corpse appears along with a range of less organic items: the "neck of a bottle," "the leg and broken back of a chair," "the door panel of a car curved like the chest-wall of a living creature" (Gordimer 2005, 286). The protagonist's sense of the farm as an area where nature is preserved is therefore thoroughly undone, and with its disappearance, a key justification for his ownership of the land collapses. Hence, his exit from the narrative is also his exit from the farm. He leaves in a panic: "No no. No no. Back to town" (302).

DECOLONIAL READING AND POSTCRITIQUE

What if the critical method of excavation demonstrated in the preceding readings were to replicate the colonial logic of mastery itself? This provocative question has been raised by Matthew Docherty, who argues that the symptomatic method instantiates a relation of domination and exploitation between reader and text (2022, 957–8). Docherty's suggestion alerts us to the possibility that, in the process of seeking out and addressing historical gaps, the reader might transform the narrative into an object to be mined, thereby reinscribing the very socio-ecological binary that underpins the colonial project. Considering this possibility, the following discussion draws from (but also problematizes) "postcritical" methods (Anker and Felski 2017), in order to formulate a decolonial practice for reading fiction in the context of colonial socio-ecology.

Though it shares postcolonial studies' critical orientation to colonialism, the field of decoloniality (also called the decolonial option) emerges within a different intellectual tradition. Its scholarly roots lie in Latin America, with world-systems and "dependency" theory, which emphasize the still-inextricable relationship between colonialism and capitalism that has existed since the colonization of the Americas in 1492 (Mignolo 2002, 57–9). Drawing on world-systems thinkers such as Immanuel Wallerstein (2004), decoloniality analyses capitalism as a transregional system of uneven development, which instantiates a division of labor and biophysical extraction between (colonial) periphery and (metropolitan) core. This system has always required the support of epistemic structures, as decolonial theorists Aníbal

Quijano (2000) and Silvia Wynter (2003) have shown. On their accounts, the dualism of subject and object that emerges during the Renaissance and Enlightenment cannot be understood outside of Europe's colonial project, which transformed peripheralized regions into sites of cheap labor and raw materials. For Quijano and Wynter, the binary logic that grounds Western thought develops and acquires a specifically racialized and ecological character in these colonized contexts, where it functions to justify the treatment of some humans and the rest of nature as plunderable or disposable resources.

As Wynter notes (2003, 260–1), this analysis sheds light on contemporary socio-ecological inequality, which becomes legible as an effect of the enduring conjunction between capitalist development and Eurocentric knowledge, an alliance Quijano names the "coloniality of power" (2000). The problem of environmental degradation is thus shown to be at one and the same time a problem of colonial oppression: Both are enabled by the same Eurocentric worldview, which opposes the human subject to "nature" as a realm of objects, and to other (racialized and gendered) humans, who are deemed closer to this lesser domain. The project of decolonial ecocriticism—as-yet an emerging field—is to undo and reconfigure this colonial cosmology of humans and nature. As Angela Hume and Samia Rahimtoola put it, decolonial ecocriticism "seeks to unsettle normative and Western-centric ideas about environmental consciousness" (2018, 142) and does so in the interest of decolonizing the world: remaking it in more just and egalitarian ways.

Central to the practice of decoloniality as it is conceived within the decolonial option is the recognition of what Walter Mignolo calls the "geopolitics of knowledge" (2002, 61). The concept helps to illuminate the specificity of Western thought, which—though it is one cosmology among others—is uniquely implicated in the making of the Eurocentric world and has been hegemonized as a result of colonization. Despite its transregional reach, Eurocentric knowledge should not be thought of, Mignolo emphasizes, as simply homogenizing or evenly experienced. Rather, it is fractured by "the colonial difference" (2002, 58), a term which describes the different perspectives available from either side of the colonizer-colonized divide. For the beneficiaries of Eurocentrism, its contingent and partisan nature might not be immediately apparent; from the point of view of the colonised—subject to racism, ecocide and cultural suppression—it has always been more readily discernible as a violent and artificial imposition, which emanates from and works in the interests of colonial powers. A first step in the decolonial project therefore lies in redressing the hegemony of Eurocentric knowledge, by centring (post)colonies as sites of knowledge production—or "loci of enunciation" (Mignolo 2002, 63)—from which vantage privileged insight can be gained into the mechanics and effects of coloniality.

These effects involve material exploitation and extraction, but also, importantly, cosmological and epistemological erasure. The binary matrix of Eurocentric thought is epistemically exclusionary: As it enables the objectification (and subsequent exploitation) of some humans and the rest of nature, it simultaneously delegitimates and dismisses the preexisting worldviews and forms of knowledge of colonized peoples. A second step in the decolonial process—one related to the first—is therefore to address this epistemic violence, by fostering the potential "re-existence" of forcibly suppressed ways of being and knowing (Mignolo and Walsh 2018, 173). Understood in a specifically ecocritical sense, decoloniality thus seeks to amplify non-Eurocentric socio-ecological frameworks, in this way laying foundations for a world not built on the colonial binary of human and nature.

Given that recognizing the geopolitics of knowledge is a key aspect of decoloniality, any reading methodology pursuing a decolonial agenda should begin with a reflection on the extent to which Eurocentrism, institutionalized within the Western university, pervades critical practice in literary studies. Though he does not himself draw from thinking around the decolonial option, Docherty's own theorization of decolonial reading sets out the stakes of this situation with clarity: "[C]ritics cannot hope to engage fully with a text's anti-colonialist politics or poetics if their approach . . . embodies colonialist thought" (2022, 958). As we have seen, Docherty views "critique," and so symptomatic and contrapuntal reading, as paradigmatic of this kind of critical colonialism. He suggests that the method inculcates in the critic an "imperialist attitude," encouraging them to mistrust the text in a way that resembles the colonial dismissal of non-European cosmologies and to use this suspicion as an excuse to exploit the narrative for its "epistemic resources" (957).

As I will elaborate below, I am less thoroughly convinced than Docherty by this strong equation of critic with colonizer. However, the point that the critical method may not be appropriate to certain reading instances is worth considering, especially in light of the decolonial injunction to attend to perspectives and forms of knowledge systematically deprioritized by the hegemony of Eurocentric thought. If, as Docherty is suggesting, critique places the reader in a position of exaggerated mastery relative to the text, then, in some cases of reading across the colonial difference, it seems possible that such a method might frustrate the decolonial objectives of recentering insights from the periphery and fostering the re-existence of suppressed cultural forms.

For an alternative to critical reading praxes, Docherty turns to the body of scholarship on literary methods termed "postcritique" by Rita Felski and others (Anker and Felski 2017), a key aim of which is to explore and theorize ways of reading characterized less by critical mistrust than by receptivity. For Felski, such openness is made possible through a suspension of the "hermeneutics of suspicion": that mode of interpretation which (as in her view of

symptomatic practice) locates "meaning . . . beneath or to the side" of the text, "encrypted in what the literary work cannot or will not say" (2009, 28). Hence, postcritique demands that the critic read *with*, rather than against, the grain of the text, taking what is present at face value. Felski calls for a "willingness . . . to describe rather than prescribe, to look carefully at rather than through appearances," while at the same time attending to the "intricate play of perception, interpretation, and affective orientation" that takes place in the reading encounter (31).

In Felski's parlance, this sensitivity to reader-text interaction constitutes a "neophenomenolog[ical]" approach (31), and writing elsewhere, she clarifies the "relational ontology" presupposed by such a view. Neophenomenology understands the text not chiefly as a representation of something else but more fully as a co-created assemblage, which dissolves the "art-society opposition" (2016, 761). The notion is drawn in part from Bruno Latour, who, in his influential "Has Critique Run Out of Steam?" (2004), called for a scholarship that foregoes the view in which studied material becomes an object of analysis. In place of this approach, Latour asks that the critic attend to the multiple processes—social, cultural, material, epistemic, etc.—through which such material is constituted as a "gathering" (2004, 233).

As Rikard Wingård proposes elsewhere in this collection, these methods lend themselves to an ecocritical agenda, in that they enable modes of "holistic" reading not premised on the human-nature binary. Since this dualism is inseparable from the colonial project, as Wynter and Quijano argue, postcritical approaches also resonate suggestively with decolonial objectives. Docherty's own assertion that postcritique is decolonial hinges on something like this point. Because such a reading practice suspends the suspicious mastery of the reader over the text, and because it conceives of the text itself as a gathering or assemblage (and not an object), a postcritical approach cultivates "readings that accept [the narrative] non-appropriatively and non-reductively" (Docherty 2022, 962), thereby forestalling the possibility that, in reading, the critic replicates "the imperial mechanics of conquest, subordination, dismantling, and extraction" (959). These proposals provide a useful starting point for theorizing a decolonial method; however, I would argue that on their own, they are not sufficient. Postcritique is, in other words, not identical to decoloniality. Indeed, critique is, in certain instances, a necessary part of the decolonial project, and the point is significant enough to be worth briefly considering.

Docherty himself allows for a plurality of reading praxes, when, in his argument's conclusion, he suggests that "the postcritical tendency might augment the range of textual approaches available to a scholarly reader" (2022, 965). This notwithstanding, however, critique remains assimilated to colonialism across his outline of a decolonial method, with the result that

major aspects of anticolonial and postcolonial literary scholarship have to be dismissed as replications of a colonial logic. In what Docherty describes as a "perhaps provocative" reading of Edward Said, for example, Said's advocating of "a critique from below that seeks to redress power imbalances" becomes "the kind of failed wielding of the master's tools against which Audre Lorde warned" (958). Similarly, Chinua Achebe's famous critique of racism in *Heart of Darkness* (and in Conrad's critics) is taken to be an effort "to subdue the text and claim authority to pronounce upon its meaning," which "utilis[es] the privilege of the critical form to assert meaning on behalf of . . . [the] text" (966).

More questions emerge out of these points than I have space to address here. For now, it will do to ask whether Said's suspicion for the system of colonialism is really the same as the suspicion exercised by the colonizer toward the colonized, and similarly: To what extent is it reasonable to treat *Heart of Darkness* as an analogue for persons subject to colonial racism? Rather than demonstrating the inextricability of critique and colonialism, Achebe and Said seem more clearly to provide robust evidence that critique is *not* colonialism. Indeed, understood with decoloniality, these writers' interventions demonstrate the decolonizing possibilities of perspectives available from the underside of the colonial difference. They offer a view on modernity that illuminates the coloniality by which it is sustained, and in this way perform the task—vital to the decolonial project—of making the geopolitics of Western knowledge visible and available to reconfiguration.

Postcritique and decoloniality part company, then, in their estimation of the importance of the colonial difference. From the postcritical perspective Docherty advocates, it makes no odds where one is situated in relation to Eurocentrism: The techniques of critique remain colonizing regardless of whether they are directed against colonialism from below or in support of colonialism from above. Such a flattened view of the world is untenable from a decolonial vantage because, as we have seen, decoloniality takes the material and epistemic injustice perpetrated by the coloniality of power as the assumed ground on which any further analysis is based. A decolonial reading practice therefore begins, of necessity, by locating the reader-text encounter in this uneven context; with that proviso firmly in place, isolated techniques borrowed from postcritique may yet be useful.

I will now examine how such techniques work in a brief discussion of "Lament for Mount Luvhola," by the Xitsonga poet and author Vonani Bila. The methodology for decolonial ecocriticism that I employ in this analysis unfolds through two, broadly chronological phases. The first phase involves reflecting on how my engagement with Bila's narrative maps onto the colonial difference and asking—with Docherty's argument in mind—what consequences this has for methodology. As we will see, the question is especially

relevant to "Lament for Luvhola." The text examines the routine dismissal of African spirituality as central to apartheid's social and environmental violence, meaning that the postcritical imperative to suspend suspicion and read with the grain here acquire a specifically decolonial and ecocritical valence. The second phase of the discussion involves an effort to address the text as more than simply an object of analysis, by attending both to its internal multiplicity and to the strategies through which the reader is positioned and incorporated. This approach foregrounds reader-text relationality in the way Felski intends; however, it also sheds light on ontological principles embodied in the narrative, which exceed the modes of being and knowing imposed through coloniality. Postcritical techniques therefore assist in illuminating a strategy of reexistence in the text, which draws on an African socio-ecological cosmology to decolonize the Eurocentric binary of humans and nature.

DECOLONIAL ECOCRITICISM

"Lament for Mount Luvhola" appears under the heading of "Real-Life Hauntings" in Niq Mhlongo's anthology of short fiction, *Hauntings* (2021). The eponymous mountain lies east of Bila's hometown of Shirley, in South Africa's northeastern Limpopo Province. Luvhola thus falls within what was, between 1969 and 1994, Gazankulu homeland: the territory zoned for Tsonga people (Vatsonga) under the apartheid state's segregating Group Areas Act. Significantly for Bila's text, the invention of Gazankulu entailed the forced removal of Venda people (VhaVenda) from this area, though, as the author notes, this in fact began in 1966 and 1967, when VhaVenda were evicted to make way for commercial timber plantations. Bila's narrative opens with a reflection on the importance of Luvhola in Venda culture. As he explains, the mountain is central to both religion and agriculture: It is "the mountain of the ancestors" and the foundation for local relationships with the land, serving as a weathervane that guides the farming of key crops (Bila 2021, 41–2).

The body of "Lament" concerns the ways in which this intertwining of cosmology and ecology has been disrupted by a devastating mudslide, which took place without warning on 6 March 1977. The debris and water flowed rapidly down the mountain, destroying surrounding villages and leaving a still-indeterminate number of people dead. Over the course of the narrative, Bila assembles accounts of the disaster from various members of the affected Venda and Tsonga communities, drawing also on his own personal history in the region. In this way, the narrative writes into an enduring silence around the catastrophe, which local people have long been seeking to redress through (still unmet) requests for memorials to honor the dead. Bila's "Lament" can

therefore be understood as performing the act of remembrance thus far denied to communities affected by the disaster.

The recounted stories engage with the event in different ways. Some offer causal explanations, referring by turns to transgressions perpetrated against sacred sites, meteorology, and—in one instance—a meeting with zombies. Others report on how the mountain is encountered in the aftermath of the mudslide, as a site populated by angry spirits or the fearful "ghosts of those who had suffered violent murder, accidents, and suicides" (Bila 2021, 48). The text concludes with a powerful socio-ecological image of the enduring coloniality of power. The reader learns that, several decades after the disaster (and after Gazankulu has ceased to formally exist), the persistent prioritization of commercial interests over those of local communities is leading to the extreme degradation of the mountain and of the culture and livelihoods of those living around it: "Luvhola has been left naked. Deforestation eats into its biodiversity and sacredness. With unemployment soaring, leaving families high and dry, it is not surprising that men and women head toward the mountain to chop down trees to sell" (49).

In a key sense, Bila's narrative calls for an approach that is sensitive to the colonial politics of reading, since it is itself concerned with amplifying experiences and accounts of the mountain that have been routinely dismissed, at least since the apartheid-era plantation took priority over VhaVenda's spiritual connection to Luvhola. As Bila shows, these same accounts continue to go unheard into the present. The failed requests for a memorial to the tragedy correspond to unheeded calls for infrastructure to protect communities around Luvhola from future disaster (made all the more likely, surely, by extreme deforestation). "[P]eople dream of channels and barriers that can divert . . . the flow away from houses, cattle kraals, clinics and schools" (2021, 50); however, these measures remain as-yet fantasies.

In the context of Bila's narrative, the notion of reading without suspicion, therefore, acquires a particular political significance, working against the systemic discounting to which the voices of those most affected by the disaster have been subject. Since the neglect of these voices is bound up with the wider system of racism that forms the premise for Gazankulu, and the system of apartheid generally, such an approach to the text also aids in subverting the institutionalized scepticism through which Eurocentric knowledge subordinates other ways of being and knowing. This potential is especially pronounced in instances of reading from the colonizer side of the colonial difference. For myself, and for readers sharing my locus of enunciation—white, born and educated in South Africa—heeding the postcritical injunction to affirm the text's sovereignty over its own meaning is, I would venture, the only way of reading this narrative that might serve a decolonial agenda. To do otherwise would inevitably risk perpetuating not only a generally colonial

logic, as in Docherty's account, but also the very specific relationship of marginalization to which Bila's narrative calls attention.

"Lament for Mount Luvhola" in fact encourages an awareness of the different epistemic positions occupied by different readers, since elements of careful cosmological exposition and glossing are provided alongside cultural and linguistic references throughout the narrative. Readers familiar with Venda or Tsonga culture will likely not, for example, require the overview of Mount Luvhola's spiritual significance with which Bila opens the narrative; nor will they need to be informed that "Luvhola" means "bee sting" or that "*thavha ya vhadzimu*" translates to "mountain of the ancestors" (41). Such gestures of deliberate clarification emphasize, for the unacquainted critic, the limits of their own situated perspective. At the same time, however, they also conspicuously permit this reader entry into the text, and, more specifically, into the series of conversations with survivors through which the "Lament" is produced.

The result is a text that foregrounds its own process of composition (which takes place precisely through what Latour might call a "gathering" of stories) while also underscoring the presence of a reader in the narrative encounter. Here again, Bila invites the kind of approach advocated by postcritique. The terms in which the narrative presents itself resist the dynamics of distance and objectification, instead placing the critic's reading amid the variety of narratives collected by Bila and suggesting, ultimately, that it is through this multiplicity of nonetheless differentially located enunciations that the "Lament for Luvhola" is co-produced.

Framing the text in this way, as a multivocal co-production, is especially salient to a decolonial ecocritical reading, because it helps to foreground a project of socio-ecological decolonization at work across the piece. As we have seen, the postcritical view of narrative as more than simply an object for analysis is intended to account for the relational processes that shape reading encounters and that are potentially overlooked in a thoroughgoing act of critique. Felski conceptualizes this relationality through the general lens of neophenomenology; however, as Harry Garuba has shown, principles of relationality also provide the ontological basis for many non-Eurocentric cosmologies, including in cultures across the African continent (2003, 270). By explicitly emphasizing the assembled nature of narrative, a postcritical approach therefore calls attention to aspects of the text that embody ontologies which exceed the ways of being and knowing prescribed by coloniality, and which—in the specific case of "Lament for Luvhola"—unravel Eurocentric conceptions of society and nature.

In Bila's narrative, these possibilities begin to shift into focus on recognizing that the same elements of the text which reveal it as an assemblage (its dialogic structure and basis in live exchanges) also reflect the oral culture

in which African literatures are rooted. Orality, as Ato Quayson elaborates, "is not just a mode of speech different from writing but undergirds an entire way of life" (2009, 159). More specifically, it dramatizes a different ontology to the subject-object split that grounds Eurocentric thought: The recounted narrative is not, in other words, purely representational. Its primary function is not to refer to a preexisting object but to perform an act of enunciation, which, in each instance of telling, reproduces the cosmology of which it is one part. "Ontologies shaped by orality," Keyan G. Tomaselli and co-authors summarize, "assume that the world consists of interacting forces . . . rather than of discrete, secularised objects (1995, 19). This worldview is embodied in the oral structure of Bila's text, but it is also depicted across the narrative, in those tales which identify the causes of the mudslide in transgressions in the spirit plane or detail the spiritual ramifications of the disaster itself. These narratives depict a cosmology in which the material and spirit worlds are intricately interrelated, revealing the "objects" visible from a Eurocentric perspective as inseparable from a wider web of connecting forces.

As Garuba points out, such an "animist" view of the world has implications for "issues of ecology and the environment" (2012, 1), since it eschews the Eurocentric binary which renders some humans and the rest of nature open to exploitation and extraction. In important ways, Bila's narrative would seem to confirm the point. Though the text offers a range of potential causes for the 1977 mudslide, without explicitly endorsing any, the enclosure of the mountain as a timber plantation—the progenitor of subsequent commercialization and deforestation—looms large as the condition out of which all the other disruptions, both socio-ecological and spiritual, emerge. "No one owns a mountain" (2021, 48), the text pointedly insists, and in conclusion, Bila tacitly positions the fate of those living around Luvhola as the consequence, not so much of a *natural* disaster but of ecological injustice. Along with infrastructure to prevent further catastrophe and adequate commemoration of the tragedy, he also calls for "economic reparations for damages they [the Luvhola communities] suffered" (50), the implication being that responsibility lies precisely with those who have sought to capture the mountain in a proprietary relationship.

This indictment of enclosure and extraction illuminates the gesture of ecological decolonization at work in Bila's text. The relational ontology depicted across tales that intertwine spiritual and material worlds becomes legible as a mode of reconfiguring the objectifying vision of nature out of which the disastrous events catalogued by the text erupt. The orality of Bila's narrative further embodies this relational ontological principle, affirming and reproducing the cosmology it underpins in an act of enunciation, so that as the text remembers the improperly memorialized tragedy of Mount Luvhola, it simultaneously reasserts—or, in decolonial parlance,

re-exists—the socio-ecological ways of being and knowing on the systemic dismissal of which this forgetting, and the tragedy itself, is premised.

CONCLUSION

This chapter began with the assertion that literary analysis matters in efforts to understand and address contemporary socio-ecological inequality, because such inequality emerges from colonial relations that are themselves sustained by often pernicious narratives from which the literary imagination is inseparable. The postcolonial and decolonial methodologies I have outlined here provide frameworks for reading that are consonant with this concept of fiction in the age of uneven climate breakdown. Postcolonial reading illuminates the insidious processes through which histories of racialized extraction come to be strategically unimagined, in order to validate a colonial socio-ecological organization. Similarly, this method helps elucidate counterstrategies of reimagining that shape fiction oriented toward racial and environmental justice. Decolonial reading facilitates a reflection on the relationship between literary criticism and the discourses underpinning the colonial organization of society and environment and further assists in foregrounding processes of ecological decolonisation at work in fiction itself. Together, these are ways of reading that treat literary narratives as sites at which wider narratives of race and nature are contested, renegotiated and rewritten such that the world, too, can be remade.

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Chapter 6

Timothy Morton's Ambient Poetics

Swedish Romanticism without Nature

Erik van Ooijen

British-American literary scholar Timothy Morton (b. 1968) is among the most influential ecocritics of the last decades. A scholar of English Romanticism at heart, their[1] impact has reached far beyond literary studies, not least due to their close involvement with the philosophical movement of object-oriented ontology and collaborations with artists like Björk and Olafur Eliasson. Since their breakthrough with *Ecology without Nature: Rethinking Environmental Aesthetics* (2007) and *The Ecological Thought* (2010), establishing key concepts and ideas that were then expanded upon in works like *Hyperobjects: Philosophy and Ecology after the End of the World* (2013) and *Dark Ecology: For a Logic of Future Coexistence* (2016), they have made a significant impression on the way we think and speak about the Anthropocene, global warming, and mass extinction in the Humanities. What distinguishes Morton from many of the other big names in recent ecotheory, however, is their firm establishment in the theory and history of literature and their long engagement with the critical reading of lyrical texts. For Morton, to read a poem is to think about, engage with, and attune oneself to the environment. The present chapter will focus on this close connection between ecological thought and literary interpretation.

How this chapter does so, however, is largely the result of being forced to adapt to a shifting environment. Preparing to write a chapter on the ecocritical method of Timothy Morton, I found myself under strange and surprising circumstances. Due to the COVID pandemic, I spent what would become two years in isolation, together with my immunosuppressed partner, in a small rural town in the middle of Sweden, with access to neither my personal library nor the university library (the municipal library was also closed most

of the time). Naturally, these circumstances would affect my own method, as I would have to pull my literary examples from the brief number of volumes at hand, a few key anthologies, and poetry collections from my teaching. Similarly, the scholarly works consulted would have to exclude most Swedish sources.

I can think of two methodological predecessors in this regard, the first being the great Swedish writer C. J. L. Almqvist (1793–1866). Spending his final miserable years in North American exile, working on a colossal treatise on Swedish verse, Almqvist was forced to make up 576 new poems to provide his discussion with appropriate lyrical examples. I will return to these poems below; yet, due to an unfortunate lack of Almqvistian genius, I cannot reproduce his method in full but must content myself with reading one of his poems. The second case in point is the eminent German philologist Erich Auerbach (1892–1957), who famously wrote his momentous treatise on Western Realism, *Mimesis* (1946), in Turkish exile during the war. Lamenting his seemingly random selection of literary works ("on the basis of accidental acquaintance and personal preference"), and the general lack of secondary sources, Auerbach nevertheless concludes that these limitations came with certain methodological advantages:

> [I]t is quite possible that the book owes its existence to just this lack of a rich and specialized library. If it had been possible for me to acquaint myself with all the work that has been done on so many subjects, I might never have reached the point of writing. (Auerbach 2013, 557)

I mention this as a brief illustration of the fundamental fact that texts and readers are always interconnected with external forces; that all methods must remain open to shifting circumstances; and that literature—even the works closest to us in the most literal sense—*comes* to us, with an element of surprise. My method for outlining a Mortonian method of reading, then, has been to limit myself, first, to a few key texts and concepts from Morton's own critical oeuvre and, second, to a few canonical examples from Swedish Romantic poetry. What happens in the encounter between these familiar texts and strange concepts, or familiar concepts and strange texts (depending on one's own intimacies)? A leading idea, guiding this chapter, is that literary texts not only *speak about* or *represent* nature but also are *ecological* in and of themselves. In reading poetry, we exercise a certain sense of attention or awareness, corresponding to what Morton calls *the ecological thought*. Fundamentally, how we engage with the poem is a question of how we engage with a being that is *other*. This is of particular importance when reading canonical texts: to allow oneself, as a reader, to remain open to the strangeness of the given and the otherness of the familiar.

CRITIQUING NATURE: BELLMAN AND THE SNIPING OF SNIPES

In a relatively early article from 2002, "Why Ambient Poetics?" Morton asks what kind of poetics could possibly direct us toward a state of consciousness that would be appropriate to an age of global warming. In this perspective, a poem becomes ecologically significant not primarily as a tool for environmental politics but because poetry as such operates in ways that destabilize our traditional and evidently harmful ways of making meaning. For Morton, it is especially in the many ironies and ambiguities of poetry that we may recognize something like *the ecological thought*. While earlier attempts at ecocriticism have championed the idea of poetry as a way to summon, invoke, and present nature as *present*, Morton rather equips himself with the conceptual and methodological tools of classical rhetoric and modern literary theory—particularly deconstruction and its understanding of meaning as multiple and deferred, always *arriving*—in order to do away with the very notion of "Nature."

According to Morton's argument, the idea of Nature prevents a truly ecological understanding of the world. Put briefly, our current environmental crisis emanates from the ways in which humans historically have conceived of themselves as separate from their surroundings: It is the view according to which humans are active agents posited against a passive backdrop of everything else. In Western thought, nature has been perceived as a pure "outside," "over there," in which humans do not really belong. When nature writing represents nature in this way, as an "over there" into which the poet has "entered," it reproduces this harmful idea. Yet, writing is also multiple and ambiguous, and in what Morton terms the *ambient poetics* of nature writing, we may glimpse a peculiar "state of nondual awareness that collapses the subject-object division, upon which depends the aggressive territorialisation that precipitates ecological destruction" (Morton 2002, 52). Whereas "Nature" with a capital N entails the strict separation of the inside from the outside, *ecology* involves the deconstruction and destabilization of such governing distinctions. Accordingly, in the ecological moments of poetry, we may find an alternative to the traditional view of nature:

> [T]his collapse of object-subject dualism, however temporary in experience, spontaneously gives rise to howsoever weak a sense of warmth towards one's world, in which one is included. This world, to say more, is a world without center or edge that includes everything. Ambient poetics evokes this world by undermining that which Jacques Derrida calls the fundamental metaphysical distinction between inside and outside. (Morton 2002, 52)

Morton's evolving method of ecological reading advances from the careful engagement with British Romanticism and writers like the Shelleys, Thomas de Quincey, and William Wordsworth. The choice is not arbitrary, since the Romantic period may be viewed as the key moment in Western thought when the phantasmal figures of "Nature" and "the Natural" were fully established and the ideology of Nature became wholeheartedly imperialistic, capitalistic, racist, sexist, anthropocentric, and heteronormative. Yet, Romanticism too is ambiguous, and for Morton the *irony* that is built into romantic poetics is precisely what may suggest an alternative approach.

Let us relate this line of thought to Swedish Romanticism by exploring how the fundamental scheme of human/Nature as subject/object is established in one of the most beloved pastorals in the Swedish song tradition: "Hvila vid denna källa" ("Rest by this Spring," 1790), the final installment no. 82 of *Fredmans epistlar* (*Fredman's Epistles*), by singer, composer, and notorious drunkard Carl Michael Bellman (1740–1795). The song, which is a beautiful demonstration of the author's position between late Baroque and early Romanticism, is counted among Bellman's "Djurgården pastorals," set in a popular recreational area of Stockholm that had served as a royal game park in the late sixteenth century. In this picturesque setting, a group of merry revellers descends on the grass to enjoy a lavish luncheon. From the very start, the scene is a display of the casual attitudes of an emerging consumer society:

> Hvila vid denna källa
> Vår lilla Frukost vi framställa:
> Rödt Vin med Pimpinella
> Och en nyss skuten Beccasin.
> Klang hvad Buteljer, *Ulla*!
> I våra Korgar öfverstfulla,
> Tömda i gräset rulla,
> Och känn hvad ångan dunstar fin,
> Ditt middags Vin
> Sku vi ur krusen hälla,
> Med glättig min. (Bellman 1916, 263)
>
> (Rest by this wellspring / As we produce our little breakfast: / Red wine with burnet / And a freshly shot snipe. / Clink! What bottles, *Ulla*! / From our brimming baskets, / Now emptied, rolling in the grass, / Just smell the richness of the transpiring fumes! / Your dinner wine / We shall pour from these jugs / With happy faces.[2])

Already from these brief opening lines, we may catch a glimpse of a growing global economy, where the many delicacies, brought to the cold North from every corner of the earth, are available to anyone who can afford them.

In later stanzas, olives and almonds, neither of which is local to Sweden, accompany the exotic wine and spices.[3] It simply does not matter *where* the goods were originally produced. Thus, consumer society displays a paradoxical state where the *closeness* to the commodity (always ready to hand) necessitates a *distance* from its production (always out of sight). The human is the consuming object, devouring the nonhuman world of plants and animals, which are poured forth from the cornucopia of Nature, a background forever removed. At the same time, Nature is also the background of the immediate surroundings, the recreational park which is sought out and entered, at will, as a place for rest and momentary respite. This is not a distinction between space and place but rather the dual operations of Nature as background: both the presence of the surrounding greenery and the absence of that mysterious black hole of production from which exotic commodities magically appear. What the picture lacks is an *ecological* context that would implicate humans, environments, commodities, and production with each other, in a vast and confused, yet tangible network, where everything functions as both subject and object.

The subject of the poem praises his surroundings while also devouring them. The latter is manifested by the freshly killed game bird, and it could be noted that the English word *sniper* was derived in colonial India from the skillful hunting of the elusive snipe. The detachment between the consumer and the consumed coincides with the subject's aestheticizing attitude about the environment. The nonhuman world becomes a spectacle for the human, one that is always observed from a safe distance, as in the theater:

> Prägtigt på fältet pråla,
> Än Hingsten med sitt Sto och Fåla,
> Än Tjurn han höres vråla,
> Och stundom Lammet bräka tör;
> Tuppen på taket hoppar,
> Och liksom Hönan vingen loppar,
> Svalan sitt hufvud doppar,
> Och Skatan skrattar på sin stör. (Bellman 1916, 263–264)
>
> (In the splendor of the fields, / Now, The stallion parades his mare and filly / Now, we hear the roaring bull, / And, at times, a bleating lamb; / The rooster, hopping on the roof / Grooming his wing, just like the hen, / The swallow, dipping his head, / And the magpie, sitting at his post, laughing.)

Nature becomes a variety show: One after the other, the animals appear in order to perform their little routine. While each has a specific role to accomplish in the great show, they still remain isolated from each other, replaceable,

not belonging together. The poem fails to draw any real connections between the animals. What links the rooster to the swallow or the magpie? How are they affected by the human observer? And where does the freshly killed snipe fit into this grand spectacle? As soon as the other birds perform their life-affirming dance, the dead bird is forgotten.

This kind of reading is obviously a form of *Ideologiekritik*, directed at the ideology of Nature. The fundamental idea is this: Nature stands in the way of ecological thinking. Even for the lovers of nature—and Bellman is prominent among them—nature becomes something insular, detached, and fetishized. Morton compares this to the male gaze: "Putting something called Nature on a pedestal and admiring it from afar does for the environment what patriarchy does for the figure of Woman. It is a paradoxical act of sadistic admiration" (Morton 2007, 5). And to be honest: Is there not a hint of sadism in Bellman's life-affirming worship of nature, as he shifts from devouring one species with his eyes to devouring another with his mouth?

For Morton, "Nature" signifies a historically situated idea of "the natural" that is intimately bound up with imperialism, racism, sexism, and anthropocentrism. This idea is constantly being reproduced by environmentalists, Nature writers, and ecocritics, for example, whenever nonhuman lifeforms are reduced to something seemingly manageable, uncomplicated, and "cute" (Morton 2010, 38). We see this happening in Bellman's poem in the saccharine exhibition of the bleating lamb and the laughing magpie, joyful sounds that drown out the reverberations from the hunter's shot. In fact, the painterly *still life* mirrors the effect of this shot by reducing the animals to inanimate objects for consumption. In this manner, the aesthetics of *harmony* serve an important function for covering up the violence inherent to the ideology of Nature.

Compare this discussion with Morton's reading of an entirely different kind of song, "We Are All Earthlings" from *Sesame Street* (1990). There, a choir consisting of Elmo, a human boy, and several animals (a fish, a lion, and a lamb) advocates for a shared sense of community among the various animal species of the planet. It does not matter whether you wear feathers, furs, or fins. Yet, Morton points out a contradiction in this message: The song asserts that life on earth consists of a multitude of cute creatures, yet the aesthetic of cuteness is always related to the single individual, the sad polar bear on the poster informing us about melting glaciers. In this sense, the cute choir actually negates the multitude of life: We get one fish singing to us but not a shoal—or the "thousand thousand slimy things" from Samuel Coleridge's classic eco-poem "The Rime of the Ancient Mariner" (1797–1798), which we will return to later. Whenever Nature is to be exalted, the individual enters the stage, while the swarming throngs of ecological entanglement disappear into the background. This is precisely what happens in Bellman's song as

well: The animals remain insular, including the ones that have become food. We learn nothing except for how pleasing this thing appears to us, right here, right now, detached and decontextualized.

At this point, it is important to remember that reading is not an entirely negative affair. While critique is important, there is no point in simply tearing a text apart. While poetry takes part in the reproduction of ideology, it is also a space where ideology and its inherent contradictions are put into play. For example, it can be argued that Bellman's song is not about life-affirming joy at all but the inevitability of death. The epistle no. 82 is the last installment in a great song cycle focusing on the semifictitious drunkard and former watchmaker Jean Fredman, and here there is certainly a dark undertone to the revelries. Throughout the song, the lush greenery becomes darkened, and in the third stanza, we note a sister shadow looming in the lush foliage, "I svarta hvirflar grå och ljusa" ("in black swirls, grey and light"; Bellman 1916, 264). Toward the end of the scene, as the feast draws to a close, the bill must be paid. Yet, while the menacing innkeeper is summing up the tab, it becomes evident that Fredman's *real* debt is to nature itself: He is dying and must pay with his life. Thus, in a typically baroque fashion, death becomes the only force that is able to reintegrate the vain human into the nature from which she has tried to detach herself. Through her mortality, the human, once more, becomes part of the background. Whereas the many lively animals of the *tableau vivant* of the second stanza appear to exist in a kind of static Edenic eternity—as ideas, or phantasms—the dead snipe functions as a *memento mori*, reminding us of the fragility of life. Our living bodies, too, are exposed to external forces. The violent human gaze becomes deadly to animals, yet we too are fragile. We too are integral parts of the very carnality that we consume from afar. In death, the distinction between us and them implodes. There is a significant tension in the way the song—still a popular evergreen in the Swedish song tradition—negotiates the distinction between human and nonhuman.

Morton argues that *all* texts are environmental, due to the way they "organize the space around and within them into plays of meaning and non-meaning" (Morton 2014, 292). A part of this organization is the ways in which they establish, explore, and disrupt distinctions between insides and outsides, human and nonhuman, center and periphery, subject and object. Ecocritical readings trace these moves, establishing and disrupting distinctions of their own while doing so. The inside opens to the outside, and suddenly a number of new contexts prove relevant for exploring the meaning of a poem. A piece of nature writing is not valuable because it urges us to care about Nature; rather it becomes relevant due to its often unexpected tussles with the very unnaturalness of our ideas about naturalness. To read "without

Nature," then, is to read beyond the restricted image of Nature found in a particular poem, toward an ecology without given limits.

IRONIC ECOLOGY: WILL THE REAL HANS JACOB SESEMAN PLEASE STAND UP?

In Morton's work, the Romantic poem stands out as a prototypical form due to its use of irony, which, for Morton, is a universal phenomenon: An ironic rift runs through reality, where everything is what it is and what it is not, simultaneously. The many unreliable narrators and narrations-within-narrations of Romantic literature are not only a matter of literary technique but an ontological statement about a reality lacking a clear center. Morton consequently envisions a kind of utopian ecocriticism that does not stop at deconstructing the romantic text but goes on to explore its ironies and ambivalences:

> Eco-critique could establish collective forms of identity that included other species and their worlds, real and possible. It would subvert fixating images of "world" that inhibit humans from grasping their place in an already historical nature. Subverting fixation is the radical goal of the Romantic wish to explore the shadow lands. The hesitations of a Wordsworth, the unreliable narrators of a Mary Shelley—the whole panoply of irony and linguistic play is not marginal, but central to Romanticism. (Morton 2007, 141)

In a Swedish context, an obvious case in point is the many narrators and narrations in C. J. L. Almqvist's (1793–1866) colossal serial novel *Törnrosens bok* (*Book of the Briar Rose*, 1833–1851). A giant among the giants of Swedish literature, Almqvist himself was almost exhaustingly versatile: A priest, a school principal, and a radical liberal advocate of equality between women and men, he was pivotal in launching both the Romantic movement and the Realist novel in Sweden. As an author, he experimented with, and often mastered, all genres available to him.

Of primary interest here, however, is a particular part of *Törnrosens bok*: the massive, to this day largely unpublished manuscript *Om svenska rim* (*Of Swedish Rhyme*), which Almqvist wrote during his miserable final years in North American exile (1851–1866). On the run from the Swedish police, accused of counterfeiting and attempted poisoning, he lived incognito, using several false names. The manuscript consists of a lengthy, often tedious dialogue between the members of a fictitious learned society on the topic of versification. Since the discussion needs illustrative examples, the author takes it upon himself to write entirely new verses, often purely nonsensical and amphigoric. The setup gets a fictional motivation, as the members

of the society decide to erect a memorial to the late Hans Jacob Seseman (1751–1819), an obscure mathematician and writer of doggerel verse whom Almqvist may have encountered during his student days. The monument will consist of 576 new poems, in the name of Seseman but improvised, on the spot, by the society's minister of the Swedish language. I will return to one of these poems later; here, I want to point out how this bizarre setup becomes of particular interest for an ecological reading in the spirit of Morton. Almqvist, the real author, living incognito using several false names, takes on the narrative persona of a fictitious character who, in his turn, channels the identity of the real, yet deceased, Seseman. The 576 poems, accordingly, are ad libbed by the minister, in the bungling style of Seseman, as imagined—and carefully crafted—by Almqvist. Whereas all this has very little to do with Nature, it has everything to do with ecology in Morton's sense, precisely because it replaces the idea of a center or fixed origin with a series of displacements. Ecology is impossible to pin down. Who speaks—where is this voice coming from—and whose meaning is expressed, if what is said means anything? Long before we even get to the particular poems in question, the authorial subject, the foreground to Nature's background, has dissolved. And as potential readers we are caught up in this process of dissemination, trying to find a position or proper stance from which to receive what is said: How can we take this nonsense *seriously*?

A poem says more, about more things, and in more ways, than intended. The hesitancies and attentiveness that it provokes from us are also needed in ecological thinking. In Morton's view, existence is split between essence and appearance. In the Romantic context, we call this *the uncanny*: what wavers, indecisively, between the familiar and the strange, itself and something else. In Bellman, we saw how the pastoral idyll harbored Death as its shadowy *doppelgänger*. Morton accordingly launches a *dark ecology* that, in contrast to traditional environmentalist discourse, aligns itself with the haunting gloom and spooky eeriness of the Gothic. You simply cannot separate the natural from the supernatural. Therefore, ecological thought is about staying with the trouble (to borrow Donna Haraway's phrase) in a dying world where we remain forever entangled with not only "cute," charismatic species (the Earthlings, the sad polar bear of the poster, the stallion with its mare and filly) but also the monsters and the creep of life:

> We should be finding ways to stick around with the sticky mess that we're in and that we are, making thinking dirtier, identifying with ugliness, practicing "hauntology" (Derrida's phrase) rather than ontology. So out with the black clothes, eyeliner, and white makeup, on with the spangly music: dark ecology. (Morton 2007, 188)

Romantic poetics prepares us for what all poems, and all embodied relations, force us to do: adjust our awareness to all the messy and muddled contexts, involving both us and the poem at hand. This means we must ask not only what the poem is trying to say but also through what formal techniques, rhetorical strategies, and linguistic means it operates.

AMBIENT POETICS: TEGNÉR AND THE SPLEEN OF LANGUAGE

Were we to ransack Morton's work in search of a method of interpretation, the closest we would get is their account of the literary language of nature writing in *Ecology without Nature*. There, Morton provides a series of concepts that in different ways explore the distinction between inside and outside. (Fittingly enough, and somewhat frustratingly, these concepts all tend to blend into each other at some point.)

Ecomimesis describes how nature writing tries to appear transparent: The text conceals its textuality by summoning nature as if it is present, here and now. This mode of poetics wants to convince us of the directness and authenticity of its representation, and its rhetorical style is characterized by the paratactic list, where nature appears as a jumbled heap of all the different things currently surrounding the author. The writer turns on the faucet of language, and reality gushes forth on the page. We find a characteristic prose example in the opening letter of Realist author and playwright Alfhild Agrell's (1849–1923) travelogue *Bilder från Italien* (*Pictures from Italy*, 1883):

> I trädgården utanför mitt fönster råder en prakt, som oupphörligt tilldrager sig min uppmärksamhet och beundran. Der finnes ljusgröna gräsmattor, palmer flera arter, smärta peppariräd, hvilkas acasielika blad kasta skuggor af den utsöktaste finhet på de ljusgula sandgångarne, orangeträd nedtyngda af halfmogen frukt och nyss utslagna blommor, jettehöga töjer om hvilkas dimensioner vi i norden hafva dvergartade begrepp, kameliaträd, öfversållade af blommor, hyacinter, hvita liljor och rosor, först och sist rosor, de härligaste rosor hvars storlek, färgprakt och doft det ar omöjligt att beskrifva. (Agrell 1883, 2–3)

> (In the garden outside my window a splendor reigns, incessantly grabbing my attention and admiration. There are light green lawns of grass, palm trees several species, slender pepper trees whose acacialike leaves cast shadows of the most exquisite fineness upon the pale paths of sand, orange trees burdened with half-ripe fruits and freshly blooming flowers, giant cedars of such proportions that our Northern conceptions seem dwarfish in comparison, camellias strewn with flowers, hyacinths, white lilies and roses, roses first and last, the most

wonderful roses, whose size, scent, and full display of color it would be impossible to describe.)

The paratactic style, which seemingly lets us follow the author's perceptions as they take place, is a technique for authentication: his is pure, unmediated Nature, as it is directly experienced. Nature writing becomes a greeting from a visiting tourist, a postcard from Nature. Morton uses the cinematic concept of *rendering* to emphasize how the reader's experience of directness is in fact dependent on various literary techniques, such as parataxis, that allow the artist to create "a more or less consistent sense of atmosphere or world" (Morton 2007, 35). In Agrell's letter, the Italian landscape is *rendered* as a dazzling, grandiose and exotic, yet fundamentally pleasant and harmonious, haven of greenery, a Nature that is even more natural than the homely Nature of the Nordic audience. Parataxis lets us experience this landscape *as if we were there*. We just need to forget for a moment that we are simply diverting ourselves with the rhetorical flourishes of literary language.

Rendering takes place in all nature writing. To illustrate the further elements of ambient poetics, let us now consider a more complicated example of rendering, where a Swedish poet, impressed by the English Gothic, sets out to paint a darker picture of the world. The case in point is "Mjeltsjukan" ("Spleen," 1825), one of the key texts of Swedish Romanticism, written by bishop, professor of Greek, and member of the Swedish Academy Esaias Tegnér (1782–1846). Here, the two first stanzas (of seven, in total) are of particular interest, as they render the world in two opposing atmospheric moods, mirroring the spiritual rupture of the lyrical subject.

From the very first line, the lyrical I describes his surroundings:

> Jag stod på höjden af min lefnads branter
> der vattendragen dela sig, och gå
> med skummig bölja hän åt skilda kanter,
> klart var deruppe, der var skönt att stå.
> Jag såg åt solen och dess anförvandter
> som, sen hon slocknat, skina i det blå.
> Jag såg åt jorden, hon var grön och herrlig
> och Gud var god och menniskan var ärlig. (Tegnér 1921, 204)
>
> (I was standing at the precipice of my life / where the streams divide and move / in frothy waves in opposite directions. / It was all clear up there, and everything was pleasant. / I looked at the Sun and her kin / who, after she goes out, remain blazing in the blue sky. / I looked at the Earth, she was green and lovely, / and God was good and Man was honest.)

At first glance, the opening stanza reminds us of the typical world of ecomimesis, as it is rendered in a vibrant and harmonious display of greens and blues. Yet, we immediately notice a rift, literally running through the landscape, in the form of the forking streams, running in opposite directions. The motif suggests crisis and conflict: There is an illusory sense of calm, yet something critical is at stake. Had it been a question of personal choice—what road to travel—the crossroads would have been a more fitting image, as it is used, for example, in "Hercules" (1658), the most well-known poem by "the father of Swedish verse," Georg Stiernhielm (1598–1672) (or, in a modern context, Robert Frost's "The Road Not Taken," 1915). But this is a rift that runs through existence itself: The world, and the self, are torn apart. Later in the poem, this will be identified as the split between essence and appearance; but already in this opening stanza, the poem signals to the reader to be wary of its own rendering of a world in full accord with itself.

From this brief analysis, it becomes clear that this landscape is something entirely different from Agrell's paratactic garden: It is not the Nature *outside* of the poem but a set of tropes and metaphors producing significance. The river is a rift in existence; the cliff is the summit of life. In other words, we are dealing with a poem about midlife crisis. Biographical research situates the writing of "Mjeltsjukan" in a depressive stage of Tegnér's life, as he was struggling with his faith after having finally been appointed as bishop of Växjö. Yet neither Nature nor biographical author is really present in the opening line. What we encounter is text and intertext, through an obvious allusion to the grand precursor in the lyrical tradition of Christian midlife crises. I am speaking, of course, of Dante's *Inferno* (here in Longfellow's translation): "Midway upon the journey of our life / I found myself within a forest dark, / For the straightforward pathway had been lost" (Dante [c. 1308–21] 1867, 3). Dante is lost in the murky woods of the Middle Ages; Tegnér simply swaps his locale to the sublime peaks of Romanticism.

The poetics of "Mjeltsjukan" cares less about the summoning of Nature than about accentuating its own artfulness: We are standing neither in the forest nor on the mountain but in an intertextual universe, the *wadi* of Barthesian textuality. The very choice of meter directs our attention to textual connections, since Tegnér borrows his *ottava rima*, not from Dante but from his great Romantic idol, Lord Byron. Upon closer inspection, the entire landscape of the first stanza is nothing but clichés: Behind the almost schematic mentioning of water, earth, sun, and sky, we recognize the ancient doctrine of the four elements. This persistent highlighting of the artifice of the text displays an ecological awareness that is lacking in traditional ecomimesis, as the poem never pretends to provide the reader with direct access to the *here and now* of the represented.

In the second stanza, the world is rendered in an entirely different mood, as it turns into a dark and barren wasteland:

> Då steg en mjeltsjuk svartalf opp, och plötsligt
> bet sig den svarta vid mitt hjerta fast:
> och se, på en gång blef allt tomt och ödsligt,
> och sol och stjernor mörknade i hast:
> mitt landskap, nyss så gladt, låg mörkt och höstligt,
> hvar lund blef gul, hvar blomsterstängel brast.
> All lifskraft dog i mitt förfrusna sinne,
> allt mod, all glädje vissnade derinne. (Tegner 1921, 204)
>
> (Then, a splenetic black elf arose, and suddenly / the black one sank its teeth into my heart: / lo, all at once the world became desolate and empty, / and sun and stars suddenly grew dark: / my landscape, so full of joy, now shrouded in autumnal darkness, / the groves turned yellow, the stalk of every flower broke. / The vital forces perished in my frostbitten mind, / my joy, my spirits, withered away inside.)

The sudden shift reveals how the environment, rather than being a place outside of the subject, reflects his internal state: The seasons change due to the midlife crisis of the subject and nothing else. Is this not the height of solipsistic narcissism? Upon closer inspection, however, things get more complicated. The striking thing about "Mjeltsjukan" is the way it presents these internal states, projected onto the world, as something arriving from the outside, supernaturally. Out of nowhere, and without explanation, a splenetic black elf appears! Obviously, spleen ("mjeltsjuka") is another word for melancholy. According to humorism, the premodern physiological theory that governed Western thought until the nineteenth century, the human temperament depends upon the internal balance among four bodily fluids: blood, phlegm, yellow bile, and black bile. This is quite a strange theory, in that it estranges us from ourselves: Who I *really* am, on the inside, is a gunky mess of sticky liquids that at any time may become disturbed and turn me into someone different. According to the theory, melancholy is caused by an excess of black bile, produced in the spleen. In other words: The black elf outside of me is the spleen inside of me. The internal and the external loop into each other. All along, the strange creature outside of me, who penetrated me and changed me to the degree that the entire world was transformed, was my own internal organ! Once we unpack the figurative language, we end up with the grotesque image of a body turned inside out, as one internal organ bites into another.

In this inversion of insides and outsides, the bite serves as a point of contact or mediation. Next to rendering, Morton points to *the medial* as a key element in ecomimesis. It may denote how a text tries to establish a direct connection between the reader and the represented, as in Agrell's Italian postcard. Morton identifies this as a particular rhetoric of situatedness that "purports to evoke the here and now of writing" (2007, 32). This is how Agrell establishes the connection: "Verandan, der jag sitter och skrifver är alldeles öfvertäckt af slingerväxter" ("The veranda, where I sit while writing these words, is entirely covered in clinging vines"; Agrell 1883, 3). This is not the case in Tegnér's poem. On the other hand, the opposite move, of emphasizing the very textuality of the text, also emphasizes its medial function. This self-presentation of the poem as *poem*—rather than unmediated reality—is of critical importance to the third stanza, which struggles with the futility of art. Here, the poet seems to suggest that not even poetry can give meaning to the meaninglessness of life:

> Och sjelfva dikten! Dess lindansarmöda,
> dess luftsprång har jag sett mig mätt uppå.
> Dess gyckelbilder tillfredsställa ingen,
> Lösskummande från ytan utaf tingen. (Tegnér 1921, 205)
>
> (And poetry itself! Walking on a tightrope, / doing somersaults—
> I've seen enough of all that. / Its tricks and illusions leave no one
> satisfied, / For they merely skim the surface of things.)

Poetry is appearance removed from essence, incapable of reaching reality at its core. It is a medium without a message, the paradox of course being that a poem is teaching us this very lesson. The poem says that poetry has nothing to say, and the poet seems earnest in his attempt to convince the reader of the futility of his own art. Morton often returns to the Epimenides paradox (or liar's paradox) as a distinct feature of poetic language: "a sentence such as 'I am lying,' whose truth claim contradicts its semantic form" (2007, 182). Here, we find a poet trying to capture the real relationship between poetry and reality in a poem about the inability of poetry to capture reality.

The medial further relates to the placement of the words on the page and the empty space between foreground and background, sign and medium, ink and paper. This is an ecological aspect insofar as it hinges on the distinction between inside and outside, on what the poem is made of and what it is about. In "Mjeltsjukan," the radical shift between the first and the second stanza takes place in the empty line, which is a visual representation of the tear in the fabric of reality from which the supernatural emerges. There is a crack in everything—that is how the elf gets in. The single most important event in

the poem takes place where nothing happens, in the empty void of the blank background—the abyss of the real, the core of things. Something, which the words themselves fail to capture ("skimming the surface . . . "), is nevertheless included in this very absence of words: The emptiness, running like a rift between the two stanzas, represents what cannot be represented. While Agrell tries to conjure the multitude of roses by describing their indescribability, Tegnér summons a void from which the unexpected, a splenetic black elf, suddenly springs forth.

The timbral, in turn, is Morton's term for the sonic materiality and the embodied aspects of poetic language, like rhyme, alliteration, and assonance. These aspects, often dismissed by structural linguistics as arbitrary and superfluous, constitute a key aspect of the meaning-making of poetry. For example, in the fifth stanza, Tegnér declares that "a corpse-like smell permeates all human life": "Det går en *lik*lukt genom mänsko*liv*et" (1921, 205; my emphasis). The statement is all the more forceful in Swedish, because of how it reveals the close affinity between *lik* (corpse) and *liv* (life) through a simple analogy of sound. Through this strange logic of sonic significance, poetry lets meaning emerge out of meaninglessness in ways that resemble nursery rhymes and baby talk. One could ask, for example, why, in the first stanza, the sky remains blue ("blå") even after the sun has gone out. From a formal standpoint, the obvious answer is that it jibes with the rhyming scheme ("gå," "stå") and the many alliterations and assonances of the preceding and succeeding lines (compare how both "gå" and "stå" are echoed in the repeating "jag såg åt"). And why (on Earth) would you name Mother Earth "Hertha," of all things, as Tegnér does in the final stanza, when Gaia would be the obvious choice?

> Mitt hjerta? I mitt bröst finns intet hjerta,
> en urna blott, med lifvets aska i.
> Förbarma dig, du gröna moder Hertha,
> och låt den urnan en gång jordfäst bli. (Tegnér 1921, 206)
>
> (My heart? There is no heart within my chest, / merely an urn, containing the ashes of life. / Have mercy, Hertha, green mother, / and let that urn be buried one day.)

Tegnér's use of this German name, invented in the nineteenth century, is quite singular and allows for a certain defamiliarization of the trope. The name is not entirely arbitrary, of course. While reminiscent of the English "Earth," it is actually derived from a misreading of Nerthus, a Germanic goddess of fertility related to the Norse Njord. Perhaps the choice can be read in line with Tegnér's nationalist tendencies, previously expressed for example

in his patriotic and warmongering poem "Svea" (1811). The most obvious reason, however, is simply the rhyming opportunities: "Hertha" becomes the poetic tissue that connects *my heart* ("mitt hjerta") to *the pain of the Earth* ("jordens smärta") in the flesh of sound. In addition to the fact that we are dealing with representations of the green Earth, such details carry an ecological significance because they bring out the relationship between significance (the tricks of language) and insignificance ("dumb matter," as Tegnér later calls it in the poem), between sound and meaning, bodies and language. The timbral is haunted by a strange, prelinguistic will to meaning that permeates the evolution of our bodily organs: the tongue, the lungs, the teeth, perhaps even the spleen of language.

The opposite of this sonic embodiment is what Morton calls the *Aeolic*: sounds without a clear source of origin that simply transpire in some reality beyond the writing subject. "Mjeltsjukan" is free from the waves splashing against the shore, or wind rustling the trees, so common for ecomimesis. While such ambient sounds often signify a sense of natural stillness, Tegnér's world, on the other hand, is unnaturally silent. All that is heard in this cosmic void is the beating of the poet's heart:

> Säg mig, du väktare, hvad natten lider?
> Tar det då aldrig något slut derpå?
> Halfätne månen skrider jemt och skrider,
> gråtögda stjernor gå alltjemt och gå.
> Min puls slår fort som i min ungdoms tider,
> men plågans stunder hinner han ej slå.
> Hur lång, hur ändlös är hvart pulsslags smärta!
> O mitt förtärda, mitt förblödda hjerta! (Tegnér 1921, 205)
>
> (Tell me, watchman, as the night wears on: / Will it never end? / The moon, half-eaten, gliding, forever gliding, / the stars, all teary-eyed, pacing, forever pacing. / My pulse beats fast like in my youthful days / Yet, never fast enough to beat these painful moments. / How long, how infinite, the torment of each beat! / Alas, my devoured heart, bled dry!)

This is an example of what Morton calls *tone*, which relates to vibration and attunement, especially between bodies and their environments. The poet is no longer at home in the world. His Christian faith is being threatened by the realization that the universe is made up of nothing but brute matter: "Reality, what do you want from me, with your dead, / dumb matter, all depressing and raw?" (Tegnér 1921, 204). In the sixth stanza, quoted above, we are made aware of the correspondence between the regularity of meter and the mechanical order of the materialist cosmos that paces on and on, indifferently. In any

poem, the tension between form and meaning, or insignificance and significance, must be reconciled; here, we find a corresponding conflict between the mechanical universe and the rhythms of life. The two beats clash—the slow stride of moon and stars, and the rapid pounding of the human heart—as the metric uniformity diverts in two directions: The slow, heavy dactyls initiating "halfätne månen" ("the moon, half-eaten) and "gråtögda stjernor" ("the stars, all teary-eyed") versus the iambic, monosyllabic thumps of "Min puls slår fort som i min ungdoms tider" ("My pulse beats fast like in my youthful days"), where every second beat hits like a hammer.

This tension remains unresolved until the very last line of the final stanza. This is also where the most striking irregularity of meter occurs, in the form of a caesura, marked by a dash, finally suggesting the possibility of a return to God in death:

> och tidens hittebarn, här satt i skolen,
> får, kanske, se sin fader—bortom solen. (Tegnér 1921, 206)
>
> ("and once their earthly schooldays are over, the orphans of time
> / will, perhaps, meet their father—beyond the sun.")

Together with the appearance of the black elf, this promise is the most significant event of the poem; once again, it takes place in the empty space of a rhetorical pause. In this brief, meditative moment lies the ultimate hope that the meaningless of material existence can finally be transcended. Thus, the entire poem is an ongoing struggle for a sense of attunement with the world, attunement in the sense of silence, the final coming to rest of vibrant matter.

The last element of ambient poetics is the *re-mark*, which relates to how something appears as significant (or *remarkable*): It is the way meaning is foregrounded against the backdrop of random noise. In Morton's words, the re-mark is what "makes us aware that we are in the presence of (significant) marks": "How do you discriminate between the letters on this page and random patches of dirt, or patches of paint and 'extraneous' matter on the canvas?" (2007, 48–49). For a mark to become remarkable (or writing, in the Derridean sense), it must rely on something outside, such as a system of language, that cannot be reduced to the mark itself, but marks the mark as meaningful. As we have already noticed, "Mjeltsjukan" is all about the challenge to discern meaning in a world of dumb matter, and, for Tegnér, only God can guarantee meaning. Unfortunately, the world is lacking in signs of divine presence, beyond "Kainsmärket" ("the mark of Cain"), stamped on the brow of every human being, exposing its wickedness.

In "Mjeltsjukan," language is presented in a negative light. Removed from the essence of being, it has nothing to say—it makes nothing remarkable.

Nevertheless, we must remind ourselves that the poem is not only *about* language but *of* language and, in this regard, it presents *itself* as highly re-markable. While dismissing the frivolities of poetic language, it bears all the typographical marks of a poem that wants to be read seriously, for example, the broken lines, the division and arrangement of stanzas, and the flush left and ragged right alignment of the text. These conventions make the text immediately recognizable as a particular form of language that demands the utmost attention from the reader; they mark it as remarkable. In the very last line of the poem, we noted the dash, preparing the reader for the punch line: Beyond physical existence, there is God, the guarantor of meaning. Once again, we notice the ironic split between content and form, or what the poem says (poetry is meaningless) and how it says it (this poem is meaningful).

"Mjeltsjukan" is a keystone of Swedish Romanticism, but it is hardly considered a piece of nature writing. In spite of this, I have applied the six elements of Morton's ambient poetics to the poem—rendering, the medial, the timbral, the Aeolic, tone, and the re-mark—to suggest a way of reading the poem ecologically. A reading focusing on ambient poetics counters the tendency to read works of literature as mere substitutions for (or mediations, or representations of) Nature. All texts twist humans and nonhumans, subjects and objects, centers and peripheries, insides and outsides, in ways that demand our careful consideration of details, contexts, ironies, and ambiguities.

As suggested above, ambient poetics is the closest thing we have to an explicit method in Morton's work. Yet it is hardly an established method of textual analysis. Morton's primary influence lies instead in a number of key philosophical concepts that have garnered traction in a wide range of fields with a theoretical interest in ecology. I will devote the rest of this chapter to a few of these concepts, bringing them to bear on a few more texts from the lyrical canon of Swedish Romanticism. These concepts are the hyperobject, the mesh, and the strange stranger.

HYPEROBJECTS: THORILD AND THE HORRORS OF INTIMACY

The most influential of Morton's concepts is the *hyperobject*, which is closely associated with the idea of the Anthropocene. In its geological sense, the Anthropocene concerns the extent to which the lingering traces of human activity will remain discernible in the geological strata of the Earth for the rest of its existence (in other words, long after the disappearance of the human species). As a result of human activity, exceptional amounts of rare substances, like microplastics and nuclear particles, have been distributed all

over the crust of the planet to the extent that they will mark a noticeable event in the future sediments of geological deep time. The same goes for less conspicuous materials. Due to the vast scale of global industrial food production, geologists point to the concentrated amounts of calcium from chicken bones as a case in point, as billions of chickens are consumed each year (Bennett et al. 2018).

Morton labels things like polystyrene, plutonium, global warming, and the COVID pandemic *hyperobjects* because they are so massively distributed in space and time that they exceed human categories: Thus, we have created materials of such dimensions that they transcend our own comprehensive abilities (Morton 2010, 131; 2020). Hyperobjects are inescapable, yet they cannot be grasped. They slip into the past and the future, and they appear everywhere and nowhere, all at once. They remind us of the Romantic sublime, and our fascination with the crumbled preservation of "technofossils" is our version of German *Ruinenlust*. In Percy Bysshe Shelley's celebrated sonnet "Ozymandias" (1818), we encounter the derelict remains of a giant statue of a once great king, now abandoned in the desert wasteland as a reminder of past civilizations and the transience of power. After the fall of Western modernity it, too, will leave its radically "nonlocal" ruins behind. Whereas Ozymandias' "two vast and trunkless legs of stone" at least keep standing in one place (Shelley 1819, 92), our ruins also will be disseminated throughout the lithosphere and the atmosphere, existing everywhere and nowhere, all at once.

The temporal ambiguity of hyperobjects allows for an interesting relationship to literary history. As the Anthropocene is simultaneous with Romanticism, Romantic poetry is permeated with the hyperobjects of global warming and mass extinction, even when we cannot point them out directly. Anthropocene literature is not restricted to the works of our contemporaries, explicitly addressing the concept as its principal theme but is rather the history of literature as such, considered as an expression of human activity. What happens when we read one of the pioneers of Swedish Romanticism with hyperobjects in mind? This is the first paragraph of poet, philosopher, and self-proclaimed genius Thomas Thorild's (1759–1808) prose poem "Om hösten 1785" ("In the Autumn of 1785," 1785), one of the classics of Swedish nature writing:

> Jag satt på den nakna klippan, omgifven av de höstgula skogarna; fälten lågo förstörde under mina ögon—allt sväfvade i de omätliga töcknen: Ändå genomträngde mig den alltid förtroliga Naturen. – Dess eviga väsen andades till mig, och jag sjönk i en hvilande förtjusning. (Thorild 1933, 128)

> (I was sitting at the bare cliffs, surrounded by forests yellowed with autumn; the fields lay devastated beneath my eyes—everything suspended in the boundless mists: And still, I was being penetrated by forever-intimate Nature.—Its eternal essence breathed into me, and I fell into a quiet delight.)

The scene develops into what is often described as an epiphany, triumphant and ecstatic, in which the lyrical I merges with Nature and becomes one with the cosmos. It is a flagrant example of ecomimesis. But pay attention to the dating of the title. When chemist Paul Crutzen and biologist Eugene Stoermer launched the concept of the Anthropocene, they suggested a starting date for the period in 1784, that is, the year before Thorild's revelation. The rationale behind the chosen year is the construction of James Watt's steam engine, the literal motor of fossil-driven industrialism: From this point on, we find increasing concentrations of greenhouse gases in the atmosphere. In hindsight, Thorild's exaltations seem to be heralding global warming.

Today, it has become impossible to read Romantic representations of Nature with the innocent eyes of the Romantic era. Elevated above all earthly restraints, gazing over the ravaged fields, the poet's position strikes us as blatantly toxic: It is the attitude of the Master, the erectile Man of Derridean *carnophallogocentrism*. The yellowed fields have been devastated, not from seasonal change but from harvesting. Morton (2016, 42) uses the term *agrilogistics* to denote the shift in the relationship between humans and their environment taking place approximately 12,000 years ago when nomadic hunter-gatherers started settling and tilling the land. Over time, and passing through such technological innovations as the steam engine, agrilogistics has spiralled into the Anthropocene, global warming, and the sixth mass extinction event, reaching its peak from the 1950s and onward with the Great Acceleration. At the time of Thorild's poem, farming intensifies in terms of both short-term rewards and long-term consequences. The "boundless mists" of Thorild's poem, then, signify not only the conventional *Nebelmeer* of Romantic imagery but also the steam, gas, and smoke of burgeoning industrialism. It is a reminder that the "eternal essence" of Nature is fickle, malleable, and always changing. The fact that humans can live and breathe in the first place is the result of a previous climate catastrophe, the Great Oxidation Event, which changed the conditions for life on Earth. A few billion years ago, a particular lifeform, Cyanobacteria, was so successful that its runaway growth drastically transformed the atmosphere, filling it with oxygen, wiping out most existing (anaerobic) species in the process. The atmosphere is a by-product of biotic communities. In Thorild's attempt to capture the invariable nature of Nature, he thus inadvertently provides us with a glimpse of radical ecological change.

Morton (2013, 314) points to the 1945 American nuclear bombings of New Mexico and Japan as a decisive event for the Anthropocene due to the sudden, disproportionate release of rare radioactive matter. For Thorild, the very idea of being penetrated by Nature gives rise to an almost erotic bliss; with the reality of nuclear radiation in mind, however, Eros is accompanied by Thanatos. Today, the intimacies of nature are often unsolicited. There is a horror to natural penetration, to having the essence of the Real breathing straight into you. Or, as Morton vividly describes it in an essay on radiation: "I am now seared with gamma rays at an astonishingly intimate level of my being—the nuclei of my very atoms" (2013, 323).

As I have tried to suggest, there is an argument to be made that Thorild's poem is in fact about carbon dioxide, global warming, and nuclear radiation. Along similar lines, we can point to the trace fossils of the Anthropocene in Bellman's vision of the consuming subject. Halfway through Fredman's last breakfast, Ulla Winblad—Bellman's recurring muse and *demimonde*—rips the wing of a cold chicken in order to serve it. Fast forward a few hundred years, and the billions of wing-bones cramming our landfills start compressing and forming visible layers of bedrock.

Once we accept the historical reality of the Anthropocene, we must accept that literary history, too, manifests these processes. The traces of global warming and the sixth mass extinction are found not only in the atmosphere or the crust of the Earth but also in our cultural archives. Perhaps all poetry after the invention of agriculture should be considered Anthropocene literature.

THE MESH: ALMQVIST AND THE DISCOMFORTS OF DROWNING

Once we start thinking of ecological connections, we experience what Morton calls "an explosion of context" (2018, 45): *anything* offers a relevant context for *anything else*. Reading canonical texts, we need to know a great deal about epochs, nations, economic systems, and literary movements, not to mention the individual biography of the author. And still, no matter how much information we gather, it is never enough to allow for *the* ultimate appreciation of the work in question. It is impossible to determine what chunks of contextualizing data are needed for an exhaustive interpretation. According to Morton, "ecologically aware criticism opens up a vertigo-inducing abyss of potentially infinite, overlapping contexts" (2018, 45–46), due to the simple fact that *everything* is interconnected. We cannot say in advance what is relevant or irrelevant for the critical reading of a text, just as we cannot determine what species are critical for a particular ecosystem and what other species are "dispensable." The more we know about the particularities of parts and

wholes, the stranger both become—the part is a whole of different parts, the whole is a part of a different whole. When Morton speaks about the "interconnectedness of all living and non-living things" (2010, 28), this does not mean everything that exists fits neatly into its given slot within a closed and well-balanced system. Rather, it suggests that all relations are open towards things not already in place: the strange, the unexpected, the arriving. This goes for ecosystems as well as for structures of significance. Morton's term for this fundamental interconnectedness is *the mesh*.

In the mesh, all things are simultaneously insignificant and of critical importance—a condition Morton likens to schizophrenia. As we learn more about how things stick together, we start to lose grasp of reality. Lifeforms are a case in point. The more we learn about a particular form of life, the clearer it becomes that it never "existed" as such:

> Consider symbiosis. A tree includes fungi and lichen. Lichen is two life-forms interacting—a fungus and a bacterium or a fungus and an alga. Seeds and pollen have birds and bees to circulate them. Animal and fungal cells include mitochondria, energy cells (organelles) that are evolved bacteria taking refuge from a (for them) toxically oxygenated world. Plants are green (the color of Nature) because they contain chloroplasts, derived from the cyanobacteria. Mitochondria and chloroplasts have their own DNA and perform their own asexual production. (Morton 2010, 33–34)

The point is that you cannot say where one lifeform ends and another begins. Once we start scrutinizing Nature, it dissolves into a series of supplanting displacements, which Morton compares to using a dictionary: We look up one word, only to have the dictionary refer us to another word, and another (2018, 28). As literary scholars, we already know this from working with intertextuality. The allusion found in one text leads us in the direction of another text and so on, in a runaway spiral that seldom ties together in a neat hermeneutic circle. You will never be able to chart *all* the relevant influences, traces, echoes, and generic conventions of a text. Now, apply the concept of the mesh to Bellman's song: Fredman links to the snipe that links to the cock that links to the hen that links to the cold chicken wing that links to the calcium deposits of the Anthropocene that links to you and me and the nuclear bombings of 1945 and the future fossilized traces of yesterday's lunch.

Our attempt to pin down the speaking subject in Almqvist's exile poetry is another case in point. Let us delve into one of these poems, the ironic yet melancholic suicide poem "Var finns en sjö" ("Is there a Lake") which begins with these surprising lines:

> Var finns en sjö, där man i frid och lugn kan drunkna,
> och det med nöje, utan obehaglig lukt?

(Almqvist 1983, 228)

(Is there a lake, where one may drown oneself in peaceful solitude,
/ in a pleasant manner, without foul odors?)

The entire attitude of the poem is split between heartfelt despair, phlegmatic incapability, and an exaggerated sense of fussiness. Is this a joke, like most of the whimsical amphigories of the collection, or a sincere expression of the anguished poet? The lyrical I is torn between wanting to die and wanting to avoid all discomfort. Like Thorild, he desires to become one with Nature and, like Tegnér, he knows that this can happen only in death. Yet, Almqvist has left the lofty Romanticism of his youth behind. At this point, his vision of Nature stems less from ideal abstraction than from practical experience, and he is well aware that, in reality, it is a filthy, stinking mess. Thus, the poem can be said to articulate the dawning recognition that *there is no Nature*. There is no lake, in the Romantic sense that still seems to govern our understanding of water as an empty void where waste simply disappears, like in a toilet. Instead, after the first introductory lines, we get a Realist apprehension of the lake as a mucky, slimy mesh where all kinds of living and nonliving things stick together: human corpses, crawfish, fish and bacteria, and all the nastiness that has hitherto been expelled from pastoral poetry.

Today, it is difficult to read Almqvist's poem without thinking of microplastics, oil spills, acidification, and bleached coral reefs. All the waste and discharge we hoped would disappear is back to haunt us—in the food we eat, the water we drink, and the air we breathe. In Swedish, *kräfta* (crawfish) is another word for cancer, and today, 10% of all cancer cases in Europe are caused by pollution. In turn, a *kanalje*, as it appears in Almqvist's *kanalje kräftor* a few lines into the poem, is best translated as a *rascal*, a diminutive villain, bordering on a nuisance. Here, I find the poet's unusual combination of words (strange, indeed, even for a native Swede) particularly fitting, as it lets the grumblings on the unpleasantries of suicide mirror our own attitudes about global warming and mass extinction as an inconvenient truth—a rather tiresome disaster, ruining the mood for everybody. There is no lake, yet the sea levels keep rising.

The ending of the stanza is the final irony of Almqvist's poem: "Finns väl en sådan sjö, så vill jag utan buller, bråk och vimmel / gå dit rätt snart, och i dess vackra vatten finna ljuvt min himmel" (Almqvist 1983, 228). (If there is such a lake, I want to go there rather soon, without any commotion, / and joyfully meet my Heaven within its wonderful waters.) The lyrical I chooses death before the filth of biological life. However, it is precisely this filthiness that prevents him from dying. Paradoxically, it is his finicky desire to avoid the mess of life that forces him to "stick around with the sticky mess that

we're in and that we are," as Morton had it. Instead of dying, he chooses to "stay with a dying world: *dark ecology*" (Morton 2007, 185).

STRANGE STRANGERS: LÖWENHJELM AND THE DISAPPEARING DODO

To avoid the idea that the mesh is a closed system, Morton supplements it with the concept of *the strange stranger*. It is an alternative to the anthropocentric category of "animals," as the latter eliminates the differences between all lifeforms except for that of humans, on the one hand, and *everything else*, on the other. The problem with the way animals are represented in songs like "Hvila vid denna källa" or "We Are All Earthlings" is the underlying presumption that Nature is a closed system in which a determined number of fixed species fit together in a preconceived way. This is a pre-Darwinian understanding of life, governing the taxonomical systems of Linnaeus or biologist Jakob Johann von Uexküll's idea of Nature as a great symphony, where each species sings its individual part. The mesh, on the other hand, is open to the unexpected, the Derridean *arrival*.

Whereas animals are given, strange strangers are "alien to themselves and to one another in an irreducible way" (Morton 2011, 216). It is strangeness, or the capacity to exist simultaneously both inside and outside of relations, that allows things to come into contact with each other. The tautology accentuates how strangeness is preserved, and even enhanced, as we get to know each other better: "The closer you look, the weirder, strange strangers become" (Morton 2010, 42). Morton compares this kind of intimate strangeness to a long-standing relationship: "As anyone who has a long-term partner can attest, the strangest person is the one you wake up with every morning. Far from gradually erasing strangeness, intimacy heightens it" (Morton 2010, 41).

The concept of the strange stranger does not separate humans from other forms of life but entangles us intimately in the mesh. This can be illustrated with Coleridge's Gothic long poem *The Rime of the Ancient Mariner*, about an old sailor who has been cursed for shooting an albatross in his youth. Having finally learned his lesson—to appreciate and respect all forms of life—he is destined to walk the earth, preaching his new commandment of love:

> He prayeth best who loveth best,
> All things both great and small:
> For the dear God, who loveth us,
> He made and loveth all. (Wordsworth and Coleridge 1802, 188)

In Morton's reading, the point of the poem cannot be summarized simply as "Don't shoot albatrosses!" Rather:

> The moral is about the traumatic encounter between strange strangers. One of these, without a doubt, is the albatross itself; another is the Mariner, the zombie-like walking, talking poem; [. . .] and several million water snakes, lowly worms indeed. Coleridge brilliantly imagines the proximity of the strange stranger, who emerges from, and is, and constitutes, the environment. The background becomes the foreground. (Morton 2010, 46)

One way of reading ecologically is to move beyond the phantasmal image of "the animal" to explore instead how poetry maintains the strangeness of strange strangers. Coleridge's mariner reminds us of Almqvist's failed suicide, who is forced to realize that he shares the Earth with the creep of life. "Var finns en sjö" is almost a parody of Coleridge's sentiment.

The Swedish poem that, in my view, best resembles the strange mood of Coleridge's poem is one that also deals with the shooting of birds. For this final reading, I will go beyond the strict demarcations of Romanticism to consider an early modernist working in the Romantic tradition. The poet in question is visual artist and eccentric aristocrat Harriet Löwenhjelm (1887–1918), whose posthumously published, masterly crafted verse—with its seamless shifts between Christian spirituality, playful naïveté, and elaborate nonsense—is evocative of both Almqvist's lyrical oeuvre and, within an English context, that of Lewis Carroll. Here are the opening lines of the first stanza of one of her most famous pieces, "Jakt på fågel" ("Bird Hunting," 1913):

> Tallyho, Tallyho, jag har skjutit en dront,
> en dront har jag skjutit med luntlåsgevär,
> då solen rann ned mot en blek horisont
> och havet låg blankt mellan öar och skär. (Löwenhjelm 1927, 18)
>
> (Tallyho! Tallyho! I have shot a dodo, / I shot a dodo with a matchlock rifle / as the sun melted towards the pale horizon / and the sea lay calm between isles and islets.)

What kind of strange stranger do we encounter in Löwenhjelm's poem? The dodo was a large, flightless Mauritian bird hunted to extinction shortly after it was first "discovered" by Dutch sailors in the seventeenth century. The coexistence between dodos and humans was so short-lived that, even after its discovery, it was as if the bird had never existed: It was simply dismissed as a mythical being. In brief, "Jakt på fågel" is about extinction, and manmade extinction at that (Löwenhjelm returns to the theme in the bewildering "Förhistorisk jakt" ["Prehistoric Hunting"], about the deep time

impact of *Homo erectus*). However, it is hard to pin down the general attitude of the poem. There is neither accusation nor sentimentality to be found, as it seems written with a kind of flippant profundity. Like Almqvist, Löwenhjelm gleefully wavers between depth and drivel, an ecological duality that Morton describes as "very ironical and full of humor and laughter" (2002, 55). Tegnér's black elf is a parallel case: At the very heart of existential dread and desolation, the poet introduces an element so utterly bizarre and juvenile that you cannot help but smile.

This duality is established already in the first repeated words. While "Tallyho!" may be a common cry among British fox hunters, it seems completely foreign in a Swedish setting. And it is so utterly unpoetic—despite the efficiency of the anapests—that the poem seems twisted from the start. Metrically at home, yet semantically alien; this is the poetic uncanny. In contrast to Tegnér, Löwenhjelm embraces the somersaults and hollow tricks of language, and the silliness is matched with a Gothic eeriness. There is nothing casual about the killing, but the entirety of the event is steeped in the supernatural. In Bellman, the snipe could readily be killed because it adhered to the predictability of "the animal," yet the dodo is strikingly strange and unnatural, bordering on the humanlike as well as the mechanical. This is how the moment of death is reported in the second stanza:

> Han var stor, han var brun, och han skrek som ett barn
> och vingarna klapprade som på en kvarn,
> då han föll till det rum, där som fiskarna bo. (Löwenhjelm 1927, 18)
>
> (He was big, he was brown, and he screamed like a child / his wings clattering like a windmill / as he fell down into the space where the fish live.)

Throughout the poem, it becomes clear that the encounter has been wholly unexpected. The lyrical I is a bird hunter, yet the dodo is no ordinary bird. The hunter experiences a miracle so out of the ordinary that he immediately realizes that nobody will believe him; and his only proof, the quarry itself, disappears into nothingness. In the third and final stanza, the hunter laments the weak faith of his peers:

> Jag har skjutit en dront, jag har skjutit en dront.
> Och nu går jag till byn, där som bröderna bo.
> Nu vänder jag åter, men tom är min kont
> och jag ropar ej mer: tallyho, tallyho.
> Och jag talar väl ej om det undret, som skett.
> Jag känner er väl, I ha'n förr mig belett,
> I krasse, förkrumpne och sene att tro. (Löwenhjelm 1927, 19)

> (I shot a dodo, I shot a dodo / And now I return to the village where my brothers live. / I return, yet my knapsack is empty / and I no longer shout: Tallyho, Tallyho. / I better not speak about the miracle that took place. / I know ye too well, ye have laughed at me before, / ye cynical, stunted, of little faith.)

The entire thing is a temporal paradox. Certainly, the matchlock rifle, a few archaisms, and some formal elements reminiscent of the medieval ballad situate the story in a historical past. Perhaps the dodo was still around at the time of the story? Yet, the event is presented as highly remarkable, and it becomes stranger the closer you look. The hunter must return empty-handed because the quarry has fallen into the ocean, indicating that the flightless bird was, in fact, flying. Is it an evolutionary predecessor to the dodo, prior to losing its avian capabilities due to island gigantism (a recent hypothesis, much younger than the poem itself)? This would hardly agree with the historical invention of the matchlock rifle. Or is it the ghost of extinction, back to haunt the guilty party? In any case, the hunter's encounter with the dodo symbolizes the impossible: coming face-to-face with the totally unexpected. The dodo disrupts the order. The hunter enters the dodo's world with a bang, but the reverse is equally true.

The poem also disrupts the order of serious interpretation. Probing its hermeneutical depths, we find nothing but surface trickeries—the jocular routines of Tegnér's tightrope walker. As soon as we dismiss the silliness of it all, however, the poem demands to be taken seriously in its complex treatment of faith and wonder, death and extinction, and the act of interpretation itself. Even as the interpreter nails the point of the poem, it slips through their fingers, only to disappear into the abysmal depths of the incomprehensible. We too return empty-handed, at a loss for words.

The encounter with the strange stranger relies on openness about the impossible, or what Morton calls "the *arrival* ('human' or 'animal' or other) your worldview was not expecting" (2007, 99). Poems are about strange strangers, and they *are* strange strangers. Even when a poem is handed down to us from tradition, its significance is never given but always arriving. Or, as Morton puts it: "The meaning of a poem is (in) the future" (2012, 221).

CONCLUSION

In the current political climate, the national canon is treated as a given and a constant, of determinate significance, mediating a set of core values. Reaching for the canonical texts of Swedish Romanticism, I grab what is ready to hand, only to notice their *uncanniness*—always a bit strange in their familiarity,

frustrating expectations. By applying a new set of ecocritical concepts to the texts, we can tease out some of this strangeness. That said, the method of reading suggested here is not defined by the rigidity of the concepts applied but by openness towards the openness of the other. Understood in this way, reading is an inherently ecological activity.

Although we started with a critique of the idea of Nature, it is important to remember there is plenty of work to be done even after we have identified and picked apart the many ways in which a particular poem paints a false and distorted image of Nature. A fundamentally detached reading simply mirrors the sadistic gaze of the consuming subject. For Morton, absolute critique is close to nihilism. Ecological reading, on the other hand, is entanglement with the strange and openness to the unexpected. Thus, ecocriticism "without Nature" is not about distinguishing bad Nature writing from good eco-poetry. Many of the ecologically enlightened eco-poets of today are worse ecologists than Almqvist, and many poems about hyperobjects have less to say about global warming than Thorild, precisely because they turn hyperobjects into something recognizable, localizable, and easy to point out.

Openness, not detachment, is the stance of the ecological reader: "This is the ultimate rationality: holding our mind open for the absolutely unknown that is to come" (Morton 2007, 205). This applies to our encounters with literature, as well as with other lifeforms—and, finally, with the strange strangers that we remain in relation to ourselves.

NOTES

1. Morton uses nonbinary pronouns.
2. I present my own, admittedly clumsy prose translations of the Swedish poems. These translations are purely pragmatic, devoid of all artistic ambition.
3. Burnet grows wild in the southern parts of Sweden. Obviously, the snipe is also a native Swede.

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Chapter 7

Econarratology and Metaphor Analysis

Johanna Lindbo

When discussing ecocriticism as a theoretical framework, it has become increasingly common in recent years to emphasize not only aspects such as genre and theme but also narrative aspects and their significance for an ecocritical analysis. How a text is narrated, whose perspective is portrayed, and what spatial and temporal scales are created through narratological devices are all factors that must be considered in an analysis with ecocritical ambitions. Ecocriticism combined with narratology specifically aims to highlight and develop our understanding of how narrative techniques and ecocritical theories can be integrated.

In this chapter, I demonstrate how an ecocritical narratological method can include the poetic form and the use of language. As an example of how this can be done, I analyze parts of the short story "Ormflickan" ("The Snake Girl") from Birgitta Trotzig's short story collection *I Kejsarens tid: Sagor* (*In the Time of the Emperor: Fairy Tales*), published in 1975. Trotzig (1929–2011) was one of Sweden's foremost writers during the twentieth century. Her extensive literary work includes poetry, novels, short stories, and essays in which she often explored existential and aesthetic questions. Trotzig did not shy away from the painful and ambiguous aspects of human existence, which she depicted using a distinctive, metaphorical imagery. In 1993, she was elected as a member of the Swedish Academy and held seat number six until her passing. Throughout her active career, she received numerous awards for her literary contributions, including the Pilot Prize in 1985 and the 2004 Royal Medal Litteris et Artibus.

The focus of this analysis is on how spatial, temporal, and sensory aspects of storytelling and the poetic composition of language challenge an

anthropocentric notion of humans as separate from the more-than-human world. The analysis incorporates an ecocritical metaphor analysis and a close reading technique inspired by Daniel Wildcat's and Robin Wall Kimmerer's concept of expanded attentiveness to emphasize the abundant presence of vegetation, habitats, and landscapes found within Trotzig's short story. By examining the use of metaphors, this chapter illustrates how the short story portrays a complex porosity between the human and the more-than-human, as well as between the living and the dead.

NARRATOLOGY: AN ANTHROPOCENTRIC FIELD WITHOUT RELEVANCE FOR ECOCRITICISM?

A narrative is a form of communicative storytelling that creates order and comprehensibility, often in a sequence of events. Narratology is, therefore, the study of the structures and functions of storytelling. Many different theoretical developments have occurred within narratology, resulting in various methods by which a narrative's techniques and structural composition, as well as their effect on the story being told, can be systematically examined. Often, a narratological approach is combined with other forms of literary theories and methods. The roots of classical structuralist narratology are not easy to determine, as they stretch from Aristotle to the Russian Formalism of the 1920s; nevertheless, narratology's starting point is often dated to the 1960s and structuralism (Rudrum 2002). Classical narratology was characterized by a strong focus on classifications, patterns, and narrative aspects that were primarily concerned with the seeing and speaking human subject (Genette 1980, 22, 25–26).

Opinions differ on whether narratology should be incorporated into ecocritical analyses, even though it may seem obvious that an analysis of a literary work should focus on the narrative construction and structure, at least to some extent. Various concepts, such as focalization, analepsis, and spatiality, are usually part of a literary analytical work, regardless of whether the analysis employs a whiteness-critical or intermedial stance. So why has criticism been directed toward the demand for narratological tools by, for example, ecocritics and new materialists? One of the arguments is that narratology is based on a human construction and therefore is not fully compatible with an ecocritical perspective that seeks to look beyond the human approach. In *Death of the Posthuman* (2014), Claire Colebrook criticizes classical narratology's ability to expand perspectives and readings to include more-than-human aspects and narratives. As an alternative, she questions how we can read and understand other types of timelines, rhythms, and perspectives. Colebrook (2014, 23–24) suggests that we need to explore the possibility that the world itself can be

understood as a narrative. If we imagine the world to be a narrative, then its storytelling and communicative functions can be perceived through geological formations and changes in climate, for example. Colebrook's idea of the world as a narrative has important connections with other researchers' views on the more-than-human and its potential ability to host and convey stories.

Here, I will introduce some theoretical perspectives that can clarify the breadth of ideas about and approaches to the relationship between narratology, the human, and the more-than-human. In the following section, I address concepts such as attention and storied matter.

ATTENTION AND STORIED MATTER: CHALLENGING NORMATIVE PERSPECTIVES ON STORYTELLING

If a method and its tools stem from human consciousness and from the specific abilities and limitations of human perception, wouldn't it be limited to the anthropocentric perspective? The concept of attention is a crucial part of both Daniel R. Wildcat's and Robin Wall Kimmerer's theories on how humans should relate to the more-than-human.

Attention is about a kind of receptivity to the world, in which it is important to experience both small and large relationships. As a bryologist, Wall Kimmerer (2016, 8) studies mosses; she emphasizes that sight alone does not provide us with the knowledge needed to experience and understand how the world's different species are interconnected. Instead, an attention strengthened by all of the body's senses is required for the world to be revealed to us (Wall Kimmerer 2016, 10). In *Red Alert! Saving the Planet with Indigenous Knowledge*, Daniel R. Wildcat (2009) describes how attention can help us understand that the world cannot be solely defined through the human perspective:

> It affirms patterns and processes beyond our own human making—patterns residing in ancient environs, such as wetlands, mountain ranges [. . .] and processes emerging in these environs, some relatively short duration and some extending far beyond directly observable human time frame, such as the processes embodied in the hydrologic cycle, nutrient cycling, and the rock cycle, to name a few. (Wildcat 2009, 102–103)

That the human perspective of the world and of the more-than-human species living there differs from the perspectives of other species is not inherently problematic. Our senses and cognitive abilities are adapted to our human condition and thus shape how we perceive each other and orient ourselves within the environment. As Wildcat writes, there are several geological,

hydrological, and biological processes of which humans are a part, but they cannot be seen with the naked eye. Perhaps this is precisely what Colebrook refers to when she suggests that we view the world as a narrative; within its various processes lie knowledge and meanings—but, to access them, we must be attentive. Human perception is influenced by a myopic or nearsighted perspective, and our timeline and rhythm are sometimes too fast or too slow in relation to other species to allow us to experience more-than-human rhythms fully. When our perception is nevertheless allowed to define the world, anthropocentrism arises, which refers to the human-centric view (Herman 2018, 7). The anthropocentric approach takes for granted that the perspectives, senses, and physical abilities that are normative for humans are the only ones that matter. The idea that the human species holds a dominant position over others and is thus separated from nature stems primarily from the Western intellectual tradition and history of science (Wildcat and Pierotti 2000, 133). Wildcat's and Colebrook's reasonings resemble those often highlighted in material ecocritical texts, in which more-than-human material—that is, "storied matter"—is attributed with narrative capacities. Serpil Oppermann (2019, 115) argues that the purpose of material ecocriticism is to slow the pace to better experience the world from a nondualistic perspective and perceive all the vitality and creativity inherent in more-than-human material and the bodies and relationships they co-create. Here, the new materialist theory plays a significant role, and concepts such as intra-activity and matter are always entangled in a meaning-making process, in which discursive and material phenomena cannot be separated but continuously reshape each other in an ongoing flow (see also Wingård's chapter in this anthology for a similar discussion). A prerequisite for reading matter, bodies, and subjects as constantly reshaping is that their compositions are permeable. Nancy Tuana (2008, 188–213) uses the concept of porosity to illustrate how bodies of different kinds are porous and can be affected by environmental disasters, noting that porosity is essential for understanding material as creative. In Karen Barad's (2007, 110) thinking, the concept of intra-action is central, indicating that nothing is separate from anything else, and that everything comes into being in the relation between entities. Serenella Iovino (2014, 103) discusses the "vast landscape of porosity" and points out that porosity refers not only to permeable membranes that exist between our flesh and the world but also illuminates the connections between bodies and the discursive worlds they move in. This blurring of boundaries between bodies and materials is reminiscent of the bridging function of a metaphor, by which language/discourse and materiality slide in and out of each other to create new meanings and images.

In my analysis of Trotzig's short story, I will demonstrate how this blurring of boundaries occurs in the text and how the poetic imagery, with its metaphors, creates a world filled with porous ontologies in which bodies

and beings that are porous and engage in intra-active relationships with one another. I apply a close reading technique inspired by the concept of attention, in which I attentively read the text and extract its various expressions of permeability, sensuality, and the more-than-human. The idea of slowing down to better experience the environment and its stories should not be solely attributed to Oppermann's theoretical field. Similar to the ideas of new materialism, material ecocriticism draws inspiration from indigenous epistemologies and research fields. For figures like Wildcat and Wall Kimmerer, the concept of attention is part of indigenous knowledge about the *web of life*, which entails viewing the world as full of relationships rather than resources (Wildcat 2009, 64). In modern Western-influenced societies, it is primarily humans—and, occasionally, other animals—that are considered persons.

From a linguistic perspective, concerns arise when talking about narrative material, because doesn't narration imply an active subject, a person? In *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teaching of Plants*, Wall Kimmerer (2013, 56–57) describes how the world opens up and diversifies when more entities are granted subjecthood. She compares how a language is structured with how the relationship with the more-than-human unfolds. Are there grammatical possibilities to refer to, for example, a tree as *she* instead of *it*, or to use *who* instead of *what* when talking about, say, a mountain? It would then become possible to relate respectfully to the more-than-human while understanding that it carries stories of, for example, a place's geological history or a plant's living conditions. In the end, a comprehensive understanding of a more multifaceted and complex world could be experienced. The way words are used to generate new perceptions of the world or events can also be discussed in relation to metaphors, whose function is often described as linguistic innovation.

METAPHORICAL IMAGERY

I have proposed that the econarratological method could be deepened by devoting more attention to poetic imagery. The study of metaphors is commonly associated with rhetoric, but there is reason to include metaphor analysis in the econarratological field as well. This is because, in its most basic form, a metaphor involves narration through linguistic combinations. The metaphor has also been of interest to theorists within ecocritical and biosemiotic literary studies in recent years, where its function and structure are considered to be more grounded in material and biological aspects than previously emphasized (Wheeler 2016, 4). These material aspects bring the metaphor closer to ecocritical fields, as it becomes intriguing to consider the

relationship between language and matter through a figure of speech that is itself founded in both the discursive and the material.

Nancy Easterlin explores the cognitive origins of literature in *A Biocultural Approach to Literary Theory and Interpretation* (2012) and asserts that the human consciousness and body are part of the world, just like those of all other species. Humans cannot be separated from nature, which implies that the human perspective is a part of the world, while the world comes to us through our perception (Easterlin 2012, 105). However, the problem remains that the human understanding of the world and the narratives it creates is filtered through anthropocentric perspectives. Nonetheless, in the intricate, elastic, and ever-changing relationship we are part of, there might still be room to develop and refine understandings of the more-than-human. Instead of giving up on the idea of a fruitful analysis of the more-than-human, we can use our imagination and abilities to create new ways of reading and interpreting the world (Colebrook 2014, 22–23; Easterlin 2012, 23).

Easterlin is also interested in the metaphor, which has sometimes been accused of leading the reader away from nature. Easterlin demonstrates how the metaphor can be understood as part of an evolutionary change, since it operates with shifts in language that initiate a movement toward something else. The metaphor creates new images and thereby new understandings that can open a space for something that might otherwise be difficult to grasp. Therefore, the metaphor does not need to be regarded as separate from materiality; its patterns of movement can be found in nature's own processes of development, adaptation, and creativity. Hubert Zapf (2012, 66) argues that metaphorical imagery can demonstrate how nature and culture actually interact with each other rather than separate from each other. Wendy Wheeler (2012, 75) also advocates for the proximity of the metaphor to nature and highlights play as an example of how both creative language and nature's biological processes significantly rely on a creative force that explores and solidifies relationships between species and their potential survival and change. Wheeler takes the parallel even further and argues that the reader, in their process of interpretation, is actively involved in playing with the narrative to create meaning. To this argument, I would add the author, who should reasonably be seen as participating in the same metaphorical and creative movement from this perspective. Wheeler is closely aligned with Easterlin in her observations about the structural similarity between figurative language—especially the metaphor—and evolutionary biological processes. Easterlin emphasizes the metaphor's bridging function, by which associations from various fields of knowledge can converge and create something new (Easterlin 2012, 170). A metaphor becomes a fusion, Wheeler (2016, 87) contends, between something familiar and something unexpected, resulting in semiotic ambivalence. In its composition and function, the metaphor already

carries a creative force and movement, becoming a kind of linguistic intra-action of material, discursive, aesthetic, and historical phenomena, where nature is poetry and poetry is nature (Wheeler 2016, 87).

In the upcoming analysis example based on Trotzig's short story "Ormflickan," I bring attention to the metaphorical imagery as a possible entry point for an econarratological study of a literary work.

ECONARRATOLOGY: HUMAN AND MORE-THAN-HUMAN

As the initial discussion has shown, narratology has been considered less suitable for ecocritical analyses owing to its assumed anthropocentric roots. However, as the world changes, so do the roles and meanings attributed to narratives. There is an emerging understanding that it is possible to read and interpret the depictions of the environment and the more-than-human beyond traditional narratological descriptions of them as mere backdrops or props for the central protagonists, humans. Dying coral reefs, floods, fires, and contaminated waters are just a few elements of the Anthropocene landscape in which we now live, and they draw our attention even in literary and oral representations.

In *The Storyworld Accord: Econarratology and Postcolonial Narratives* (2015), Erin James presents the econarratological method she later developed in the anthology *Environment and Narrative: New Directions in Econarratology* (2020). Here, both contextual and cognitive fields within narratology are interwoven with ecocritical perspectives in an attempt to show how narratology can be a tool to study the ways human storytelling can include more-than-human perspectives on spatiality and time. A few years before James' book was published, Markku Lehtimäki (2013) wrote the groundbreaking article "Natural Environments in Narrative Contexts: Cross-pollinating Ecocriticism and Narrative Theory." In this article, Lehtimäki combines elements of classical narratology with an ecocritical interpretation and points out that it is impossible for a description of nature to be free from anthropocentric perspectives because the text is written and read by humans (Lehtimäki 2013, 129). However, he also argues that a text, despite this limitation, can create a more or less dialectical relationship between nature and language, partly through its narratological structure. By a dialectical relationship, Lehtimäki means a kind of mutual and dialogical connection between form and content, in other words, between narrative elements and the depiction of the fictional world's particularity. Studying not only *what* happens but also *how* it happens in terms of narrative techniques makes it possible to understand why certain narratives seem to challenge

normative and dualistic conceptions of boundaries between humans and nature (Bracke 2018, 222).

Examining how a narrative is constructed by using metaphors and what impact these metaphors have on the story becomes a methodological approach. One way to conduct an econarratological reading is to observe whether the narrative voice is distinct from the world being narrated; that is, to determine whether it is an extradiegetic narrative position. Such a position, in itself, does not ensure that the text challenges normative, anthropocentric storytelling, but it can create a fictional world in which humans are wholly or partially absent (Lehtimäki 2013, 128). This can give the illusion that the narrative is being told from a more-than-human perspective. If the narrative voice is explicitly nonhuman, this illusion is strengthened, as is the case when the focalization is from, for example, a dog's point of view. However, econarratology also questions one of the most common narrative positions: the omniscient narrator. This position often coincides with an external perspective, and James (2020, 197) raises the question of whether it is even possible to tell someone else's story without also telling one's own. Instead, in line with other researchers, she argues that no subject—not even a so-called omniscient narrator—could stand *outside* or be untouched by the Anthropocene. Everyone experiences this time in one way or another, thus breaking the illusion of a detached, god-like narrative voice. In Birgitta Trotzig's authorship, this narrative position is common but, as I will demonstrate in the analysis example, there are ambiguities from which another, more complex and divergent narrative position can emerge. There are also more subtle narratological experiments that involve how time and sensibility are constructed, which can create a different kind of tempo through which more-than-human species and materials become visible. In this context, econarratological reading involves paying attention to how time is depicted in relation to place and body.

What is also noticeable within econarratology is a certain scepticism about material ecocriticism's treatment of matter as text, rather than something that is represented in the text. An important distinction between material ecocriticism and the understanding that more-than-human matter can carry stories, as expressed by Wildcat and Wall Kimmerer, is that material ecocriticism often works with texts and thus does not begin the analysis from a lived, material reality. This is an important distinction to keep in mind: When I study mosses in a literary novel, it is not the same as when the bryologist Wall Kimmerer studies mosses in the Canadian forest. Our objects of study differ because mine is a linguistic, creative representation of mosses, whereas Wall Kimmerer's is the living, organic moss as she experiences it in its natural habitat. However, it is entirely possible to approach the written text and its representation of the world to see how language includes and evokes traces, scars, deposits, and roots from more-than-human bodies. In this way, literature can

showcase the creativity and creativity of matter, and the discussion can progress to explore how a narrative can challenge normative temporal narratives and loosen anthropocentric perspectives despite being a human construction.

AN ECOCRITICAL METAPHOR ANALYSIS

I will now use parts of the econarratology toolbox in an analysis of Birgitta Trotzig's short story, "Ormflickan," from 1975. The story moves in the borderland between allegory and fairy tale but includes realistic elements. Both James and Lehtimäki argue that ecocriticism should engage with a literature that is not solely rooted in realism, climate fiction, or genres with descriptions of nature. Astrid Bracke (2018) is even more explicit in her argument regarding the ecocritical potential of the fairy tale genre, showing how the structure and characteristics of fairy tales, among other things, enhance a "transcorporeal awareness of relationships between humans and nature" (222). Trotzig's authorship is often associated with theological questions about the human condition and the relationship between the individual subject and the societal body in which she participates. Reading "Ormflickan" from an econarratological perspective can thus open the fictional world to reveal more stories than just that of human life conditions. This analysis will demonstrate how the world portrayed in the narrative reflects the title's duality but also establishes a setting in a broader diegetic sense, where temporal, spatial, and sensory elements mirror an understanding of the world as intra-active and filled with porous ontologies. The analysis begins precisely where the story starts. In the title, the boundary between human and the more-than-human is challenged; the title "Ormflickan" ("The Snake Girl") evocatively brings together the concepts of snake and girl.

The merging of the human with the more-than-human creates an image of something that extends beyond a dualistic understanding of the body. Here, the reader already gets a glimpse of the porous ontologies the narrative creates. Lehtimäki (2013, 128) argues that one way narratives can establish a dialectical relationship between text and nature is by removing human presence from a text. Trotzig's novella begins contrary to Lehtimäki's example, with human presence from the very beginning, partly in the title, where the word "girl" signifies a human creation, and partly in the opening line: "It was in the region where a young girl, when she dies, is dressed in a crown of colourful paper flowers." The story occurs in a place where people live and die, and the crown of paper flowers can be seen as a marker indicating that cultural traditions are also alive in this place. This fleeting statement that functions as a geographical (albeit vague) locator, is followed by a description of the landscape:

> The waves wandered desolate, hissing. It thundered. The seagull dived. From the carrying gust down into the cold, heavy, drifting darkness—yet it came up with sustenance. Rested again in the salt-smoking wind, observing the journeys of the wave foam, the sand ridges that were clearly visible through the clarity and coldness of the water—observed the black depth in everything, observed the sustenance. Inland, the roads went, branching out. The black pine forests thundered like unfamiliar, immense harps in the wind. Fallen branches piled up in stacks, bearing witness like bones. Clear, round rodent eyes peered up from sand-grass holes, searching, scanning. Sand dunes undulated endlessly, wild, soft, fragrant. Inside, stone walls and fields began. (Trotzig 1975, 53)[1]

In these passages, humans are no longer particularly present in the narrated world. It is only in the first line of the second passage that a trace of humanity appears through the mention of roads branching out. The narrator of the novella is extradiegetic; they are positioned outside the narrated world and do not seem to be a character in the story. Like a voice without a body, they hover beside the narrative they tell, expressing knowledge of the past and present of the narrated world. These passages contrast with the initial words about the paper crown, which carried the weight of death. The contrast occurs through the metaphors that depict life in its various manifestations: waves wander and hiss, sand dunes undulate and emit a scent, seagulls dive, and trees resound. It is a world where the more-than-human is included as creative and individual, not passive and mute. Alliterations such as "the waves wandered" are also present, contributing to a rhythmic sense of the narrated world. This is a world that makes itself heard and known and has something to tell (Wall Kimmerer 2013, 58). The narrative thus creates a world where the human and more-than-human coexist, where life and death intertwine.

In this world, the Snake Girl grows up with her mother and absent father. The relationship between the daughter and mother is depicted as close and warm; yet it also—like the title—blurs the boundaries between bodies: "Eye in eye, the two a single figure, a single warm breath from one to the other" (Trotzig 1975, 56). To breathe in each other's breath is to blend their bodies, but soon it is not just between human bodies that this blurring occurs. The first time the girl associates with a reptile in the story occurs when she, as a young child, encounters a snake at the corner of the house. The snake meets the girl's gaze, and she becomes frightened, "as if something took hold of her" (Trotzig 1975, 59). The snake's gaze is described as "glistening" and perhaps "deeper than everything" (Trotzig 1975, 60). The world is described as a single living web, and the snake's gaze reveals something about the continuation of the story; it will lead the girl and the reader deeper into the world's web.

The web of life can be discerned through the presence of attention (Wildcat 2009, 5). In "Ormflickan," the narrative voice's attention to the surrounding world is sensory and perceptive. As the girl grows older, she feels both her mother's embrace and the house they live in becoming too confining, leading her to seek solace in the surroundings. She feels her body growing and becoming strong like "a plant, like a bird, like a snake" (Trotzig 1975, 66). Smells and sounds are sometimes experienced so intensely that they contribute to a spatiality in which the scents of lilac and jasmine form walls (Trotzig 1975, 77). The fact that the girl, like her mother, has an intuitive relationship with nature is hinted at early in the novella. It is the mother who teaches the child about how everything is interconnected in the world's web, and she is also the first to sense that, behind the girl's forehead, lives an "animal world" (Trotzig 1975, 56).

After the mother dies from a prolonged illness, the girl leaves the farm and heads east toward the forest, the same direction as the sea. The forest is portrayed as a world of its own, a growing and living space the girl enters (Trotzig 1975, 79). Depictions of the forest as a dense and otherworldly place—characteristic of the fairy tale genre—resonate within the narrative:

> The forest is the whispering world where yet no clear speech is heard: where everything is both revealed and concealed: where everything resembles everything: where the trunks of alder trees are bodies and the leaves are mouths [. . .] seen through clear muddy water, through black mirror reflections: where the darkness of leaves on the inside resembles velvet [. . .] Be lost! Be lost!—the forest is the place where everything resembles everything, where everything at once meets and separates through the intimate closeness and cold mockery of likeness. Nowhere are destruction and birth so close to each other—as if they were really the same figure. Nowhere like in the forest—in the thousand shapes of light-sap and shadow-caves. (Trotzig 1975, 79)[2]

The narrator's voice describes the forest with a certainty about its nooks and crannies, a narrative perspective that sees deeply into the forest's organic details and pays attention to them. This is a whispering world in which death and life envelop each other. Trotzig's sensual use of language is recognizable in the previous quote from the beginning of the story, in which word compositions, alliterations, and repetitions create additional dimensions of the story world. In the forest, there are black mirror reflections, light-sap, shadow-caves, and leaf darkness, metaphorical imagery that contributes to a dense yet somewhat alien portrayal of an environment many people have visited at some point. These linguistic plays point to the creative force that Wheeler argues the metaphor creates: a creativity that it shares with biological processes (Wheeler 2012, 75). Indeed, the language used in the description of

the forest gives the illusion of being close to the depicted nature, as the words emerge in sync with the portrayal of the forest.

The forest is a place where one can get lost. Taking a closer look at the statement "*Gå förlorad*!" ("Be lost!") reveals that it can suggest both getting lost geographically and losing one's own self. The entering subject's previously secure form and core are destabilized in the forest, and the girl is supposed to find out who she "would become" (Trotzig 1975, 79). The forest is depicted as a place where everything "meets and separates through the intimate proximity of likeness"; thus there are no static, impenetrable bodies, no clear boundaries between plant and mouth, between life and death, between girl and snake: "It [the snake] was now her innermost. It was her heart. It was who she had always been" (Trotzig 1975, 80). The forest challenges the boundaries between the human and the more-than-human, something that Bracke (2018, 230–31) argues is typical of the fairytale genre, which stretches the notions of the imaginary and the real. In Trotzig's forest landscape, it remains unclear what actually happens to the girl, similar to the ambivalence in the title. There is ambiguity in how the reader should interpret what happens in the forest, whether it is a metamorphosis, a dream, or a death.

Erin James writes how a narrated world can connect two worlds that are otherwise considered separate, such as the world of the living and the world of the dead (James 2015, 170). In "Ormflickan," the girl seems to move in both of these worlds and, in the forest, the two worlds merge: "Nowhere are annihilation and birth so close to each other" (Trotzig 1975, 79). One way to understand how the narrative creates this duality of worlds is to pay attention to how the metaphorical and finely poetic language loosens the boundaries of what is perceived as real and unreal. As Timothy Morton puts it, it becomes an impossible task to discern the level of reality the narrative operates in when metaphors blend into one another (Morton 2007, 42; see also van Ooijen's presentation of Morton's method in this anthology). The loosening of boundaries contributes to the creation of porous ontologies; girl and snake, life and death point to a reflection of the title in which two seemingly distinct parts intertwine. Slowly, the girl's body and the forest begin to merge: "towards dawn—she was frozen, dewdrops beaded on her face and hands, sparkling like cold scales, it was as if the grass had started to grow up through her skirt through the damp, dark hem" (Trotzig 1975, 81). Indeed, something remarkable occurs both in terms of materiality and temporality in this world where grass can grow into a person's clothing overnight. The perspective of time seems challenged by this portrayal of a growth that can suddenly be perceived by human perception; other time scales blend into the girl's experience. Here, we can once again connect with Wildcat's concept of attention, which emphasizes how the world consists of rhythms different from our own (Wildcat 2009, 102). The narrator depicts the world's ever-changing

and entangled nature, in which the human and the more-than-human cannot be distinguished, and the body becomes intertwined with the forest. The metaphorical statements "now the green forest was her own body and limbs [. . .] the forest of death full of living beings" (Trotzig 1975, 80) embody the dual nature of the metaphor as both discursive and material. They point to the cyclical time and the biological cycle; a body that becomes a forest can be a decomposing body that turns back into soil and becomes a fertile ground for vegetation. Once again, the narrative's spatial and temporal levels are uncertain: Is she undergoing a metamorphosis, a dream state, or death? As Wheeler (2016, 87) expresses it, poetry is nature and nature is poetry. And death, in the movement of the cycle, is life.

As the novella approaches its conclusion, the girl has lived in the forest for several years, but the exact duration seems as unimportant to the narrator as the Gregorian calendar is to the forest. Instead, the image of the body found by the villagers, half submerged in the earth and aged, becomes more significant. Time lies in decay, but the girl extends beyond this too: "The white shoulders heaved and disappeared forward through the waves, just like the snake's loops [. . .] so the snake girl swam straight into the delivered sun, in whose light she would burst" (Trotzig 1975, 88).

From an econarratological perspective focusing on metaphorical language, Trotzig's novella "Ormflickan" can be read as an allegory of the world as a creative place filled with intra-active porous ontologies. Taken together, the duality in the title, combination of genres, linguistic playfulness and use of metaphors, extradiegetic omniscient narrator, attention to the more-than-human, and motifs of metamorphosis create a narrative that portrays the world from a perspective that humans may not always be capable of experiencing. Through its presentation, the short story manages to display the world in a unique and creative way.

CONCLUSION

Econarratology has emerged as an attempt to resolve the tension between the ecocritical interest in the relationship between text and the world and classical narratology's focus on narrative techniques. As ecocritical approaches often seek to challenge myths about the "natural" world and present alternative perspectives on our environment, there has been scepticism about using a methodology perceived to be rooted in anthropocentrism and the human gaze. Nevertheless, one of ecocriticism's most common objects of study—namely, literature's anchoring in the human—is emphasized by theorists such as Erin James, Markku Lehtimäki, and Nancy Easterlin. The landscapes, habitats, and

individual species depicted in literature are created through language and are thus narrative representations of the organic, growing, and decaying world.

In this chapter, I have shown that econarratology can include elements of metaphor analysis and a form of attentive reading and how these methodological elements can interact; I have also demonstrated that there is room for aesthetic, thematic, and narrative studies in ecocritical analysis. This is both a development of narratology's methodology and a development of various ecocritical theories. This chapter's analysis demonstrated how genre, narrative perspective, and playfully metaphorical imagery can together create a storied world with ambiguous ontological boundaries. The demonstration of this method shows how these elements interact such that the storied world appears to include the more-than-human in a significant way. Considering what genres the novella moves between, its extradiegetic, seemingly neutral narrative perspective, and its dense, playful language makes it possible to shed light on how the story, to some extent, extends beyond a narrative about human conditions. Through the methodological use of *attention*, a narrative world emerges that unsettles normative notions of, for example, life and death and the human body's boundaries in relation to the environment; moreover, this is a story that attempts to depict sensory experiences of the world that would otherwise remain hidden. The story of the girl can thus be read as an allegory of a creative and intra-active world in which the maxim "what we do not see does not exist" is challenged by the narrative's attentive sensibility.

NOTES

1. "Vågorna vandrade öde, fräsande. Det dånade. Måsen dök. Från den bärande blåsten ner i det kallt tungt drivande mörka djupet—den kom ändå upp med näring. Vilande åter i den saltrykande vinden, såg vågskummets vandringar, sandrevlarna som de tydligt syntes genom vattnets klarhet och köld—såg svartdjupet i allt, såg näringen. Inåt land gick vägarna, förgrenade sig. De svarta tallskogarna dånade som främmande väldiga harpor i blåsten. Nerblåsta grenar hopades i travar vitnande som ben. Klara runda gnagardjursögon blickade upp ur sandgräshålorna, sökande, spanande. Sandbackarna böljade ändlösa, vilda, mjuka, doftande. Innanför började stenmurar, åkrar."

2. "Skogen är den viskande värld där ännu inget tal hörs tydligt: där allt är på en gång uppenbarat och fördolt: där allt liknar allt: där alträdens stammar är kroppar och bladen munnar [. . .] sett genom klart dyvatten, genom svartmörkerspeglar: där bladmörkret på insidan liknar sammet [. . .] Gå förlorad! Få förlorad—skogen är den plats där allt liknar allt, där allt på en gång möts och skiljs genom likhetens innerliga närhet och kalla gyckel. Ingenstans är förintelsen och förlossningen varandra så nära—som

om de egentligen var samma gestalt. Ingenstans som i skogen—i de tusen gestalterna av ljus-saft och skugg-hålor."

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Chapter 8

Animal Studies

Metonymic and Zoopoetic Ways of Reading

Amelie Björck

In this chapter, we turn our attention to literary animal studies as a particular field within the broader domain of ecocriticism.[1] Since animal studies has its own history and specific premises, I will begin with an account of the niche field of animal studies within ecocritical research. Subsequently, I will present two basic and highly combinable reading approaches within literary animal studies, which I call metonymic and zoopoetic readings. These approaches will be concretized in the latter part of the chapter, where I present some examples of and suggestions for how these kinds of readings can be performed.

The purpose of literary animal studies is to highlight and use the knowledge generated by literature, concerning relations and interactions between humans and other species. This requires a revision of accustomed anthropocentric methods of literary analysis, and in this chapter, I describe how this rethinking has taken shape within the field of animal studies. The hope is that animal studies can contribute to a broadening of focus in academic knowledge production, from species-exclusive human self-reflection to a relational focus that includes more subjects and agencies—a goal that animal studies shares with the ecocritical field as a whole.

ANIMAL STUDIES AS PART OF ECOCRITICISM

Since the 1990s, animal studies has emerged as a perspective with its own identity and history but also in close association with ecocriticism. The common starting point lies in the awareness of the devastating impact of anthropocentrism on the global diversity of life and the conviction that the humanities must share responsibility for change. Obviously, knowledge needs to be broadened from human to art-transcending relationality. Ecocriticism and animal studies draw support for this expansion from a partially shared set of theoretical resources, where Michel Foucault's power analyses, Jacques Derrida's deconstruction of the animal/human dichotomy, and Donna Haraway's ideas about the mutual interdependence of all living things ("entanglement") are some of the important intellectual reference points (Foucault 2003; Derrida 1994, 2002; Haraway 2003, 2008). The academic emergence of the eco- and animal study fields also can be traced back to links between academia and activism—in the case of ecocriticism, to the environmental movement, and in the case of animal studies, to animal rights activism. Within the field of animal studies, the orientation called "critical animal studies" emphasizes animal rights issues as an especially important focal point, while other orientations, such as animality studies or zoopoetic studies, do not always work toward a goal of abolition and veganism.

Literary and cultural animal studies are part of the ecocritical field, but they also differ in their specific foci on *living* beings and their (power) relationships. Unlike the type of ecology- and system-oriented ecocriticism, which according to Greg Garrard, "demands moral consideration for inanimate things such as rivers and mountains, assuming pain and suffering to be a necessary part of nature" (Garrard 2012, 149), researchers within animal studies connect their ethics to the domain of sentient beings and emphasize that much of today's suffering is a result of human intervention. Therefore, the aim is to work to prevent the suffering that humans, directly and indirectly, cause to other beings. For example, in their criticism of the animal industrial complex, animal studies places greater importance on the suffering of animals than on climate aspects, if such priorities must be made. Within animal studies, the anti-anthropocentric stance is always an animal ethical stance.

TWO PERSPECTIVES WITHIN LITERARY ANIMAL STUDIES

Literary animal studies are concerned with how the lives of nonhuman beings, as well as cross-species experiences, unfold and affect literature. This can

include studying how interactions or transformations between animals and humans are depicted in a novel, or examining literary forms that use poetic language to undo the very idea of species categories, as well as reflecting on how these representations ethically and culturally interact with the reality surrounding the work's fictional world. As Ann-Sofie Lönngren has proposed, the basic animal studies reading act can be described in terms of *following the animal*: tracking the literary animal through the text's various environments and layers and monitoring the animal's actions, disappearances, and returns—as well as following it out of the text to the literary animal's real and living counterparts (Lönngren 2015, 27–31). The latter involves the kind of contextualization that literary scholars usually perform, to be able to reflect on the social relevance and transformative/ethical implications of fiction.

Given the diverse range of study objects, approaches vary, but in simplified terms we can speak of two fundamental perspectives. While in practice, these are often combined, this chapter will, for pedagogical purposes, describe them one at a time. One of these fundamental perspectives coheres around questions of power and representation: How can we understand the literary text's presentation of nonhuman animals and human-animal relationships? Whose history is being told, and for what purpose? How are the particular lives depicted linked to actual social power systems and general life conditions? This type of criticism presupposes the same kind of connection between literary animals and actual animals as we take for granted when reading about literary men, women, queers, racialized individuals, children, and so on—and interpreting them in relation to real people, contexts, and societal structures. The questions thus relate to a critical theory tradition, with ideas from gender studies, queer studies, and postcolonial studies being of particular importance. Often, an intersectional perspective is also applied, which considers the interaction between different power hierarchies. However, such a study also requires some familiarity with the depicted species' own "culture" and lifeworld. The perspective becomes particularly relevant when dealing with literary depictions that thematically explore social situations and historical and/or global problems.

The other fundamental perspective focuses on form and aesthetics—not in a general sense but from a more-than-human ethical standpoint. Is it possible to do justice to a nonhuman being and world using human language, or does it always involve reduction, negative anthropomorphism, or even abuse? How does the studied work's language avoid putting the animal in "symbolic service" as a metaphor for humans and human behavior (Driscoll 2015, 213)? What does the literary animal do to the text; how does the representation answer against the animal's agency and modes of expression? Theoretically, these types of questions are connected to linguistics and to phenomenological and posthumanist philosophy, but knowledge of the animal in question and

its ways of being and acting is also required. The perspective is particularly fruitful in relation to experimental and poetic expressions that focus on the materiality and sensory aspects of language, as well as the perception and lifeworld of nonhuman beings. Both of these fundamental perspectives are often activated in the act of interpretation, although the emphasis can vary depending on the nature of the studied work. I will return to and specify possible approaches—the most important thing at this stage is to note the great political significance that animal studies places on how a particular reading approach is chosen. Through daring to question established reading methods a literary animal study can extract knowledge that has been previously overlooked. Thus, the ambition of animal studies is not limited to understanding individual works in new ways; the overarching goal is to revise the generally agreed upon conventions of literary studies and to further build the discipline so that it actively participates in a sustainable knowledge paradigm. The starting point is a strong awareness of the anthropocentrism of the tradition of literary interpretation—as well as an understanding that literary works are often far more complex than this interpretative tradition has claimed.

THE HISTORICAL LIMITATIONS OF LITERARY INTERPRETATION

In an insightful article, literary scholar Kári Driscoll describes a paradigm shift in the role of animals in literature and art that can be discerned in the early 1900s (Driscoll 2015). Driscoll argues that literary animals at this time begin to behave unexpectedly: They cannot be understood merely as simple symbols for human ways of being but rather emerge as sovereign figures in their own right.

Driscoll's observations differ interestingly from the often-cited ideas about the place of animals in modern art and popular culture, presented by author and art historian John Berger in his book *Ways of Seeing* (Berger 1972). Berger argues that the gradual disappearance of domesticated animals from cities during the expanding industrialization has the effect of draining animals of real content in the human mind, leaving them to function as surfaces of inscription for all kinds of human ideas and needs. Thus, while Berger criticizes the general symbolic commodification of animals, Driscoll points to the renewed interest in animals in certain art and literature, which does not necessarily empty them of their uniqueness and content. Authors such as Rainer Maria Rilke, D. H. Lawrence, and Franz Kafka, or an artist such as Franz Marc, have a genuine interest in the worlds and lives of animals, in the kinship between animals and humans, and in human animality—and this cluster is explored in innovative and experimental ways.

Driscoll understands this heightened interest in animals against the background of the urban, modern human experience of alienation and emptiness in times of increased capitalism and secularization. He also highlights as a central factor the waning belief in any direct correspondence between language and reality. These connections between modernization, language, nihilism, and animality were things to which Friedrich Nietzsche had devoted his philosophical thinking a couple of decades earlier. In the book *The Gay Science* (1883), Nietzsche calls man "the insane animal, the laughing animal, the weeping animal, the unhappy animal" (Nietzsche 2001, § 224, 145). According to Nietzsche, the unhappy animal, man, has built a civilization to a level of abstraction that has made him homeless in the immanence of life; man has ceased to participate in the immediate and enveloping presence of existence. The cause of man's unhappiness, Nietzsche argues, lies in the symbolic language that allows him to think about himself, his life, and his death from an outside position. Similar ideas about how symbolic language is central in experiences of human alienation from creation are echoed by later thinkers such as Martin Heidegger, Jacques Derrida, and David Abram.

Several authors and artists in the early twentieth century saw linguistic and artistic experimentation as the place where human affinity with the rest of the animal world could be created and might (re)emerge.[2] By seeking a place where language borders the unspeakable/nonhuman, poetry would perforate the human species' self-imposed barrier against animality. Thus, greater attention was directed to animals in new and creative ways.

As Driscoll points out, this trend is apparent in literature, at least from the early 1900s. Still, literary studies as an interpretative discipline did not take seriously the presence of animals in literature until much later. The same goes for literary criticism in the daily press and cultural magazines. As a literary scholar, paying attention to the literary dog, horse, or frog as figures with intrinsic value and agency has, until the last couple of decades, meant turning against a strong intradisciplinary interpretative tradition. For example, proposing that George Orwell's novel *Animal Farm* can be read as a depiction of oppression against animals, and their uprising, and not just as an allegory about the Soviet power apparatus, would have been deemed subversive. The literary close-reading tradition has, since its inception, prioritized expanding knowledge about human culture, while animals have either been judged as uninteresting background props or understood figuratively as symbols, similes, or metaphors for human beings and human relationships.

Ever since the breakthrough of New Criticism within literary studies, a metaphor generally has been explained as a rhetorical figure in which a "vehicle" conveys a way of seeing a "tenor." Therefore, in animal studies, "reading metaphorically" has come to summarize and signify a kind of hierarchical reading method that expects the literary animal to be about something else.

On these grounds, such a method has been criticized and rejected. This kind of metaphorical reading has been common in relation to fable-like narratives, where animals are quite unambiguously constructed as proxy humans. It is also present in more realistic portrayals, where animals that take a central place in the plot have tended to be read as "vehicles" or "narrative prostheses" (Mitchell and Snyder 2000), whose right to exist lies in promoting and supporting stories about humans. Read in this way, animals are, in Cary Wolfe's formulation, positioned "off-site" in the text (Wolfe 2003, 13). They emerge as amplifiers of complex human emotions and desires—but on a stage that can be shut down at any time.

Wolfe draws his examples from Hemingway, whose bulls, involved in a deadly fight in the bullfighting arena, mirror and strengthen the emotional content of the power struggle between the men in the novel. The off-site position of the literary animal in this scenario implies that the figure of the bull becomes "exhausted" once the metaphoric interpretation is made: The spotlight directed at the bulls (for example, in the novel *The Sun Also Rises* 1926) is turned off, and when the plot is summarized, the novel is described as a powerful portrayal of masculinity in a "lost generation." The bulls are not considered important. This mechanism is similar to what theater scholar Tiina Rosenberg has called "the dramaturgy of restoration" in a feminist context (Rosenberg 2000): While an alternative reading, where the woman/animal is seen as central was briefly possible, this reading is quickly pushed aside again in favor of a more conventional understanding, which, in the case of human-animal relations, focuses on what the humanities typically focus on, namely, the human drama. Normality is thus restored.

PROBLEMATIZING THE READING TRADITION

With the above outlined anthropocentric reading tradition as heavy baggage to be relieved of, literary animal studies have devoted much energy over the past thirty years to thinking differently about the ethics of reading. Each literary text undoubtedly privileges certain interpretative approaches over others (authorial intention and reading norms guide the reader through the text)—this is why a conscious challenging of these given interpretative paths can make a big difference. Starting from earlier, established interpretations of classical works and then complicating and supplementing them with an animal studies perspective can be a viable analytical approach that generates knowledge about both humans and animals and, above all, about the interdependence of all living beings.

The intervention of literary animal studies within methods of textual interpretation can, but need not necessarily, involve a distancing from the

metaphoric and mirroring qualities of literary animals. The importance of the critique lies in its resistance to a routine hierarchization that makes the human world the most significant, if not the only, level of meaning. What the conditions and lives of the bulls say about the lives of humans in Hemingway's work is and remains interesting—but that does not mean the bulls are not interesting in themselves and that the bull-human relationship, both as a linguistic figure and as a social event, should not be further explored.

Accordingly, it becomes relevant to present animals as animals in their own right—as literary beings with social and meaning-making agency in the text. It also becomes interesting to problematize the conventional, metaphorical mode of reading and examine the connections that the animal/human metaphor actually presupposes. Are these connections based on actual characteristics and behaviors of the respective species/group/individual, or are they rooted in a cultural cliché? How strong is the rhetoric of the text that aims to have us read the animal figuratively rather than literally and materially? And can we separate the figurative from literal elements as the metaphorical reading seemingly requires?

Compared to fables, which usually work with completely arbitrary, culturally constructed connections, such as between "owl" and "wise" and "donkey" and "stupid"—and which stage such a highly developed anthropomorphism that the "animals" can hardly be understood as anything other than representatives of human beings—Hemingway's connections are much more complex. The physical connection between the bulls and the men is concrete and social—the bodies exist side by side in the fictive world. The inner (existential, affective) connection is based both on an acknowledgement that men and bulls share many drives and needs and on a *sympoietic* insight (Acampora 2006, 84), assuming that humans (readers) can feel with animals and their bodily experiences without conscious effort.

How human animality—central to Driscoll's historiography above—is portrayed figuratively and materially indeed offers an interesting field of study. Researcher Michael Lundblad has argued that this focus should be seen as an independent field alongside animal studies, since he believes that studies of animality in humans deal more with human cultural history and less with thoughts about literary animals as animals (Lundblad 2017, 1–21). However, since the animality aspect usually is part of a complex construction (as is the case with Hemingway), such a division may seem unnecessarily limiting. Regarding the literary animal as an animal, it is especially interesting whether human animality is presented as something positive or detrimental and stigmatizing to humans.[3] The study of animality is thus always partly an animal-ethical reading. In Hemingway's case, animality is presented as the deepest link between men and bulls and as a highly desirable primitive

force. However, it is telling that the bull in the arena must be killed to satisfy the male libido.

The complex relationality between species in a novel like *The Sun Also Rises* makes it insufficient to talk about animal metaphors in the old vehicle/tenor way. The bulls refuse to stand still in the figurative/vehicle box; they materialize and become physical living bodies more than simply images for something human. Literature scholar Akira Mizuta Lippit, who has coined the term "animetaphor" to describe animals' unruly movements between image and body or vehicle and tenor in literature, poetically writes: "Together they transport to language, breath into language, the vitality of another life, another expression: animal and metaphor, a metaphor made flesh, a living metaphor that is by definition not a metaphor, antimetaphor—'animetaphor'" (Lippit 2000, 165).

In line with this critique of the traditional metaphoric reading, certain eco-critical orientations, such as biosemiotics and bioculture, have—instead of rejecting the metaphor—revisited the concept to revise its meaning. Scholars such as Wendy Wheeler and Nancy Easterlin have pointed out the inherent materiality and creativity of metaphors and their ability to actualize otherwise unspoken relationships between species and between nature and culture rather than creating distance (see Lindbo's and Brudin Borg's articles in this anthology).

Again, it is a matter of interpretation—of what is highlighted in a text or in a metaphor. A traditional metaphorical reading that sees one-sided reflection instead of mobility and multilayered relationships misses the dynamism of literature. What we see in an author like Hemingway are incessant shifts between symbolic and bodily social layers of meaning, movements through which people and bulls come forth. Donna Haraway wisely notes that wherever animals and people come into contact with each other, we find "material-semiotic nodes or knots in which diverse bodies and meanings co-shape one another" (Haraway 2003, 4). In Hemingway, co-creation takes its extreme form in a spectacle where the man kills what he desires/wants to be: the bull. The *contact zone* (Haraway 2008, chap. 8) in the bullfighting arena is hierarchically rigged; the bull's material-semiotic agency is heavily conditioned both by the fiction's men and by the author, who ultimately allows the human to take center stage.

READING APPROACHES WITHIN HUMAN-ANIMAL STUDIES

There are different proposals about how best to describe and name the relevant reading approaches within literary animal studies. Here, I choose

to return to the two "basic perspectives" outlined at the beginning of the chapter in an attempt to concretize two kinds of possible approaches. In the section "Metonymic Reading," I present the ideas behind this term and reading method and suggest how it could be applied to literary works. In the section "Zoopoetic Reading," after initially describing the framework, I focus on a single analysis example—a poem by Les Murray; it is easier to demonstrate this method of reading through doing rather than simply telling.

Metonymic Reading

As an alternative to the traditional metaphorical readings in literary studies, the *metonymic* aspects of animal studies readings have sometimes been highlighted. As rhetorical figures, metaphor and metonymy have often been compared and contrasted in literary history. Metonymy is usually described as a linguistic figure that is based on physical proximity, kinship, and mutual interchangeability, where two words refer to the same phenomenon but bring forth different aspects thereof. "Cup" and "coffee" are in a metonymic relationship, as are "Brussels" and "EU." Since metonymy, unlike the metaphor (traditionally understood), is based on a horizontal relationship between two sides of the same matter—rather than a vertical relationship where an image on the surface of the text (the animal) is thought to stand for something deeper and more important (the human)—the metonym can be said to be closer to the interests of a researcher in human-animal studies.

When Ann-Sofie Lönngren follows the genealogy of metaphor/metonymy theories and explores the idea of a metonymic reading within literary animal studies, she associates this reading with a tradition of "surface readings." A precursor of such a mode of reading is Gilles Deleuze, who avoids seeking a "proper" meaning beneath the surface of the text and thus rejects abiding dichotomies such as signifier/signified and subject/object (Lönngren 2021, 37–50).[4] This is, therefore, a reading that emphasizes the equal material-semiotic status of literary animals and humans in literature.

Here, I think that the metonymic reading style could be further specified so that it also account for the fact that in the metonymic relation, both parties (the cup and the coffee, Brussels and the EU, the bull and the man in Hemingway's case) constitute ways of talking about the same phenomenon. The cup and the coffee refer to a hot drink made from coffee beans; Brussels and the EU refer to a certain administration; the bull and the man—yes, to what common phenomenon are they referring?

The answer: The phenomenon that literary animals and humans in many literary portrayals describe is *vulnerable life*, that is, the reality of being fragile, sentient beings subjected to specific living conditions (staged in the fiction). To illustrate, let me use an example from the book *Zooesis*, where

I read Swedish working-class literature about poor contracted farm laborers (in Swedish language: *statare*) and reflect on how the farmed animals and the human laborers serve as "metonymic" figures in the way I am describing here (Björck 2019, 41–43).

The animals appearing in this literature from the 1930s and 40s have traditionally been read and understood metaphorically and allegorically as supporting and amplifying the story about human, poverty-stricken farmers' suffering. However, it is perfectly possible to instead read with one's attention on both parties, thereby better acknowledging the metonymic relationship between animals and humans as two aspects of the same phenomenon. It became clear to me in my studies that the oxen and the poor farmers in Ivar Lo-Johansson's important short story collection *Statarna* are presented in related ways as vulnerable bodies conditioned by the same external structure: a tenancy system with feudal roots. The oxen and the human workers in the stories are intimately and mutually dependent, with both parties living under conditions of oppression. At the same time, the relationship between the parties is marked by the structure, resulting in humans often taking out their frustrations on the animals. The *contact zone* between the species is thus conditioned by—and reproduces—the overall (human-generated) oppressive structure that pervades all parts of everyday life. The stories about the oxen's and humans' difficult situations mutually reinforce each other. At the same time, the parties' situation jointly constitutes a strong critical statement against the tenancy system and its way of inhibiting the potential solidarity between equally vulnerable and sensitive bodies.

The South African poet and scholar Gabeba Baderoon makes a similar metonymic analysis in an article about J. M. Coetzee's novel *Disgrace*, showing how, in a critical phase of the novel, the author inverts the traditionally pejorative (and, in South Africa, racially charged) act of likening a human to a dog (Baderoon 2017). In the novel, the raped young white woman Lucy, who has lost control over her body and her farm, says she is willing to start from scratch: "With nothing. No cards, no weapons, no property, no rights, no dignity." "Like a dog," her father Lurie remarks, and she confirms: "Yes. Like a dog" (Coetzee 1999, 205). Baderoon argues that this phrase, which some critics have read as racist (in using the dog as a metaphor for black citizens in a derogatory way), should instead be interpreted as Lucy accepting her own metonymic likeness to the animal that owns nothing. The "nothing" associated with the animal's position is also given a special significance at the end of the novel, when Lurie describes the love he finally understands he can give a dog that is to be put down, through petting, whispering, carrying, and supporting it, as "less than little: nothing" (Coetzee 1999, 220). The degree zero at which animal and human unite is both nothing and an immeasurable everything: a precarious vulnerability and humble respect for the coexisting being.

Dogs and humans, in this reading, are seen as related (almost interchangeable) parties and victims to a hierarchical system of power.

One can imagine a long series of works that would benefit from such a metonymic reading. In Hemingway, the relationships between bulls and men, and the vulnerable lives of both, can be understood in light of an overarching machismo structure. In Virginia Woolf's biographical novel *Flush: A Biography* (1933), about the cocker spaniel Flush and his human, poet Elizabeth Barret Browning, the mutual confinement of the companion animal and the woman can be read as effects of a speciesist (species-repressive) and patriarchal life system that makes evident their common bodily vulnerability. The same applies to Sara Stridsberg's novel *Darling River* (2010), where the exploitation of apes and women can be read as two corresponding materializations of a vulnerable life—as well as a long series of other works that depict related and embodied problems at the intersection between women, animals, and normative systems.

In recent years, climate fiction has often depicted how both animals and humans are involved in and struggle with the climate crisis as the overarching condition in the Anthropocene era. In the novel *The History of Bees* (2015), the Norwegian author Maja Lunde follows generations of bees and humans in showing how the decline of bees and human civilization are linked, in a catastrophic future scenario where humans have driven their monocultural agriculture to a point of collapse. If one type of body (insects) dies, the life conditions of the other type of body (humans) also cease to exist. The relationship may be indirect, but the vulnerability in a disturbed ecology is shared.

The American author Barbara Kingsolver portrays movements among butterflies and humans in the novel *Flight Behavior* (2012). When a huge swarm of golden monarch butterflies suddenly appears in the forests around the small city of Feathertown in Tennessee, the local church interprets the invasion as a divine revelation. However, a research team shows that the butterflies are climate refugees—their changed behavior is a desperate response to the extreme weather in their normal overwintering site in the southwest. When winter temperatures plummet, the beautiful butterflies die, just like the Mexican humans who perished in the mudslides close to the butterfly's former habitat. The relationships that transcend species boundaries come to the fore, and the species mirror each other as aspects of the same vulnerable life, against the backdrop of the threat of climate change and people's general unwillingness to listen to facts. A metonymic reading of these cli-fi novels would thus highlight the mutual reflections of vulnerability across species boundaries and examine how the common external conditions affect the lives of and relationships between representatives of different species. Moreover, what knowledge do the novels convey about the possibilities for survival in

the common, yet also human-generated, global context of the climate crisis? What must we do to avoid the bleak scenarios that the novels depict?

The metonymic reading has the potential to twist and turn the positive and negative effects of animal-human proximity in a contested *contact zone.* This constitutes its strength. This approach has clear similarities and overlaps with reading practices in other critical studies traditions (gender/queer/post-colonialism). We can thus reconnect with the fundamental perspective within animal studies I presented at the beginning of the chapter, starting with the question: How are the particular literary lives in this text connected to actual social power systems, and with what ethical consequences?

If, instead, we shift the focus to the second fundamental perspective I described at the outset, which examines the role and reach of language in the literary interplay across species boundaries, a complementary zoopoetic analysis is required.

Zoopoetic Reading

In the above reflections on the place of animals in literature, I mentioned Kári Driscoll's observation that early twentieth century writers, through linguistic and artistic experiments, hoped to restore contact with the animal world and their own human animality and creativity. This desire to explore the affinity with the rest of the animal world is just as noticeable today, in a posthumanist era—but at the same time, knowledge about language in relation to animals and animality has advanced significantly. In the early 1900s, the animal world was regarded as a nonlinguistic sphere. Animals were seen to be at one with their instincts, and human language had to approach this nonlinguistic domain to resume its unity with the rest of the lifeworld. Today, we know more about nonhuman languages, a point reflected in the development of the theory and practice of zoopoetics.

In theoretical texts, the concept of zoopoetics is explained as encompassing aspects relating to the writer's relationship to poetic creation (poetics) as well as those relating to the reader's own relationship to the text—and how these two aspects may stretch the boundaries of the conventionally human. At the core is a belief in the similarities between human language and other species' languages, rather than an idea that a fundamental chasm exists between them.

The belief that the nonhuman world is languageless is outdated: Research has shown that nature is full of it. For example, we know that, upon returning to the hive, bees communicate not only by letting others know the quality of their collected nectar or pollen but also through specific movements, known as "bee dances," which convey abstract information about directions and distances to the places visited (Schürch, Couvillon, and Beekman 2016). Our knowledge of other creatures' clever communication methods is constantly

growing and concomitantly our view of what language can be is also changing. A key figure in this development of knowledge is the German biologist Jakob von Uexküll, who in the early 1900s emphasized that each species, from mollusks to humans, operates in relation to its own special lifeworld (*Umwelt*), that is, develops abilities to respond appropriately to the signs and signals relevant to its needs (Uexküll 1909; 1934). Furthermore, we now know that no being or practice is autonomous. For example, the bacteria in us are crucial for us to maintain our existence as organisms (Hird 2009), and our co-evolution with animals, such as dogs and cows, has shaped who we are (Haraway 2008). There are plenty of nonsymbolic remnants in both our spoken and written languages, such as onomatopoeic words, which testify to cross-species experiences, and in many oral indigenous languages, the connection between language and (human and nonhuman) corporeality remains fundamental.

In the fascinating book *The Spell of the Sensuous*, David Abram accounts for the many ways in which human language is connected to bodies, things, and beings (Abram 2017). When we speak, much of the meaning is conveyed through aspects other than semantics, such as emphasis, voice volume, and accompanying facial expressions and gestures. When we read, the relationships between words, values, rhythms, and typography are vital material aspects that accompany the creation of meaning. Abram also reminds us that children do not learn language through syntax and grammar but by imitating the sounds of other beings and things and by trying out how words feel in the mouth or making gestural connections (pointing) between things and words (Abram 2017, 75). Language is, thus, more bodily and affective than we usually think, and it is part of a more-than-human fabric of meaning-making.

Aaron Moe builds on Abram's ideas in his book *Zoopoetics*, noting that not only humans engage in mimetic sign-making. The ability to mimic others—within and across species—has been an important evolutionary force for many species, developing their unique combinations of rhetoric and gesture (Moe 2013, 7). It is easy to imagine that the kind of poetic human language that concentrates on listening to nonhuman languages and rhythms, one conscious of its own corporeality and nonsemantic expressive repertoire, can actively participate in a more-than-human communication. From this perspective, an exploration of the animality of a text begins not with a deconstruction of an existing symbolic language but with attention to the species-transcending contact zones that language already possesses: onomatopoeia, rhythm, and other comparable aspects. In Moe's formulation, zoopoetics entails a perspective that attends to and is influenced by animals' *poiesis*: " . . . the process by which animals are makers. They make texts. They gesture. They vocalize" (Moe 2013, 6–7). Zoopoetic study, in turn, involves exploring how this occurs and with what effects.

As Kate Rigby argues in a text on "ecopoiesis," despite this creative potential in a shared language fabric, there are good reasons to continue to monitor the shortcomings of literary human language in its attempts to approach the nonhuman world. An overreliance on the poetic language's species-transcending equality risks overlooking anthropomorphic oversteppings (Rigby 2004). Through practice and sensitivity, the poet can deautomatize their linguistic conventions but can never fully give voice to another animal. At best, this is something that the literary work itself recognizes and accounts for. Preferably, zoopoetry should be seen as a human translation or interpretation of something more-than-human—thus as the imprint of an attentive encounter—similar to how other animals translate us in their attempts to creatively relate to us based on their interests and perceptions (cf. Morton 2012, 205–206).

The Australian poet Les Murray has named one of his poetry collections, which contains a wealth of animal poems, *Translations from the Natural World* (1992). Like Aaron Moe, Murray, with his upbringing on a farm, believes in the possibility of trans-species translation. He is well acquainted with the animals he writes about and states in an interview that "living things do all talk, I say, but they don't talk human language, or always speak with their mouth" (Alexander 2001, 244).

It is highly rewarding to read Murray's animal poems zoopoetically, focusing on the main question: How does the poem work with language to do justice to the animal's *poiesis*—and with what effects? Murray often employs a variety of poetical techniques to match the charisma and agency of the animal. Therefore, the zoopoetic analysis should encompass such collaborating aspects as visual appearance, rhythm and sound, choice of words, grammar, semantics, and narrative perspective.

Let us take as an example the poem "Shellback tick" from the collection *Translations from the Natural World*. It is a short, compact poem with a rounded right margin. At first glance, the poem invites an association between the title's tick and its graphic contour. Regarding rhythm, the poem begins with a pulse of rapid notations—"Match-head of groins / nailhead in fur / blank itch of blank"—which performatively corresponds to the discovery of a tick on the body and the concentrated itch (the word "blank" can refer to both the shining head and its absence after removal). Rhythmic spaces between the sentences reinforce the impression of hammer blows against the skin until only the tick's head is visible. The perspective here is that of the host animal: the human discovering a tick on himself or a creature nearby, perhaps a dog.

A shift in perspective and rhythm occurs with the phrase: "O the sweet incision." With this phrase, the poem (and thus the reader) seems to experience the world from the tick's point of view. There is an impression of

pleasure, as the blood, in the next lines referred to as "the curdy reed," begins to flow through the tick's mouthpart. The word "reed" has a double meaning as it associates with both the red blood and the tube through which the tick sucks it in. The O also belongs to the letters that have a strong bodily connection: The human mouth forms an O when the letter sound is pronounced and is shaped in the same way when the mouth is about to suck in something delicious. With this O, a bodily connection is made between the letter symbol, the human (author/reader), and the tick. In the O, tick and human are united for a moment, and the small perforation, "the sweet incision," also links the two bodies and their flows.

The tick continues to enjoy its "duple rhythmic feed" through a fluid series of peculiar sentences celebrating the blood—until the poem switches modes again. Like a customary sonnet, it concludes with a shift from the poem's former here-and-now to what could be understood as a flashback to the tick's emaciated years of waiting on a straw of grass. "Shell to that all" is the closing word, with typical Murrayesque humor. The tick's armor/shell protects against everything—this could be one interpretation. At the same time, through sound similarity, an exclamation is heard from the survivor: *to hell with all that*.

Through this kind of zoopoetic close reading, we can establish that the voice of the poem seeks a close intimacy with the tick and its lifeworld; it even speaks *as* the tick, doing so from a solid ethological insight. Biologist Uexküll uses the tick as a pedagogical example in his writings to describe his *Umwelt* theory, demonstrating that the tick's lifeworld consists of three meaningful elements to which it responds sensorially and motorically: 1) the scent of butyric acid from mammalian glands that prompts the tick to leave its post; 2) the texture of mammalian skin that allows the tick to feel its way to a suitable feeding site; and 3) the temperature of blood that reveals where the food is particularly accessible. This animal needs neither sight nor hearing; the correspondence between its senses, life tasks, and world, is already perfected. Uexküll concludes: "All animal subjects, from the simplest to the most complex, are inserted into their environments to the same degree of perfection. The simple animal has a simple environment; the multiform animal has an environment just as richly articulated as it is" (Uexküll 2010, 50).

In a commentary on Uexküll (and an investigation of Heidegger's misinterpretation of his ideas), the philosopher Giorgio Agamben adds a couple of adjectives regarding the tick's way of being. He calls the tick's relationship to its lifeworld "an intense and passionate relationship the likes of which we might never find in the relations that bind man to his apparently much richer world" (Agamben 2004, 46–47). Intensity and passion are strongly present elements in Murray's poem, where the tick consumes its first and final meal of mammalian blood—the prerequisite for the animal's egg production (its

"mothering," as stated in the poem). The adult tick's life is directed toward this point—toward the "sweet incision." Its ecstasy is embodied through the celebration of the life-giving blood, referred to as "sun-hot liquor" and "ichor," which in Greek mythology carries the meaning of divine blood. The poem stays true to the tick's interest and Umwelt: There is no abstraction, only the thrill of sucking, in contrast to what was before.

The literary scholar Michael Malay has demonstrated how Murray combines two strategies in many of his poems regarding the translation between animal experiential worlds and a human, English-speaking horizon of understanding. The first he calls "analogical" and the second "wild": "'translation by analogy' recognizes the importance of placing oneself in the other's world, while 'wild translation,' acknowledging the mysteriousness of non-human life, tries to go beyond even language itself" (Malay 2018, 184–185).

Thus, the "analogical" strategy starts with an indivisible attentiveness to the animal, as described above, and then attempts, through linguistic means and analogies, to make the animal's world comprehensible to humans. In the poem, an obvious expression of the willingness to translate the tick's world to a human horizon is the construction of the animal as a subject—a poetic ego with a past and strong emotions—despite knowing very little about ticks' self-experiences. Similarly, a word like "mothering" enhances the anthropomorphic understanding of the animal. As Malay notes (similar to Rigby above), there is a risk that an overly extensive analogical approach leads to a blurring of ontological differences and attributes a false voice to the nonhuman.

However, by balancing the comfortable analogies with the "wild" translation strategy, the animal becomes its own being again. The "wild" in the poem can be described simply as the incomprehensible—as that not meant to be fully understood by humans. We can thus interpret Malay's phrase "going beyond language." Regarding the tick poem, its "translation" of the tick's lifeworld contains a beneficial degree of incomprehensibility. The poem's idiom is extremely peculiar; the grammar is somewhat nonhuman, and the choice of words is cryptic. The poem contains words such as "flodeth" and "existeth," with endings derived from archaic English, and words like "ichor," "yore," and "occult" that evoke a mythical and mystical sphere. These choices make the tick's language strange and its creaturely self inaccessible to the reader. The tick acquires an ancient and distinctive character (while the human cultural history of the abovementioned words reminds us that even what is "wild" cannot be expressed by us except through human words and connotations). The result is an insight that the tick cannot be exhausted by the reader; we can share only certain aspects, limited as we are by our species-specific senses, our species-specific language, and our limited lifeworlds.

CLOSING WORDS

The reading approaches I have proposed in this chapter can be implemented separately or combined for the richest possible results. The zoopoetic reading is especially appropriate to a poem like Murray's. All the same, such an investigation of how the presence of animals affects the literary language (rhythm, sensuality, perspective, etc.) can also be valuable as part of a metonymically oriented reading. In the analysis of Ivar Lo-Johansson's depictions of farm labor in my book *Zooësis*, I paid particular attention to how the author sometimes would zoom in on the working animal's body and describe the marks left by the whip on the animal's skin in such close detail that the narrative almost would come to a halt. I interpreted these aesthetic choices as signs of a *symphysic* empathy with the animal's vulnerability, physical expressions, and existence in time, and thus as a zoopoetic reinforcement of the text's metonymic qualities.

Similarly, the ambition of the metonymic reading, to highlight and examine mutual relationships rather than cement accustomed power dynamics, could shed light on important aspects of Murray's tick poem. It is interesting, for example, that the discourse we humans typically apply in relation to tick bites—centering on the threat of virus contamination and disease—is entirely absent in the poem. This threat strongly shapes our real-life relationship with ticks and is crucial for the fate of the animal if a human host spots it.

A metonymic reflection could observe that the poem's affinity with the tick consciously negates the notion of disease transmission as the given framework for the human-tick relationship. By being loyal to the tick's own drives and lifeworld, the poem reinterprets this hated and, in the general sense, "uncharismatic" (Lorimer 2006) animal. The poem portrays the tick as a pleasurable subject in its own right, thereby enabling an idea of relationality, where the host, animal or human, is (indirectly) offered the role of a life-giver rather than a vengeful victim. The poem seems to want to renew the readers' relationships with the small arachnid and with their own position as fellow beings.

Metonymic and zoopoetic reading approaches can complement each other—and certainly, there are several other productive avenues to explore. The current field of literary animal studies is broad and diverse, and methods move across disciplinary boundaries. Many of the narratological, scalar, and site-related methods described in other parts of this volume also apply to readings focused on the domain of literary animals. The toolbox has neither sides nor a bottom.

NOTES

1. In this chapter, the term "animal studies" is used as an umbrella term to encompass various subfields that are sometimes distinguished as human-animal studies, critical animal studies, animalities studies, multi-species studies, and others. For taxonomic discussions, see for instance Lundblad (2017: 1–21). The dichotomy of animal/human and the term "animal" for nonhuman beings are used in this article with a critical awareness that humans themselves are also animals. The grouping of such diverse creatures as ticks and cows into a category separate from humans can be seen as anthropocentric. However, I argue that the dichotomy of human/animal has strategic-political relevance in a context where human oppression of other species is being addressed.

2. A focus on the literary experiment as a space for exploring animality is also found in later artistic and philosophical movements, including in contemporary philosophers such as Jacques Derrida and Cora Diamond (Derrida 2002, 377; Diamond 2003).

3. Philip Armstrong (2008) explores the literary expressions of animality and observes that the idea of human animality and close kinship with animals—which Armstrong refers to as therio-primitivism—is depicted as stigmatizing and negative by certain authors (e.g., Wells, Sinclair, Marx, and Engels, among others), while the same proximity is described as something positive and empowering by other authors (e.g., D. H. Lawrence and Hemingway, among others) (134). I argue that the valuation of human animality is strongly connected to attitudes about animals more generally and, thus, to ethical questions concerning animals.

4. Regarding metaphor/metonymy in the context of animal studies, see also Baker (1993), noted by Lönngren. Baker, who primarily focuses on visual representations, argues that the choice between metaphor and metonymy can be linked to questions of power and valuation. According to Baker, animal metaphors are often employed to create distance and emphasize negative otherness, such as when a specific individual or group is referred to or visually depicted as apes, donkeys, or pigs. On the other hand, Baker explains metonymic relationships as highlighting and embracing similarity in the relationship (Baker 1993, 108–109).

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Chapter 9

Co-researching Literature Conversations

Martin Hellström

The co-researching literature conversation is a method intended to involve readers in research on the understanding of literature. I have previously tested the method in studies on ecocriticism (Hellström 2020a), and here I want to show how the method—reading together and talking about literature with readers—provides an understanding of how literature can convey knowledge and generate environmental awareness. Here I show how reading and talking with a group of children can be undertaken, based on the conversation model that I have worked with for about ten years that was developed by author and literacy promoter Aidan Chambers (1985). In my initial phase, Mary Kellett's studies on ways of "empowering children and young people as researchers" were important, since children participate in her research, asking questions and attempting to answer them; children are thus not objects of study but co-researchers (Kellett et al. 2004; 2011). Texts by Peter Hunt (1991) and Perry Nodelman (1992) emphasize the need to give children a place in literature studies and are therefore also important for the choice of method. Support for involving children in research can also be seen in the UN Convention on the Rights of the Child, in which Article 12 emphasizes children's right to be heard for issues that affect them. This applies both to vital climate issues and to the things important for a good life. Children are given the opportunity to express their views on these issues through the co-researching literature conversation.

PREPARING FOR THE CONVERSATION

The article is based on a conversation with three children ages nine and ten, previously presented in the Swedish edited volume *Ekokritiska metoder* (*Ecocritical Methods*, Hellström 2022b). We talk about three picture books on environmental themes: Linda Bondestam's *My Life at the Bottom: The Story of a Lonesome Axolotl* (2022), Julia Hansson's *Billie and Bean at the Beach* (2023), and Emma AdBåge's *Naturen* (2020); *Naturen* is not translated into English but is available in French as *La Nature* (2022). The books, not the children, constitute the empirical data. The children participate as interlocutors and co-researchers. The best results are obtained with a group of children who know each other and are not contacted through the school, since the involvement of a teacher can give children the feeling that the conversation is part of schoolwork and that their performance will be assessed. The children taking part know each other through a theater group that was asked to assist. When I asked if they were interested, I did not use the word "interpretation"; instead, I asked whether they would like to express their "thoughts" and "opinions" about three picture books, and I told them that their views would be presented in a scholarly article. Three children were interested and participated in the reading and conversation. The parents were informed, and the children were guaranteed anonymity and assured that the conversation would not have a harmful impact or reveal anything considered sensitive information according to the rules of the Swedish ethical review authority. For those who work with the method, it is important to be updated about their country's regulations and always bear in mind that an adult is responsible for ensuring that the participating children feel safe and develop in a positive way as a result of the process.

One also needs to bear in mind that the co-researchers do not represent anyone but themselves, just as one researcher does not represent all literary scholars. Therefore, it is not necessary to strive to achieve a group that reflects different parts of society according to criteria such as social background or ethnicity. The child's special competence, which is neither lesser nor greater than that of the adult but merely different, is shared by all children from different groups in society, according to Mary Kellett (2011).

THE DIFFERENCE BETWEEN PREMISES AND AIMS

The aim of the co-researching literature conversation is not to criticize previous interpretations by adult scholars of literature. When interpretations are juxtaposed, interesting differences emerge, which teach us about the work

and the reader's understanding. Here I have chosen texts that I have written about earlier, to clarify the advantages of the method. I have encountered the works of Bondestam and Hansson in my work with the August Prize, and I met AdBåge's work as a reviewer (Hellström 2020b). I can therefore see how the children's understanding deepens the picture of my interpretation, of how AdBåge addresses the reader, how Bondestam presents a sea filled with rubbish and how Hansson portrays an idyllic beach.

However, starting from this premise does not lead to any question that the co-researchers can be confronted with. The premise is instead what determines whether a co-researching literature conversation can be fruitful in giving a better understanding of the works, or if another method would be more suitable. In a conversation about two plays published in an edited volume about didactic perspectives on sustainability themes in children's and young adult literature (Löwe and Nilsson Skåve 2020), the idea was to see how the theme appears and how it can be portrayed on stage, and those who had the answers to this were young people who themselves play theater (Hellström 2020a). The question put to the co-researchers, on the other hand, must be open and capable of being answered in many ways, and it must not be a leading question. To start by presenting the premise to the co-researchers would be to ask leading questions, in a way that guides the co-researchers' interpretation. In Chambers's method, the conversation has three phases. In the first, you determine what type of story has been read together by focusing on the plot and the characters, and it becomes clear which parts have been unclear and where questions have arisen in the reader's mind. These questions are explored in the second phase, which consists of asking questions of the text and ascertaining its theme. In the third phase, you summarize the work and connect it to other works or to personal experiences. The final part involves making connections (Chambers 1985). In the dialogue about the plays, it turned out that the young people in the first phase saw a sequence of events that was not possible to act convincingly. The premise thus failed, and the conversation never moved to how the texts can be brought to life on stage, instead discussing the young people's need to consider these questions in other school subjects (Hellström 2020a).

The premise for the present conversation is that I want to know how the recipient, the reader, is addressed in the works, and whether the texts encourage us to act in any particular way. In keeping with Chambers's method, however, I do not steer the interpretation toward this but instead keep the conversation open. The co-researchers may have a different focus, and then the question becomes different. The article about the play did not give any answer as to how environmental problems are presented, but it showed how the texts relate to actual climate protests and how literature must contribute one way of representing the problem, while the school's nature subjects

contribute another (Hellström 2020a). This is what makes the co-researching literature conversation exciting. You never know where it will end and what questions you will receive answers to.

HOW THE CONVERSATION TOOK PLACE

Our reading took place on one occasion, in two sessions with a refreshment break in between. Comments arose continuously, and the co-researchers began to explore how the works are connected even before I asked any questions about this. It was clear that the co-researchers adopted different roles in the conversation. One asked questions, one gave many answers, and the third provided thoughtful interpretations. The conversation was recorded, and when I listened to it the first time, one voice seemed dominant, but on a second listen I could hear how the others participated and played an important part by asking follow-up questions and suggesting explanations. It is clear that the method does not emphasize the importance of all participants by distributing the speaking time equally; their different ways of reflecting on the text require different amounts of space. It is also clear in projects that run over a long time, as in my work with Maria Gripe's works, that this changes over time and that the children become aware of what kind of statements can be used directly in the text that is the ultimate goal of the conversation (Hellström 2022a). The method provides many opportunities for participation, as older children and adolescents can transcribe, summarize and sometimes participate as co-authors. This did not happen here as the participants are younger.

In contexts that do not focus on methods but on interpretation, this would not have been presented in such detail. The description of the children's activity threatens to shift the focus from the works to the readers and turn the co-researchers into objects. In this article, however, which seeks to inspire others to try the method, the practical aspects should be demonstrated. In this connection it is important to say that we took a break before the last book, that we drank juice and ate buns and that the children played on the swings for a while before they were ready to continue. It is important to have sufficient time and not to force the children to work when they are busy with other things.

THE ANALYSIS

We begin with Julia Hansson's *Billie and Bean at the Beach*. First, we sort out which is the name of the child and which the name of the dog, and the

difference between common jellyfish and stinging jellyfish. They sting Billie in the sea, we note, as she dives for a shining object on the bottom.

"It's about a child who goes to the beach with her dog and her mother and the mother wants the child to bathe, and it's cold, and then she gets stung by a jellyfish." The introduction is summed up by one of the children, and another continues: "Then her mother comforted her and then she got a sticking plaster and then the dog found a diving mask that Billie put on and then went down into the water and was gone for a really long time and then she saw something gleaming and she took it in her hand and then when they went home she had her very own secret with her." The co-researchers long for the beach. They find that the illustrations make them feel how the sun and jellyfish burn and sting them, but they still want to go there. I ask them what the book is about, and they describe the sequence of events for me: the child comes to the beach, does not want to bathe but ends up bathing anyway and gets stung, but she also finds the treasure underwater. The sequence of events is more important than the feeling.

The second book we read is Emma AdBåge's *Naturen*. "Just because it causes a bit of a mess, you don't have to cut down the tree," someone says early in the conversation, commenting on the way the tree is felled because it spreads its leaves on cars and gardens. The criticism continues: "That's so stupid, they wanted snow," says one co-researcher when the snowplows arrive. "In a way they are destroying nature when they cut down a tree and shovel away all the snow." The theme of the story becomes clear: "Nature is beautiful here," says one of the children as spring is portrayed through the planting in the village. "But later they won't want it like this," is the prediction, and so it continues when the village decides to pave the ground in order to stifle the weeds. We remember the felling of the tree when the inhabitants vainly seek shade and get into their cars with the air conditioning turned on. We discuss how this creates exhaust fumes and how silly and stupid the people are. "It's your own fault!" they say to the characters in the text.

The book is about behaving badly toward nature, "and you shouldn't do like that." "They are trying to change nature, they want it better, but they just make it worse. They want it as they have planned, but it doesn't turn out that way." "They just destroy, cut down trees and say 'I want summer' but when it's summer they cover it all with asphalt." "And then they get into their cars and there's exhaust fumes and they don't care, 'it's just, what does it matter, it's just exhaust fumes.'"

AdBåge's book is perceived as a "mixture of fantasy and reality. It can happen, but it is not very often that it is a small village that does like this; you don't normally have villages that are so small; this is more like a city. In real life you maybe go to the lake or the sea to swim or sit under a parasol; you don't cut down trees just because leaves are a nuisance." In the

co-researchers' interpretation it is clear that the characters act wrongly and that it is easy to predict what the consequences will be. It is also clear that the village is a symbol of something bigger, that it does not seem like a real village but more like a city. At the same time, the actions are ones that people cannot do by themselves—cutting down a tree or paving a green space.

Through the analysis, and because the co-researchers pretend that they are the tree, they appear wiser than the people in the book. The felling of the tree, the asphalting and the creation of exhaust fumes are not regarded as a symbol of human environmental impact in general but as decisions taken by individuals.

Linda Bondestam's *The Story of a Lonesome Axolotl,* on the other hand, describes environmental degradation in a broader perspective. Early in the story we read about rubbish with visible trademarks floating on the surface of the sea. The axolotl, a kind of salamander, moves on the bottom, and we search for it with our eyes. But tin cans and other rubbish are just as much in focus, and we talk about which brands seem invented and which we recognize as real. They forge links between the reader's everyday life and the animals who use the tins as desks in the aquatic animals' school. Mobile phones, billiard balls, keys, rings and other items are visible on the bottom. In one spread we can see the sky burning: "It gets so hot on earth that it catches fire, because of climate change," say the co-researchers, comparing Bondestam's book with the story of Noah's ark. They sum up: "It's about a rare axolotl that lived in a lake, but the people were stupid and threw rubbish into the lake and treated it badly. Then God thought they were bad and caused a flood to come and wash away all the people and this left a paradise for the axolotls." Although the theme is dark, the story of the axolotl has a happy ending. As a reader one can view it as a success that the humans are washed away to make room for newborn axolotls.

A COMPARISON OF THE WORKS AND MY PREVIOUS INTERPRETATION

"These books are about nature and about being kind to it. Although not *this* book," says one co-researcher about Hansson's book. Another replies: "Yes, but not that you should be kind to nature. Here they bathe in nature." In that book, nature is attractive, and it is only together with the two other books that it is perceived as being about nature and humans' relationship to nature. Here we are shown life underwater, as in Bondestam, but without the rubbish. Excitement arises instead with the jellyfish and the shiny object that Billie finds.

The other works are challenging, especially Bondestam's: "From this one you understand that you have to be kind to nature or something will happen. I don't want the sea to be full of rubbish when I'm thirty or forty years old, if we throw away so much." Another co-researcher continues: "I try to be as small as possible, as in this [Bondestam's] book." One might assume that this is a commentary on AdBåge's book, which clearly depicts human actions. But since the felling of a single tree and the asphalting of some gardens are not perceived as an image of human actions in general, it does not prompt readers to think about their own actions; rather it makes them see what happens when people do not think about the consequences of their choices. The village symbolizes a larger community, but the people themselves do not represent us all.

In Bondestam's book we recognize the rubbish, which consist of materials we too throw away, whereas we have no experience of cutting down trees. At the same time, there are pictures of the classic natural disasters that we know all about: forest fires and floods. The explicit images, the disasters and the rubbish we recognize, make our actions the focal point.

In my review of AdBåge's book I expressed doubts about the impersonal address. Who is telling the story and who is the storyteller talking to? It is difficult to know, and I thought that it might lead to weak engagement with the story, so that it fails to influence us to change our behavior. But the conversation shows that it is not the uncertainty about who is the "we" in the story that leads us not to see the story as a criticism of our own behavior, but rather the fact that the group of people referred to in the story as "we" are so stupid that one cannot identify with them. Their actions are exceedingly clear. Even if we do behave inadequately, we are not as stupid as the people in AdBåge's story.

The nomination of Julia Hansson's book for the August Prize pointed out that the light in the images was significant, and Bondestam's story was perceived as humorous with its recognizable packaging. But in the conversation, it was the plot of Julia Hansson's story that was central, and it stands out as crucial for experiencing the beach as attractive and worth protecting. In Bondestam's book it is not the humor that is emphasised in the co-researchers' analysis; it is the objects that create a commitment to living in a more environment-friendly way, even if there is no such urging in the text (nor did I, as the leader of the conversation, suggest this).

The co-researching literature conversation combined with the ecocritical method opens an understanding of how literature can engender reflections on how we ourselves act, and what are our hopes and fears for the future. This is especially evident in the analysis of the story of the axolotl: "I don't want the sea to be full of rubbish when I'm thirty or forty years old, if we throw away so much."

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Chapter 10

Empirical Ecocriticism

Evaluating the Influence of Environmental Literature

Woyciech Małecki and Matthew Schneider-Mayerson

Since its inception, ecocriticism has assumed that the texts it studies have a significant impact on readers and the world at large. Whatever their position in print, most ecocritics work from the premise and teach their students that reading and studying environmentally engaged texts is a valuable and important enterprise, not only because this work is interesting and gratifying but also because these texts *matter*—socially, culturally, politically. This is especially the case in this era of accelerating environmental crises, when ecocriticism's long-standing desire to transform culture is unambiguously aligned with planetary imperatives.

The problem with such convictions about the power of environmental literature is that they have been based on speculations and anecdotal data. Take, for example, a familiar source of anecdotal extrapolation: classroom observations. We have all seen with our own eyes that some texts move our students, while others do not. What more evidence do we need? A lot, it turns out. The first problem with this common generalization is that the students most ecocritics teach are far from a representative sample of readers, being (one suspects) younger, more interested in environmental issues, and more educated than the average reader. Second, classroom reading experiences occur within the context of a sustained and directed learning experience, supplemented by lectures, structured conversations, and/or writing assignments. This makes it impossible to know if it was the text that influenced one's students, or the text combined with reading prompts, lectures, and directed discussion. Third,

as instructors we are far from objective appraisers, being susceptible (like all humans) to cognitive biases that unconsciously shape our interpretation of the available "data," such as the tenor of classroom discussion.

This is not to say that ecocritics shouldn't have hunches about which texts are the most potent, in the classroom and beyond. We should, we do, and we always will. But to substantiate, reject, or complicate our hunches we need empirical evidence.

We need empirical ecocriticism—an empirically grounded, interdisciplinary approach to environmental narrative (Schneider-Mayerson et al. 2023). For its evidence, empirical ecocriticism employs the methodologies of the social sciences. To learn, for example, whether climate fiction influences the attitudes and behaviors of its readers (Schneider-Mayerson 2018), or whether narrative empathy can make readers care about the plight of nonhuman species (Małecki, Pawłowski, and Sorokowski 2016), an empirical ecocritic might choose to conduct interviews, a focus group study, or a controlled experiment. They might use qualitative or quantitative methods or even combine them. These established empirical methods are not perfect—no method is—but they are the most reliable methods to examine the real-world impact of any stimulus, and they help us avoid the common errors described above. This chapter introduces readers to the methodology for one important form of empirical ecocriticism, experimentation, and describes how it might be useful for ecocritics and environmental humanists.

According to many ecocritics (Ammons 2010; Buell 2001; Rueckert 1978), reading environmental literature can affect people's views on the environment and increase their awareness of issues such as climate change and species extinction. And it seems obvious that readers of this kind of literature frequently exhibit higher than average levels of environmental concern. However, what if their heightened concerns were actually what sparked their interest in environmental literature rather than the other way around? Maybe the widespread belief that environmental literature has the ability to influence public opinion is just wishful thinking. How could we find out?

Or consider the discussions about so-called "bad environmentalism," which have been sparked by the notion that "public negativity toward activism" may be influenced by ecological campaigns' typical sensibility, such as "their sentimentality, their reverence, their serious fear-mongering" (Seymour 2018, 5). Would a different sensibility, more ironic or irreverent, be more effective? Maybe it would. But what if there are other, completely unrelated reasons for the negative perception of activism? Could it be, for example, that people are generally resistant to altering their beliefs and habits—exactly what environmental activists want them to do? What happens if irony or irreverence prove to be ineffective—or even counterproductive?

These are but a handful of ecocritical questions about complex causal regularities. And as our field is gradually taking on a more activist stance and becoming more interested in how cultural phenomena contribute to environmental crises and how they might help address them, the number of such questions is likely to increase. Experimental approaches can significantly contribute to answering them since these methods were designed precisely for unraveling complex causal matrices (Ruxton and Colegrave 2011; Webster and Sell 2007).

Among the various types of experimental designs, randomized controlled experiments are the most paradigmatic (Webster and Sell 2007, 53–80). And clinical trials of drugs are the most paradigmatic type of randomized controlled study. Before a drug reaches the pharmacy, scientists must be as certain as possible about its therapeutic effects, which means ruling out the possibility that any reported effects are the result of confounding variables. So, for example, it would not be sufficient to simply administer a medication for COVID-19 to a group of infected and symptomatic individuals and track its effects to determine whether it aids in recovery from the illness. This is because we would be unable to determine whether the improvements in those patients were caused by the medication, the immune system acting on its own, or some other cause. Furthermore, it would not even be sufficient to compare their medication-related reactions with the symptoms of *any* given group of individuals not taking the medication. This is because we would be unable to rule out the possibility that the observed difference in symptoms is caused by the composition of the groups. Individuals in one of them may have been less ill in the first place, or they may have had fewer underlying problems that we were not aware of. For this reason, while performing clinical trials, researchers assign participants randomly to both the experimental and control groups (Cohen 2013, 200; Shaughnessy, Zechmeister, and Zechmeister 2012, 194–96).

In addition to medical research, a wide range of disciplines use controlled randomized experiments, including psychology, education, philosophy, and literary studies (Webster and Sell 2007; Knobe and Nichols 2008; Ruxton and Colegrave 2011; Hakemulder 2000). They have also been employed to shed light on topics that are directly relevant to the environmental humanities. For example, numerous academics, campaigners, and authors, such as Thomas Hardy and Leo Tolstoy, have claimed that stories might change people's perceptions of nonhuman animals (e.g., Keen 2011). These claims have been supported by cases such as Simon Wincer's family drama *Free Willy* (1993), which resulted in the real-life liberation of the orca that starred in the film (Simon et al. 2009), and Anna Sewell's *Black Beauty* (1877), which inspired anticruelty legislation that significantly improved the life of British horses in the last quarter of the nineteenth century (Nyman 2016; Sewell [1877]

2012; Pearson 2011, 43–44). However, it is prima facie unclear whether these cases are due to animal narratives' general tendency to influence attitudes and behavior, or whether they are mere anomalies in which the effects of the narratives are due to a set of rare external circumstances. An empirical experimental investigation analogous to the previously mentioned clinical trials would be required to address this question. This is precisely what was done in an early empirical ecocritical study on animal narratives conducted by a team of specialists in social psychology, biological anthropology, and literary studies, including one of the authors of this chapter (Małecki, Sorokowski et al. 2019).

We divided participants into two groups at random: an experimental group and a control group, just like in clinical trials. Unlike the control group, our experimental group read an animal narrative. It was a story about an animal that suffered at the hands of humans because it belonged to a specific nonhuman species, and the story had a narrative structure similar to narratives such as *Black Beauty,* which have been said to have a positive influence on attitudes about animals. Just as the plight of the animal protagonist in *Black Beauty* was representative of common practices that exploited horses in the UK during the nineteenth century, the fate of the protagonist of our experimental story exemplified a variety of exploitative practices that are still prevalent in various parts of the world. The simian protagonist, Clotho, was abducted from the jungle, separated from her family, sold to animal traders, and transported to Europe, where she endured a horrendous ordeal, including being subjected to cruel circus training and agonizing pseudo-scientific experiments. The story was taken from a bestselling Polish crime novel, *The Master of Numbers* by Marek Krajewski (2014) and is just as visceral and compelling as the animal stories that are said to have had a significant social impact.

We designed our study to prevent the so-called placebo effect, as is done in the majority of clinical trials. The control group in clinical trials is usually given a substance that looks the same as the substance given to the experimental group but does not contain the active ingredient (Cohen 2013, 199–200), because there is evidence that the mere belief that one has taken a drug can have a therapeutic effect. Analogously, in our research, we aimed to confirm that the observed impacts on participants' attitudes were indeed caused by the experimental narrative, not by the fact that they read a story. Therefore, we gave the control group members a "narrative placebo" to read. This was a story that had nothing to do with subjects related to our research (nonhuman animals, animal welfare, etc.), but was as similar to the experimental story as possible: written in the same genre and style and depicting events that happened in the same historical era and cultural setting. This was

accomplished by selecting an appropriate passage from the same novel as the experimental story.

Having adopted these measures, we could then assess how the stories affected both groups' attitudes. We accomplished this using a scale—a collection of questionnaire items that are intended to quantify changes across a particular psychological dimension and possess the qualities required of instruments measuring psychological phenomena, including consistency and validity (Maio and Haddock 2012, 20–22). Our scale was designed to measure attitudes about animals and comprised seven items, including, "Apes should be granted rights similar to human rights," "Human needs should always come before the needs of animals," and "The low costs of food production do not justify maintaining animals under poor conditions." We named it the Attitudes Toward Animal Welfare scale, or ATAW (Małecki, Pawłowski, and Sorokowski 2016).

The ATAW scale is similar to other so-called Likert scales in that it accepts only one response type—selecting a number within a certain range that indicates how much you agree or disagree with a statement (Harris 2003, 52). These numbers, ranging from one to seven in this case, represented responses that ranged from "I completely disagree" to "I completely agree." Participant's answers to all seven items were combined, producing a score that quantitatively expressed their attitudes about animals. This allowed us to compare the average results from different groups. As is common in experimental social sciences, we subjected our results to so-called null hypothesis significance testing to be able to determine whether the animal narrative had an impact on our participants (Cohen 2013). This type of testing determines the probability that a relationship observed in one's sample—for example, that participants who read an animal story scored higher on attitudes toward animal welfare than those who read a control story—is due to chance or error rather than any relationship outside of the experimental conditions (Shaughnessy, Zechmeister, and Zechmeister 2012, 385–86). It is generally accepted that if the probability is less than 5%, or "$p < 0.05$," where p stands for statistical significance, the result is statistically significant (Lindgren 1993, 303).

Our findings proved to be statistically significant, and we subsequently replicated them in a series of studies with hundreds of participants and several animal narratives from different genres and parts of the world, such as the well-known scene of horse abuse from Dostoyevsky's *Crime and Punishment* and Oriana Fallaci's magazine article "The Dead Body and the Living Brain," which focuses on the controversial head transplant experiments carried out by Dr. Robert White (Dostoevsky [1866] 1993; Fallaci [1967] 2010; Małecki, Sorokowski et al. 2019). The results of these studies indicate that the widespread belief in the attitudinal impact of animal narratives is not just wishful

thinking but reflects a real social phenomenon. It is safe to say, then, that animal welfare organizations, advocates, and activists who use narratives to try to win support for their goals are not wasting their time, money, or energy.

Controlled, randomized experiments are being conducted to address other topics likely to be of interest to ecocritics. For example, literary works of fiction about climate change are becoming more common and more popular among critics and readers, and many authors, critics, and ecocritics have speculated about the impact of climate fiction on readers (Schneider-Mayerson 2017). One of the authors partnered with five environmental social scientists from the Yale Program on Climate Change Communication to test these claims, via an experiment with almost two thousand participants, some of whom read one of two short stories about climate change, and some of whom read a control story ("Good People" by David Foster Wallace). The participants were then tested again a month later, to see if any changes lasted. They found that whether the stimulus was a speculative dystopian story ("The Tamarisk Hunter" by Paolo Bacigalupi) or a realist story exploring the psychological dynamics of climate change awareness and denial ("In-Flight Entertainment" by Helen Simpson), reading climate fiction had small but statistically significant positive effects on several important beliefs and attitudes about global warming—observed immediately after participants read the stories. While these effects diminished to statistical nonsignificance after a one-month interval, previous scholarship suggests that longer texts, such as novels, might be expected to have more significant and longer-lasting effects (Schneider-Mayerson et al. 2023).

Thus far we have been talking about the use of randomized controlled experiments to validate widely held opinions, but it should be noted that such studies are also helpful in shedding light on contentious subjects. Think about the debate on the moral impact of fiction compared to nonfiction, particularly in relation to stories that portray the suffering of a particular social group or animal species (Djikic, Oatley, and Moldoveanu 2013). While the animal stories described in this chapter are all fictional, there are many nonfiction accounts of animal mistreatment and exploitation, in the form of TV programs, newspaper articles, and firsthand accounts. Would it not be more effective to focus on those instead? Since actual suffering tends to matter more than imagined pain, it seems reasonable to assume that fictional depictions of animal suffering would have less impact than nonfictional ones. It also seems reasonable to assume that fictional portrayals of animal suffering will have less of a moral effect on audiences because, generally speaking, our responses to such depictions are aesthetic rather than ethical, meaning that we are more interested in enjoying a moving story than contemplating its moral lessons (cf. Solomon 2004).

However, others contend that it is precisely this aesthetic framework that gives fiction an advantage over nonfiction, since fiction makes it easier for us to surrender to our compassionate feelings, which may result in a profound shift in morality (Oatley 2002, 42–44; Shusterman 2001). Some individuals may believe that real-life depictions of animal suffering would be overly graphic or ethically demanding, causing guilt or implying a need to intervene (Eitzen 2005). Maybe this explains why so many people decline to watch documentaries that depict animal suffering and why certain animal rights groups routinely pay people to do so (e.g., Taylor 2016). Such responses could be countered by a fictional framing. Since many people seem to accept or even enjoy representations of intense suffering as long as they are framed as fictional—as evidenced by the fact that so many blockbuster films are extremely violent—one might be less likely to expect similar guilt or obligations from a story about the suffering of fictional characters. Then perhaps fiction, not nonfiction, is likely to be more effective.

A randomized controlled study was carried out by one of the authors (Małecki et al. 2019, 69–84) to examine this question. Two experimental groups and a control group made up our three groups. Individuals assigned to the control group read a narrative placebo, whereas those in the experimental groups read an animal story. In one of the experimental conditions, the animal story was prefaced with a note that it was a fictional text taken from a detective novel; in the other experimental condition, a note introduced the text as a factual account taken from a journalistic work. The text itself, which originated from the popular nonfiction book *Slaughterhouse: The Shocking Story of Greed, Neglect, and Inhumane Treatment inside the U.S. Meat Industry* (Eisnitz 2007), enabled both interpretations. It describes the author's conversation about the unlawful slaughter of horses with a federal prisoner, but it reads like detective fiction (Eisnitz 2007, 136). After participants in each of the three groups read their respective narratives, we asked them to complete the ATAW scale. We then statistically analyzed the collected data to determine which version of the text had the greatest impact, to provide experimental insight into the fiction vs. nonfiction question.

The outcome surprised us, though not because we believed one side of the argument to be correct, and it turned out not to be so. What they showed us was something we had not considered: our participants were impacted by the stimulus to the same extent, whether it was viewed as fact or fiction. Usually, when one finds a conclusion as counterintuitive as ours, one should consider that the result is due to an error or chance. However, it turned out that other experimental studies (Green and Brock 2000; Koopman 2015) demonstrated no difference in the effects of fiction vs. nonfiction on attitudes, including attitudes about individuals who are grieving or mentally ill. Thus, it appeared that we had stumbled upon a real psychological phenomenon; the only thing

left to determine was its cause. We ultimately concluded that it had to do with the highly emotional nature of the themes of the stories used in the research, including animal suffering, bereavement, and depression. Our hypothesis was that readers' reactions to such material in a work of fiction might override their conviction that the events depicted are not real. This is likely because the part of our brain that has a primary role in emotion processing (the limbic system) is considerably older than the part that has a primary role in processing propositional knowledge, such as whether a message is fictional (the prefrontal cortex). As such, the limbic system can readily override the influence of the prefrontal cortex (Panksepp 1998, 42–58). The mechanism underlying our findings would be comparable to what occurs when we become enthralled with the fortunes of our favorite TV character or fearful of zombies in a horror film, seemingly forgetting that neither the zombies—nor our favorite character—exists. Therefore, it may not matter whether an animal narrative is fictional if it engages readers emotionally.

Empirical research is necessary to understand the emotional influence of environmental narratives in the real world. Close reading and cognitive narratology can generate valuable hypotheses, but they cannot conclusively demonstrate how a random group of readers is likely to respond to a text or a group of texts. And while emotions are highly complicated, there are well-researched tools for assessing a wide range of emotions through experimentation. Perhaps the most common of these tools are questionnaires that employ self-reports. For example, questionnaire items were used in a study by Claudia Schneider and her team that contributed to the discussion on the effects of common environmental appeals by demonstrating that guilt-inducing environmental messages, including narrative texts, are less motivating than pride-inducing messages (Schneider et al. 2017). Questionnaires were also employed in a study investigating how the impact of narratives on attitudes about animals depends on empathy and sympathy. The study demonstrated that when we feel *with* an animal protagonist (empathize with it), this may cause us to feel *for* it (sympathize with it), and eventually adopt more caring attitudes toward the protagonist's species and even nonhuman animals in general (cf. Herman 2018; Weik von Mossner 2018). As we can see, experimental research can be used not only to study the effects of texts but also the mechanisms of those effects.

Experimental studies are not limited to examining how feelings and other mental processes are represented in surveys. Their reach extends well past the surface of conscious experience, all the way to its neurological foundations (Mauss and Robinson 2009). Neurological research, for example, has demonstrated that reading fiction enhances brain connectivity in surprising areas, such as the bilateral somatosensory cortex, which controls our sense of body (Berns et al. 2013). This has been explained as our brain mimicking

the feelings and physical experiences of the characters in a story (Freedberg and Gallese 2007). This phenomenon invites the question of whether stories with nonhuman protagonists use the same mechanism and, if so, whether exposure to such stories could retrain our neural pathways (cf. Weik von Mossner 2016).

CONCLUSION

This chapter has presented a short introduction to experimental methods in empirical ecocriticism—why it is important and how researchers go about doing it. Hopefully, it has given readers a taste of the kinds of questions that can be asked, answered, and generated by this method. Of course, a great deal more might be said about experimental methods and about empirical ecocriticism in general. We have barely touched on qualitative methodologies, such as interviews, focus groups, and surveys, which use techniques that are equally illuminating and may be more familiar to many ecocritics. Another critical missing topic is the importance of doing empirical ecocriticism ethically. Since it requires working with human subjects, researchers must obtain approval from an Institutional Review Board before conducting their research.

Finally, we should note that empirical ecocriticism is rarely a solitary endeavor. Most ecocritics are humanists with limited background in empirical research employing social science methods. Does this mean that, lacking the necessary expertise, they cannot engage in the kind of research described in this chapter? Not necessarily. They might collaborate with social scientists capable of assisting with planning and executing studies and analyzing data. Many such researchers (in psychology, neuroscience, sociology, communication studies, and other fields) would be happy to work with ecocritics. These collaborations can be advantageous to multiple fields since they enable the environmental humanities to borrow ideas and methodologies from the social sciences and vice versa.

More importantly, they might also benefit the world beyond academia. As this chapter aims to show, combining environmental humanist and empirical ecocritical approaches allows us to better understand how cultural texts shape attitudes about the environment and nonhuman others, and how they might help us address ongoing environmental challenges, which is why ecocritics tend to be engaged in this work in the first place.

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Chapter 11

Overstories

Reading, Digital, Media, Ecologies

Per Israelson and Jesper Olsson

Today we live on a networked planet, marked by the ubiquitous presence of digital media. So, let us begin this chapter at a local site, on a distant farm in Iowa, where a chestnut tree was once planted. Each year for almost a century a photograph of the tree was taken by a person living and working at the farm, documenting the growth of the trunk, the bifurcation of the limbs, and the dappled development of the canopy of this specific being—and thus also making visible, through a kind of time lapse photography, a temporality not usually accessible to the human sensorium, or at least not often attended to: the time of trees.

The chestnut tree in Iowa is one of many protagonists, human and more-than-human, in Richard Powers' multidimensional novel *The Overstory* (2018), which sets the task of representing and revising our understanding of trees and woods, forms of existence that have during modernity, regularly, been reduced to raw matter and exploited as material goods that can feed the anthropocentric machinery of progress. Most notably, Powers inaugurates a series of travels in space and time and across different scales in order to problematize a strictly human perspective on the world and the planet, thus heeding the calls from environmental humanities scholars and critics such as Chakrabarty (2009), Clark (2015), and Morton (2013), who have underlined this challenge concerning scale for literary writing in the Anthropocene.

The trees (and peoples) in Powers' novel come forth as both individuals and collective communities, whether apprehended as woods or some kind of smaller units or, on the contrary, as something even larger, stretching out and creating relations on a global scale. In a fraught passage in the novel, the reader follows the botanist Patricia as she experiences how comprehensive

and complex the lives of trees are, how they have to be perceived as social beings that communicate with each other:

> The wounded trees send out alarms that other trees smell. Her maples are *signalling*. They are linked together in an airborne network, sharing an immune system across acres of woodland. These brainless, stationary trunks are protecting each other. (Powers 2018, 126)

Critic James Bridle has aptly discussed the networks that emerge in Powers' novel in terms of a "wood wide web," observing not only the *analogy* between natural communication systems and the ubiquitous digital networks of today but also offering a media archaeological reminder in pointing out how recent technological transformations and the Internet, especially, have made it possible to discern and understand aspects of nature that hitherto went unacknowledged (Bridle 2022, 80). The world wide web has calibrated our gaze for observations of the wood wide web. But the tables can be turned as well, as Bridle shows in his discussions of, for instance, organic analogue computers instantiated by slime molds and ensembles of crabs.

There are, accordingly, many convergences between digital media ecologies in the present and the ecosystems manifested in woods, mushrooms, ant colonies, bees, and so on. However, the perhaps most well-known, urgent, and very material entanglement between these two spheres, in the Anthropocene, is the cycle of extracted minerals, such as silicon and coltan, which form the material base of our digital devices and which return to earth—usually in the global South—as electronic waste (Parikka 2015).

These convergences between the digital and what we used to call nature, and how they have affected the writing and reading of literature, constitutes the topic of this essay. If literature has in many regards, not least during modernity, been the territory of individual human experience; if the narrative and lyrical *I's* have been central nodes in this long-standing endeavor; and if, as Amitav Ghosh (2016) has polemically claimed, the modern realist novel has been incapable of addressing and representing events beyond the individual and its satellites (couple, family, and other small ensembles in time and space), then how can literature operate in relevant ways today, in a global digital landscape and a planetary climate crisis? How can productive reading practices take shape in this situation?

As John Parham argues in a recent essay, "If the Anthropocene has engendered an inquisition into the value of literature and literary criticism, it also offers an opportunity to invigorate both" (Parham 2021, 10). This is a keen observation, one that we hope to attend to. We intend to show how the entanglement of ecocriticism and media ecology can offer methodological inspiration and creative approaches to the writing and reading of literature that

in various ways confront the situation outlined above. It may give not only epistemic leverage to the practice of literary studies but in extension also offer perspectives on alternative ways of being and acting—ethically, politically, aesthetically—on a planet damaged by climate change and environmental crisis. This demands, as in Powers' novel, new stories and articulations of the human and its relation to the nonhuman, organic or not. As Sean Cubitt (2021, 56) has observed: "The utopian residue of the Anthropocene would then be not the sustainability of an already defined humanity but a political project: to become human in a different relation to natural and technical environments in rapid evolution."

In the following, we will first address more fully the above-mentioned convergence between digital and natural—i.e., the emergence of *media* or *techno*-ecologies—and give a brief example of how this has been explored in literature today. Second, we will discuss theoretical aspects of this situation and methodological implications for the writing and reading of literary work in this contemporary cultural and sociotechnical setting. Third, we will offer three concrete case studies of poetry, narrative fiction, and comics, before concluding the essay with some final remarks and further tasks for the future.

Important for our readings and methodological discussions will be the idea of an "algorithmic criticism" (cf. Ramsay 2012) and the cybernetic concept of "structural coupling" (Maturana and Varela 1980) as a way of performing "scale critique" (cf. Woods 2014) and of establishing new modes of reading that take into account the imbrications of technology and nature, as an aspect of both the production and the reception of literature today. Structural coupling is the process by which information processing and self-referential systems—*autopoietic* systems—are organized in relation to other systems and environments. From a cybernetic point of view, the literary text is an emergent structure composed of any number of subsystems, such as narrative units, rhetorical figures, or material properties. As such, the literary text operates as an ecosystem.

Accordingly, when concepts such as *environment* and *ecology* are used throughout the text, they refer to ontologically mixed beings and settings, adhering to the observations of Timothy Morton (2007), Erich Hörl (2017), and others who have contributed to a "denaturalization" of these notions, entailing what Hörl has described as a "general ecologisation of being and thinking" (Hörl 2017, 3). This forms the crucial theoretic background to what we will outline here as a "media ecological" approach and method of reading, which reconfigures literary systems and subsystems into new structural couplings with the goal of generating new, emergent organizational structures, highlighting potential patterns of creativity. Media ecology can thus at heart be considered a compositional and experimental method, manipulating the medium of writing and creating new sense-making relations.

ENTANGLEMENTS OF NATURE AND MEDIA

In one fundamental way, the situation for writing and reading in the Anthropocene is not new. Literature, the name of which stems from written letters (from Latin *litera*/*littera*), has always depended upon mediation between something absent and something present, between distances in space and time, and between perspectives and scales, for example, as in many a realist novel, finding ways of narrating and mediating the relationships between individual, family, and society. But the challenge for such mediations is, of course, drastically different when we move from human life as the default position to the times, spaces, and scales of woods, water, or geological epochs.

Of course, these mediations have never been transparent or immediate. They always rely on the instruments and media used—as Nietzsche once remarked in the case of writing: "Our writing tools are also working on our thoughts" (quoted in Kittler 1999, 200). Similarly, literature is no passive registration of an external world but contributes to shaping our understandings of a planet in swift transformation, together with a host of other mediators and material agencies within and outside us. These form what might be designated as *assemblages* of materials and agencies that include everything from microscopic bacteria and minerals to macroscopic events such as the weather, from poetry books and scientific theories to kitchen sinks and computers. As Derek Woods underlines in his essay "Scale Critique for the Anthropocene":

> the subject of the Anthropocene is not an individual or species-based "intelligence" that, without mutation, projects across scales to shape the matter of the Earth . . . scale critique shows that the subject of the Anthropocene is not the human species but modern terraforming assemblages. . . . What is necessary to accommodate scale variance is a horizontal, assemblage theory of the relations among humans, nonhuman species, and technics rather than a vertical, phylogenetic account that traces all causal chains back to the embodied intelligence of *Homo sapiens*. (Woods 2014, 138)

An important background to this kind of thinking is the media theory and philosophy that emerged during the 1960s, for example in the work of French philosopher Gilbert Simondon, who analyzed "the technical object" through a relational lens, stressing the interconnections between humans and technologies (Simondon [1958] 2016). Furthermore, we find here the more anthropocentric theory of Marshall McLuhan, who investigated media as prosthetic devices, as "extensions of man" (McLuhan 1964). A related standpoint was taken by scholars linked to the field of cybernetics in the postwar decades, perhaps most notably by anthropologist Gregory Bateson (1972),

who approached ecologies as imbrications of humans, natural environments, and technological inventions such as the computer.

With Bateson, one could observe a displacement from the subject–object binary as an optic of understanding reality to a focus on relations and assemblages, a shift that has been further developed with thinkers such as Félix Guattari, who stressed the entanglement of mind, society, and natural environment in his *Three Ecologies* (1989), to more recent studies during the 2000s by theorists such as Matthew Fuller (2005) and N. Katherine Hayles (2017). Hayles has, consequently, formulated a concept of "cognitive" assemblages that includes humans as well as other investigative bio-organic agencies and technical systems in order to analyze knowledge work, including writing and reading, across different temporalities and scales; not least she has, in relation to this, explored how digital media in the present have affected the conditions and workings of literature, from printed books to electronic literature.

It is also in this intermedial zone between print and screen where the most telling examples of the process of merging digital and natural ecologies are found. For instance, in Canadian artist and writer J. R. Carpenter's poetical investigation *The Gathering Cloud* (2017), a potent metaphor of data storage as well as a natural phenomenon with a long and dwindling cultural history are intertwined through text and image in a book as well as on the computer screen (https://luckysoap.com/thegatheringcloud/). On the one hand, Carpenter sheds light on the nebulous and seemingly immaterial data cloud of today by bringing up poetry, tracts, and scientific investigations of weather and clouds from the past—offering, thus, a *material* media history of the cloud—and, on the other hand, this history is represented and performed by the help of current digital devices, including cloud computing.

Even though there are risks with conflating technical media and nature—the naturalizing of technology might easily conceal the actual embodied and cultural work—it is also necessary to investigate how the concept and understanding of nature to a certain extent depends on the kind of mediations addressed above. Everything from microscopes to sonar technologies to sensors have shaped this notion of "nature"; conversely, nature is very much present in our digital tools, not least as minerals excavated from the depths of earth (Parikka 2015). Thus, it is decisive to both acknowledge and analyze this entanglement and, in this specific context, how it operates in the writing, distribution, and reading of literary works.

READING AND WRITING IN THE TECHNO-ECOLOGICAL PRESENT

That reading has become a contested practice and concept during the last decades has hardly escaped anyone. In the 1990s, in the wake of internet, email, and mobile digital devices, a Janus-faced debate began. On the one hand, elegiacal voices declared the imminent death of books and reading; on the other there were curious interrogations of hypertext novels and cyber poetry. This polarization continued to a certain extent into the new millennium and the problems of digital reading—diminishing concentration, short-term memory, and self-reflection—have been regularly raised (Carr 2010).

However, the discussion has also become more nuanced and differentiated. For example, Hayles has outlined the differences between *close reading*, as it evolved in literary studies during the twentieth century—a focused, detailed, and scrutinizing reading of texts, famously codified by the new critics—and *hyper reading*, associated with operations such as skimming, scanning, hyperlinking, parsing, and juxtaposing (Hayles 2012, 61), operations that might enhance other capacities such as the navigation in information-dense contexts. Hayles adds to this duo computer-assisted modes of reading and analysis such as "distant reading" (Moretti 2013) or "machine reading" of larger corpora of digitized texts.

The use of digital tools finds its broader background in digital humanities (DH), which has a history that leads back more than half a century. However, in the 2000s, DH methodologies have multiplied and become more disseminated due to the increased capacity of hardware, software, and, not least, the enormous accumulation of information ("big data"). Stéfan Sinclair and Stephanie Posthumus outlines in their article "Digital? Environmental Humanities" (2017) some of the intersections between DH and environmental humanities (EH), pointing to the technological mediations of nature, the environmental impact of digital technologies, the affordances of digital media when it comes to activating and reaching broader publics on environmental issues, and, finally, to the use of digital technology in the humanities.

While their first two points have been addressed above, the third might, in relation to literature, be exemplified by a project such as the Norwegian *Klimaaksjon* (Climate Action) (https://forfatternesklimaaksjon.no), which has gathered and distributed literary and artistic work (essays, poetry, prose, and art) about the environment and the climate crisis for almost ten years. This kind of initiative reach out to larger audiences—in this case primarily the Nordic countries—and may also function as an incentive to engage more directly in these urgent issues. The latter can be further accentuated by exploring interactive aspects of digital media (commentary fields and chat

forums, open interactive poetic works and gaming) and by encouraging collective and collaborative endeavors, an issue also highlighted by Sinclair and Posthumus.

Moreover, an engagement with digital media can strengthen various forms of multimodal and multisensorial work that take into account the material, embodied, and affective aspects of literature, all of which can be considered integral to the challenges that the Anthropocene and the climate crisis evoke. If science has generated loads of data and evidence of the latter, the question remains on how to imagine, represent, and make felt these changes in order to explore other ways of living and acting on the planet. Here literature and art, through their capacity of concretizing and engendering aesthetic experiences (*aisthesis*, pertaining to the senses), can create both cognitive and affective responses that go beyond what Timothy Morton has called the "information dump mode" (Morton, 2018).

The possibility of using combinations of text, sound, and images (moving or static) in digital media can multiply and further enhance this capacity and encourage ways of reading that, for instance, take into account the interplay between the different senses in our approach to climate change. Moreover, such explorations of the cybernetic assemblage of human and machine also can bring forth a reflection on how subjectivities are always co-composed and co-acted in the conjunction of multiple agencies, paving the way for a deconstruction of the human/nature and subject/object binaries and thus for a reconsideration of the relation between the human and more-than-human.

The latter ties into Sinclair and Posthumus' final point: using digital media as tools in reading. This can mean using quantitative methods on larger digitized corpora of texts, for example analyzing the use of concepts such as "nature" or "environment" in novels from a certain period, to discover and visualize patterns that can tell us something about how these phenomena have been imagined in literary work. An early example of this is "topic modelling" (Jockers, 2013), the search and extraction of word clusters or motifs that can be analyzed and represented by various visual models (graphs, maps, trees). During the last ten years, the field has expanded, and the methods have been refined in numerous ways (see, for instance, Piper 2018).

A more experimental way of using digital tools and digital conceptuality is the "algorithmic criticism" developed by Stephen Ramsay (2012), in which algorithms are used as productive constraints to discover new perspectives on literary texts. Ramsay suggests a method of reading that uses the operational aspects of digital communication as a means of creative interpretation that challenges the anthropocentric stance through collaboration and interaction with technology, that is, by exploring reading as the performance of a human-technical cognitive assemblage, to use Hayles' (2017) notion noted above. By applying executable programs to literary texts, algorithmic criticism can

generate new textual versions—Ramsay uses the term "deformations," following Jerome McGann and Lisa Samuels (Samuels and McGann 1999)—actualizing potentialities within the text and thereby stressing the complexity of the literary object.

A central point in Ramsay's argument is that texts always operate on two levels. On the one hand is the manifest text: the "what is." On the other hand is the text that instructs the writing of the text: the "how is." Any literary text is generated as *the emergent relation* between these two operations, encapsulating, in essence, an *ecological* process. Thus, on a theoretical level, Ramsay's algorithmic reading treats and manipulates language as an *emergent media system*, organized by systemic feedback. While this insight is far from new, it is one that has been forcibly emphasized by digitization and digital media. The operational processing of a dual script endemic to digital media can be extended, following Hörl's concept of general ecologization, to literary texts.

The media ecological method that we propose is intended to supplement Ramsay's algorithmic criticism and focuses the process of emergence and specifically how emergence is connected to the relation between systems and environments in a structural organization of an ecology. At the center of our method is the concept of structural coupling, presented by Humberto Maturana and Francisco Varela (Maturana and Varela 1980) as part of their cybernetic theory of autopoiesis. They argue that self-referential and closed—autopoietic—systems relate to environments in the form of a structural selection.

An autopoietic system, which for Maturana and Varela can be embodied in living organisms or machines, is operationally closed, but its organizational structure depends on the environment with which it interacts. Thus, the coupling of a system to an environment changes the structure of both system and environment. While Maturana and Varela do not discuss literary texts, their concept of autopoiesis describes processes of cognition. And even if not autopoietic in the sense of living and self-generating, literary texts are cognitive (Hayles 2017), that is, sense-making systems. From this perspective, rhetorical and narratological figures are sense-making systems, as are the formal and material aspects of a literary work, as well as syntactical structures, intertextual connections, generic setups, and so on. Which systems are relevant in a sense-making process varies and can be determined only by an act of reading—and different readings, such as the categories of close reading, hyper reading and machine reading discussed earlier in this chapter will generate different sense-making structures.

Whether this means that literary texts can communicate without the help of living beings is a question we will leave aside. For our method, it is sufficient to treat literary text as sense-making systems composed by structurally coupled systems, whose emergent organization is contingent upon structural

coupling with a reader. A narrative text, for example, generates meaning by the relation between narrative systems such as characters, perspectives, chronotopes, and diegetic levels, to mention only a few. A meaningful structure in a narrative text—a pattern of organized meaning—is created as different narrative systems are coupled to each other. Meaning and structure is in this sense dynamic and emergent. Thus, from a media ecological point of view, reading will always reorganize the structure of a literary text, actualizing patterns of sense-making tied to each instance of reader participation. The media ecological method we are proposing here, following Ramsay's example of algorithmic criticism, operationalizes the changes in environments and systems effected by structural coupling.

An approach of this kind, thus, couples different systems of communication—literary texts, as well as the systems composing literary texts: narrative, rhetorical, material, and so on—in order to activate structural and causal potentialities within these very same systems. This brings the media ecological method close to the kind of posthermeneutic method suggested by Rita Felski, by which readers become "energetic coactors and vital partners" (Felski 2015, 185) of a literary work. Furthermore, this extends the idea of labor and agency to all actors involved in the aesthetic object, human and nonhuman, technical and biological. The aesthetic object establishes meaningful systemic organizations in which creative energies emerge recursively and retroactively. Working as co-actor, structurally coupling systems of communication, the reader configures a given constellation of meaning, and a pattern emerges whose creative energies are retroactively established as being distributed among human and nonhuman actors alike.

Reading as a co-actor in this sense is always an experimental activity, and there is no way to calculate and estimate in advance the creative energies of emerging patterns. There is, however, the potential systemic capability of repetition, of recursively reorganizing the relations established through the process of environmental feedback. But recursion will always contain temporal slippage and the potential for new emerging patterns.

CASE 1: POETRY

Poetry has often, by default, been considered a genre for which self-expression and the thoughts, emotions, and inner life of an individual human subject are constitutive. Even if not exclusively the effect of a certain period and aesthetics—one could return to the Petrarchan sonnet and its legacy or go further back, to the lyric of Sappho—such a notion finds an important background in Romanticism. Accordingly, the German philosopher Hegel in his *Lectures on Aesthetics* from the 1820s conceived of poetry as the mediation of the

inner voice of a person to the rhyming and sounding words on the pages of a book, and William Wordsworth famously defined the genre, in his 1802 preface to *Lyrical Ballads*, as "the spontaneous overflow of powerful feelings" (Wordsworth 2013, 98).

Even so, the scope of poetic performance and writing have always been more differentiated and expansive. Modern poetry, from Mallarmé onward, has come forth as a negotiation between signs, sounds, and the visual constellations of words on a page, thus bringing in the materialities of writing and reading—of mediation—as crucial to the poetic form and expression. Such a materialist poetics has often stressed the embodied, affective, and performative dimensions of reading. The reader is situated in time and space as someone engaging and interacting with—structurally coupling, as a co-actor—the visual aspects of the page and the book as well as the sounds of words just as much as with interpreting the poem in silence. Moreover, the book as the privileged media technology of poetry has been challenged by performances on stage and by poetry installations at galleries, thus expanding and accentuating the relational aspects and the ecological form of poetic activity.

Consider, for instance, a poem called "Wave Rock" by the Scottish artist and poet Ian Hamilton Finlay, a classic example of concrete poetry from the 1960s (see Solt 1970, 207). This poem consists (in one famous version) of a photograph of a hand (the poet's?) that holds up a transparent plexiglass plate, on which a poem consisting of the title words are printed in bluish color. The words on the plate are stretched out and the letters slightly scattered around, jumbled, so that the visual configuration resembles, perhaps, a wave or a rock or a hill or heap of alphabetic particles. At the same time, the reader perceives, through and around the transparent glass, the surrounding landscape of hills, stones, grass, a cloudy sky, and so on. The verbal text is thus juxtaposed with and connected to a wider environment of material and semiotic elements that readers need to attend to and play with in their interpretation.

In other words, an ecological approach to the poem is called for which considers the material, spatial, and temporal coordinates of composing and reading. Rather than falling back on a lyrical, self-expressionist mode of interpretation, emphasizing the human subject as a base of understanding, a more complex weave of interrelations is invoked which have the potential of actualizing times and scales beyond a more narrow, anthropocentric perspective—a crucial ambition for eco-poetical endeavors today (Woods 2014; Bloomfield 2016; Clark 2019).

Focusing the relation between linguistic and pictorial systems of communication—the function of word and image, respectively—Finlay's visual poem stresses the process of structural coupling. The emergent organization of the word-image hybrid of the poem actualizes the double script of these two semiotic systems, expressing the poem's function as an ecological and

processual object. Placing the poem in a landscape further expands this operation and the coupling of different systems—the linguistic and rhetorical ecology of poetry (language, typography, material medium, in this case plexiglass) and the ecology of hills, houses, grass, trees and weather (formation of clouds and so on)—which affects both the composition and the understanding of Finlay's work.

Concrete poetry was an exponent of the avant-garde tradition in literature and art during the twentieth century, and this tradition has been pivotal for many contemporary forms of poetry, not least those exploring digital media in more inventive ways. Important here has been not only the intermedial investigation of how different modalities (text, image, sound) and interfaces (book, screen) can interact and generate different modes of reading literature, but also how various agencies, most notably human and machine, can collaborate and co-compose poetic works and thus also complexify their reception.

An example of this kind of work is Ranjit Bhatnagar's collection of poems, *Encomials. Sonnets from Pentametron* (2018). The title probably should be read as poem of praise (*encomium*), in plural, and the book consists of sixty-three sonnets under different headings such as "Anarchoindividualist" or "Philodestructiveness," which build a conceptual framework for the readings ("formal constraints" as Bhatnagar calls them, with a nod to the French experimental "workshop" and gathering of writers *OuLiPo, Ouvroir de littérature potentielle*). The pages of the book present perfect sonnets, albeit with a slightly twisted and defamiliarizing content. The most fascinating aspect is, however, how the poems were composed. Bhatnagar wrote a program, Pentametron, that communicated with other software on the web to trawl the ecology of social media for accidentally shaped iambic pentameters. The material collected (during a period of three years) was then organized into rhymed pairs, provided with interpunctuation, and gathered under the mentioned headings. Consequently, the sonnets are the outcome of an algorithmic method similar to the one suggested by Stephen Ramsay (2012) above.

The question is, how do we approach these sonnets as readers? First of all, and this is an inescapable condition, these poems do not have *an* author, whether human or machinic. They are the resulting configurations of a human-technical cognitive *assemblage* (Hayles 2017) that rather than hiding its specific function exposes and explores it. Thus, the quality of these poems needs to be negotiated differently. We cannot submit them to the standard reading modes and values. We have to consider that they are the output not only of an artificial intelligence but also of a partly alien intelligence that operates under other material conditions and on a different time scale than humans: machinic time, as it were (cf. Ernst 2012). Thus, what Clark (2019) calls "scalar literacy" and suggests as crucial for ecocriticism in a contemporary setting comes into play in poetic experiments such as Bhatnagar's.

When the importance of problematizing the anthropocentric perspective is brought up in relation to the climate crisis and current environmental matters, it is usually the capacity of literature to give voice to the more-than-human through figural or narrative devices in natural settings—birds, elephants, trees, lichen, rivers as protagonists in narratives or as voicings in poetry—that is considered. With digital media, such posthuman collaborations can be instantiated in a more material manner. But the two approaches can also be combined. An example of this can be found in another recent work of digital poetry called "Waveform" (2019) by Richard A. Carter, echoing Finlay's poem above and published in *Electronic Literature Collection* (vol. 4, https://collection.eliterature.org/4/waveform). In this screen-based work, text, sound, and video are combined to represent natural processes of waves in a movement hitting the shore.

But these natural processes are also invited, via digital technology and algorithmic procedures, as co-composers of the work. As Carter writes, commenting on the piece on the webpage:

> In this project, coastal shorelines are imaged using an airborne camera drone. The data gathered is then analysed using a machine vision algorithm that traces the nebulous boundary between wave and shore [. . .] The coordinates that define this boundary then supply variables for the algorithmic generation of short, enigmatic statements, which are curated to engage themes concerning the maritime environment, the perils and strangeness of life in a rapidly degenerating climate, and the interrelated acts of sensing, measuring, and knowing.

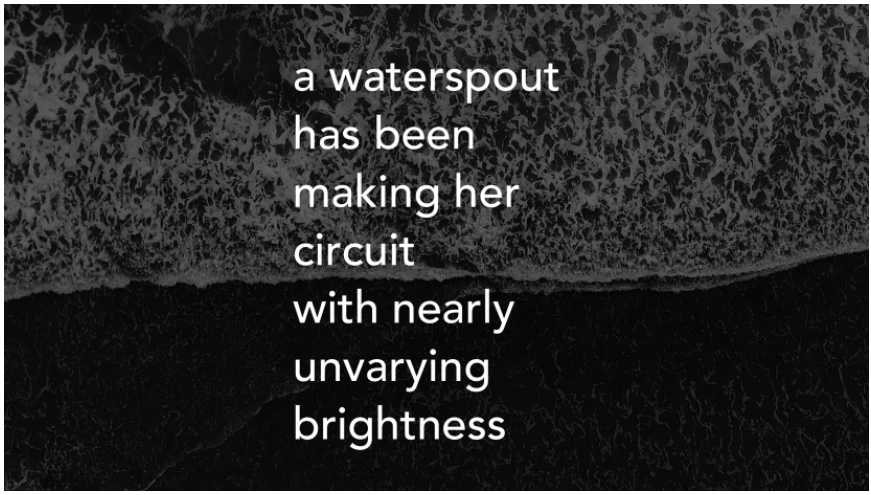

Figure 11.1 Screenshot from Richard A. Carter, "Waveform" (2019).
Source: Reproduced courtesy of the artist.

We find here, then, an example of how digital media as well as the agential forces at work in the ocean are engaged in a poetically evocative work that not only transforms the means of literary composition but also enforces a reflection on and reconsideration of the methods of ecocritical reading.

However, the latter cannot be summed up easily as a simple step-by-step procedure. Rather, the kind of poetical work addressed above—that decenters the lyric persona while integrating the nonhuman (Bloomfield 2021, 71)—encourages the reader to engage with more-than-human collaborators and to pursue more experimental, creative, and processual operations that couple the different systems at work (human, technological, natural). This is a way of doing things and asking questions that vary in accordance with the changing media ecology: pursuing readings that take into account the spatiotemporal setting, the multiple agencies evoked, and the material conditions for writing and reading as partaking in the creation of emotions and in the interpretation of words, images, and sounds.

CASE 2: NARRATIVE FICTION

To discuss an ecological approach as outlined above to the case of narrative fiction, we will take a closer look at the work of Finnish writer Leena Krohn (b. 1947). We will show that Krohn's work is an example of how structural coupling can be operationalized to generate potential patterns and new connections from a literary text, as well as how a literary text always is composed by a complex dynamic of structural couplings.

To a large degree Krohn's work is entangled in questions pertaining to the techno- and media ecological habitat of contemporary network and surveillance society. Her focus on ecological and eco-centric aspects of processes of communication orients toward questions of posthumanist thought. To a certain extent, it could be argued that Krohn's writings formally embody the dynamic, emergent process of structural coupling. Krohn's writing is often formally ordered as a set of short texts—stories, chapters, essays—organized conceptually rather than by traditional narrative categories. The relation between the discrete texts is open to configuration, making structure emergent. Narrators regularly duplicate and blend with characters and narratees, as well as with the environment. Metaleptic transgressions of narrative order abound.

The short book *The Bee Pavilion* (2006) is in many ways typical. The book reads as a weird psychogeography of a strangely changing cityscape, at which center stands the titular Bee Pavilion, formerly a home for the mentally ill, now transformed into a meeting place for collectives and societies of all sorts. The book comprises a kind of anthropological mapping of the worldviews

and ontological practices of a number of these collectives and societies. Each chapter, most often connecting to a specific society, unfolds as an independent short story, while at the same time being imbricated—metaphorically, thematically, stylistically—in the wider activities of the Bee Pavilion, both as a fictional space and as a metafictional device.

The effect is a work of literature that operationalizes structural coupling between discrete systems—some very clearly delineated, such as chapters and titles of chapters, others more tasking to pin down, such as societies, collectives, buildings, characters—in a dynamic interplay. The book uses the contingent agency of reader participation in the construction of new potential organizations. To this extent, *The Bee Pavilion* behaves much as an insect swarm or bee hive, figures regularly evoked in the book, being organized by its constituent parts in ever-new constellations while at the same time, through recursive feedback, reorganizing those very same parts, including the agential force of reader participation. Structurally and thematically, *The Bee Pavilion* invites an ecological and participatory reading, configuring discrete units according to emergent narrative orders.

Unlike *The Bee Pavilion* or the similarly openly organized *Tainaron* (1985), the book *Pereat Mundus: A novel of sorts* (1998) has a more traditional narrative form and structural composition. Nevertheless, it is a form that opens to continual reconfiguration, with a temporal progression which at times seems fractal rather than linear. At the face of it, *Pereat Mundus* has a clearly identifiable protagonist, a man named Håkan, as well as a recurring supporting character functioning as a kind of witness and vicarious narrator, a psychiatrist called Doctor Fakelove. There also seems to be some kind of narrative progression and coherent world unfolding. The story itself can best be described as a mix of genres and modes, a gothic science fiction, weird tale with strong postmodernist and cyberpunk tendencies, while at the same time operating firmly within the realm of the literary fantastic. It is no coincidence that lines from Edgar Allan Poe and Jorge Luis Borges are quoted on several occasions.

The book is narrated over thirty-six chapters. The first chapter, "Cold Porridge," sets the ontological frame and introduces the protagonist in the opening paragraph:

> Håkan, too, had a brain. His brain did not contain a program, but nerve-cells connected to one another by the million, a giant, dynamic network. A layman who happened to see inside Håkan's skull might make the mistake of imagining that all the bowl contained was cold porridge. Not a pretty sight, that's for sure. But that porridge—when it was still warm—was a universe in itself. (Krohn 2015, 275)

The chapter centers on the question of subjectivity and proposes consciousness as an emergent phenomenon. Håkan is working as an amanuensis at the "Transfer Institute," where through protein-based, optical quantum computing they have successfully transferred his mind from the "cold porridge" to the neural networks of an artificial Håkan. Instantly the artificial Håkan concludes that although they started out from identical memories, as soon as the memories emerged in organized form, they no longer shared identity.

Autopoietic emergence is thematized within the book as a potential explanation to the phenomenon of consciousness, insisting, as the artificial Håkan, that any recursive organization existing in a spatiotemporal setting can never be identical to its previous iteration. Instead, the systemic organization of structural coupling generates nonidentical identities in the form of fractal recursive loops. This is also structurally performed by the organization of the narrative.

Each chapter of *Pereat Mundus* generates a new storyworld. But as each chapter is also connected, each newly generated storyworld emerges from, but also changes the relation between, previous chapters. Perhaps the most eye-catching emergent and ecological aspect of *Pereat Mundus* is the repetition and transformation of the character Håkan, following recursive feedback loops between systems and environments. Håkan, as designation of a character in a literary system, is of course a very simple form of algorithmic writing in Ramsay´s sense, operating both on a denotative and prescriptive level, being both a description of a character and the pattern organizing this description. Thus, as each chapter presents a new version of Håkan, *Pereat Mundus* stresses Håkan as an emergent, ecological concept, a systemic organization of an environment. Each chapter of Krohn's book functions as an emergent pattern, being organized by the coupling of the character Håkan to a new environment that provokes a new emergent pattern of meaning.

A media ecological method treats the narrative text of *Pereat Mundus* as a system of systems whose potential organization is activated by structural coupling, thereby provoking the double forces of algorithmic writing. This "deformative" (Samuels and McGann 1999) ecological reading can be generalized and applied to the relation between chapters and narrative worlds generated by chapters, each operating as a pattern and emergent, systemic organization of an environment.

CASE 3: COMICS

The media ecological approach we have suggested treats acts of communication as systemic processes. Media operate as complex systems that can be coupled to other systems. This ecological understanding of media is even

more evident when dealing with hybrid expressions, such as the concrete poetry discussed above, in which the explicit relation between systems of communication turns reading into participating in the act of structurally coupling systems and environments. We will now turn briefly to an overtly hybrid form, namely comics. The medium of comics has always demanded a high degree of participation from its reader, regardless of publishing tradition and readership. Comics is often described as an interactive and haptic form of expression, operating by the relation of discrete systems of representation; not only words, images, and design as well as narrative structures are central to the reading practices of comics, but also coloring, printing, binding, and various material aspects (Kashtan 2018). Comics are also, at least in their mainstream formats, produced by a large number of different actors, such as writers, illustrators, editors, letterers, inkers, printers, and so on. Furthermore, comics has always been a form of expression closely tied to printing technology and mechanized forms of production.

The work of Greek conceptual artist and researcher Ilan Manouach (b. 1980) investigates the bio-technical and cognitive assemblages of the contemporary comics industry and the different material and cultural environments it involves. Manouach's conceptual comics incorporate distributed forms of labor, and they often intervene in and comment on the social and material affordances of the culture industries, mainly the printing industries and in particular the comic book industry. Manouach's book *Blanco* (2018), for example, is an all-white, or "blank" book reproducing the exact material specifications of the standard album format of Franco-Belgian comics. In a sense, *Blanco* reads as pure material infrastructure, a material instantiation of Timothy Morton's concept *ecomimesis* (Morton 2007), where representation turns from what is represented to the structures of representation. This transition from background to foreground, and vice versa, focuses the environment of the medium as a system of communication. By materially highlighting the communication processes of media, where one system of representation folds into another, Manouach's comics stress reading as a participatory experience in which the emergence of perception includes reader and comic book structure alike. The environment of the medium, encompassing the embodied senses of the reader, becomes part of a new emergent organization.

Thus, Manouach's work produces an analysis and critique of labor distribution and the capture mechanisms organizing experience in cybercapitalism, at the same time generating interfaces and forms of experience beyond this systemic capture. Recursion here does not only entail self-generating repetition of a pre-given organization, a pre-given script, in the form of the Franco-Belgian comics format, for example; it also reacts to and collaborates with the environment it organizes. It is a posthumanist co-creating process, respecting while not simply succumbing to the agency of the machine. This

co-creative force is perhaps particularly salient in Manouach's imposing manga *Fastwalkers* (2021), a five hundred page comic and artist book hybrid weighing in at just over 2.3 kilograms.

Fastwalkers was produced using AI models. The images were made by training a generative model on the database Danbooru, a fan collated and tagbased archive of anime images. The training mainly focused on hentai, that is, erotic or pornographic images. A large part of the text for the book was produced by training a model on the introduction to Manouach's doctoral dissertation. The organization of words and images, sequences, captions, and pages were also done using AI models.

What kind of book is *Fastwalkers*, and how can we approach it? Clearly, we are not dealing with an expression of an authorial self. Rather, a more appropriate way to think about the book is as a cognitive and creative assemblage involving machinic as well as human forms of communication. As an aesthetic object, *Fastwalkers* operates as a regular comic or manga, that is, generating experience in a reading process that distributes the perception in an ecology of interacting systems. Thus images, text, iconographic figures such as speech bubbles, colors, and lettering are coupled to page layouts and the haptic interaction of navigating the spread. Here, perception is, as always emphasized by comics, an ecological activity marked by the emergent feedback and organization of an environment. But here we are also confronted with a system of communication that to a large degree is machinic.

On a semantic and thematic level, the comic opens to configurations adhering to a dystopian, cyberpunk-inspired landscape, in which the sometimes disjunctive ramblings of quasi-formed mangaesque characters eerily echo posthumanist thought and the techno-philosophies of contemporary media theory: "Enzymatic data runs through the human network" (Manouach 2021, 41). The effect of coupling the text to the flow of images and design is often poetic, a kind of sounding the digital subconscious of large language models. And to a certain extent, it is also the generic setup of the training material that emerges from these machine-generated forms of expressions, whether images or text. But more relevant to a media ecological framing is the continual insistence on staging emergent processes and formations of semirealized patterns, as evident in the sequences in the page below, capturing gradual forms of becoming.

Whether corresponding to the learning processes of generative models or not, the comic stages emergent processes, thematically as well as formally and materially. Just as Krohn's swarm-like narrative fictions, *Fastwalkers*—and Manoauch's conceptual, postdigital comics in general—operate on and respond to the collaborative composition of a co-actor.

While *Fastwalkers* cites Manouach as author on the cover, there are more authorial functions at play here than that of the conceptual artist. We can talk

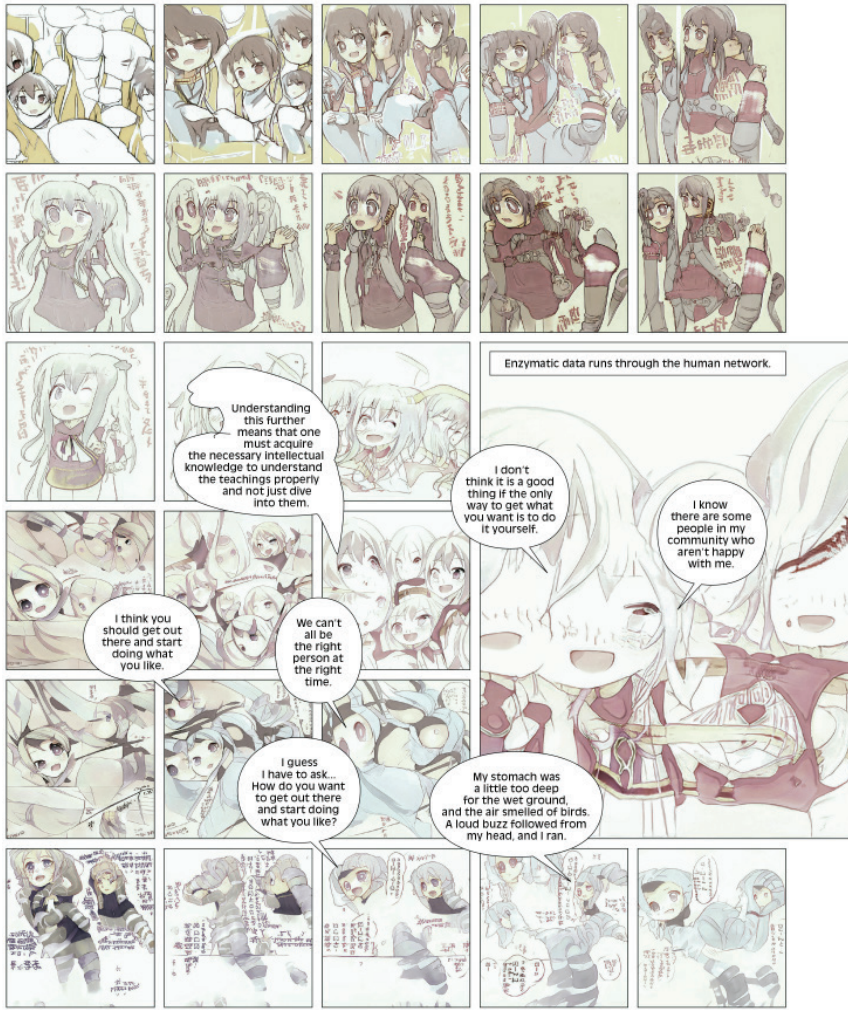

Figure 11.2. Ilan Manouach, *Fastwalkers*, p. 41.
Source: Reproduced courtesy of the artist.

about the book as an edited, collaborative work or a kind of curated site. But then again, we are dealing with a systemic organization consisting of a large number of embedded systems that are at least potentially reorganizing the whole. It is a machine consisting of embedded machines. Operating as an aesthetic object by a distinction between meaning making systems, each segment of machine-generated system at the same time establishes a relation to the overarching system of the book and its machinic mode of production. It is a human-machine hybrid book, an assemblage of algorithmic communication,

that by structural coupling emerges in new and unforeseen patterns and configurations, not only internally in relation to the systems contained within the book as a physical object but also ostensibly with the wider cultural and technological environment of the comics industry, of manga fandom, artist book production, reader perception, and more.

CONCLUDING REMARKS

In this chapter we have outlined some critical issues around literary writing and reading in relation to digital media and natural ecologies. We have discussed briefly how digital media affect the natural environment and the planet at large (e.g., through electronic waste), how literary representations of the environment can use digital tools to enhance and deepen understanding of the climate crisis and of the Anthropocene, and, especially, we have explored the theoretical and methodological implications of an ecological approach to literature through a broader conception of ecology (Morton 2007) that acknowledges the inescapable imbrications of nature and culture, natural and technical environments in the early twenty-first century.

While, as Amitav Ghosh (2016) claimed, the traditional realist novel has manifested difficulties in challenging an anthropocentric view and representing events and stories that take place on other spatial and temporal scales, we have focused our discussions in the chapter on other forms of literature, such as digital poetry, experimental fiction, and comics that disrupt more established forms. As Parham (2021,14) has suggested, one might observe an affinity between "ecologically minded literature" and "avant-garde or experimental form." One could even suggest that literary works in this vein develop what might be called ecological forms and formations.

To this end, we have taken a cue from Stephen Ramsay's (2012) notion of an algorithmic criticism that paves the way for a more creative and experimental mode of reading. By employing the concept of "structural coupling" (Maturana and Varela 1980), we have not suggested a discrete step-by-step method but rather have tried to set up a space for thinking about ecology, systems, scales, and nonhuman agencies at the different intersections of the digital and the natural.

If Richard Powers' fascinating *The Overstory* shows how the novel today can challenge the doubts of Ghosh and address planetary issues, the interconnection of different scales and systems and their more-than-human aspects, the literary works read in this chapter can be said to operate in a similar way. *The Overstory* couples the living processes of trees and forests with the digital and technical realm. On the one hand, this is done on a semantic level, by the novel thematizing the parallel emergence of cybernetics and systems

theoretical thinking with an ecological awareness of environmental agency. On the other hand, this pairing of systems of digital communication with the living world of symbiotic communication is performed by the narrative structure of the book, using the contingency of reader participation as co-actor, generating new and unforeseen patterns, extending into what we with Bridle can think of as the wood wide web.

Activating the double script of algorithmic writing, the examples raised in this chapter from poetry, narrative fiction and comics indicate how structural coupling as a compositional method of reading, just like the ecological ramifications of Powers' book, connects concrete and embodied localities with a network of intersecting systems. While these systems of communication differ in many aspects, such as scale, materiality, and function, they nevertheless organize information and in various ways compose emerging media ecologies. As an experimental method, there is therefore no way to foresee or even contain potential future organizations of alien environments—technical, biological, cultural, social, material—actualized by the structural coupling of coactive compositional reading. These are the dynamic branchings of digital media ecologies, reading the bio-technical overstories of the contemporary habitat.

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Chapter 12

Intermedial Ecocriticism

Jørgen Bruhn and Niklas Salmose

The planetary ecological crisis is not a "natural" phenomenon. It is a threatening emergency created by humans who live in destructive economic systems that are supported by ideological structures and cultural ideas. Important symptoms of the crisis are examined and described in the natural sciences that investigate, dissect, document, and communicate the planetary crisis from the different standpoints including biology, geology, atmospheric chemistry, climate science, and oceanography. The natural sciences, as well as other specialized research fields, work in relatively closed communities, where experts develop theories, analyze data, and communicate with each other in specialized articles in trade or professional journals, or via presentations at academic conferences, often directed at other natural scientists. The (natural) scientific knowledge production is a complex process, which, among many others, Bruno Latour and his successors have mapped using anthropological methods (see Latour and Woolgar 2013). An important insight behind *Intermedial Ecocriticism*, which we will present in this chapter, is that knowledge about the ecological crisis reaches nonnatural scientists through nonscientific media products in many different genres, or as we term them according to intermedial terminology, media types.

From the very beginning, scientific research transforms or translates the processed information into concrete media products in various media types, for example in scientific articles and abstracts for conferences, in poster presentations, or in oral conference presentations. Scientific data, again using intermedial terminology, undergoes a media transformation. Everyone outside the narrow circles of natural science learns about these results only after yet another, or even many, media transformations have taken place in which the scientific findings are transformed into, for example, newspaper articles, teaching aids, or government or municipal information materials.

Neither the aesthetically involved ecocriticism nor the communication-oriented research within, for example, risk, science, or global warming communication discusses the problem that there is no general theory or method that can be used to analyze and compare a large and broad number of texts in different media types that represent the crisis. In a research group based in Linnaeus University's intermediality environment, we are trying to develop exactly this, and we call our approach *intermedial ecocriticism*.

An immediate aim of intermedial ecocriticism is thus to combine important insights from intermedial studies with various ecocritical and communication-oriented theories to better understand possibilities and limitations in different media types' presentation of a problem that needs to be communicated in the most efficient way. The goal is to create new knowledge that can be used to understand the possible impact of eco-communication, while the results can be used on the production side to reach a more precise or more effective communication about one of the fatal issues of our time. More concretely, this can be achieved by comparing different texts in different media from an intermedial starting point.

To exemplify the method, which we apply on a larger scale in our co-written monograph *Intermedial Ecocriticism. The Climate Crisis through Art and Media* (2023), we analyze in this chapter two very different media products which have in common that they consciously and explicitly relate to specific aspects of the ecological crisis. As indicated above, this kind of comparison—in our case between a website and a feature film that both present aspects of food of the future—is extremely unusual in ecocriticism and in other communication-oriented disciplines. If we simplify a bit, we could say that a traditional ecocritic would be comfortable discussing the fictional, aesthetically oriented film, while a more communication-oriented researcher would feel most secure analyzing the popular science website. Intermedial ecocriticism wishes to analyze and compare the two media products using a common methodology.

We begin this chapter by outlining, in the first part of the chapter, what we perceive as the scientific problem addressed by our theory. Next, we describe the theoretical background, where we mention our approach to ecocriticism before introducing some necessary starting points in intermedial studies. This leads to a brief description of an analysis model in three steps. In the second part, we exemplify the model by describing and discussing the popular science website www.eatforum.org, which mediates social and natural science research on the ecological consequences of food consumption now and in the future. We compare this to a science fiction film, Denis Villeneuve's *Blade Runner 2049*, where a possible future food scenario is represented in a tangible, if fictive, scene.

PART ONE: INTERMEDIAL ECOCRITICISM

Intermedial ecocriticism is of course not alone in being interested in questions about different media representations of ecocritical motifs and themes; among others, critical science studies and science and technology studies (STS) have expanded the critical insight that the production of science is part of a complex network of collaboration, negotiation, communication, and competition. More specifically, some media and communication studies investigate health communication or general and specific communication around risk (for example, epidemics and weather phenomena).

The research that, in addition to ecocriticism per se, is closest to intermedial ecocriticism is that conducted in environmental communication studies (Comfort and Park 2018) and climate change communication studies (Moser 2016; Chadwick 2017). Somewhat simplistically, these communication-oriented traditions (exploring information related to health, risk, science, or global warming) tend to focus on journalism and mass media. The focus is on the measurable impact on recipients of information in the short or long term. These studies are therefore not occupied with the formal or thematic structures of the texts or with the historical background behind the texts' form or function. From a humanistic, not least a literary, perspective, this social science approach appears one-sided. In the humanities, most people are well aware that communication is not about the direct transfer of information from a sender to a receiver; it is also considered a given that the form of a message matters.

In other words, we are faced with an extensive corpus of media products in many different media types that neither ecocriticism (with a focus on artistic media) nor communication research (with a focus on journalism and other fact-based communication) has taken a broad hold on. Intermedial ecocriticism wants to collect, analyze, and compare individual examples of what Cubitt and others call "ecomedia" (Cubitt et al. 2016; see also Lopez et al. 2023): the very extensive material that spans almost countless different media forms that more or less explicitly represent aspects of the planetary crisis.

Fundamental Ecocritical and Intermedial Ideas

Intermedial ecocriticism takes its point of departure from, and aims to develop, modern ecocriticism. Cheryll Glotfelty's classic definition of ecocriticism, "the study of the relationship between literature and the physical environment" (Glotfelty and Fromm 1996, xviii), is too narrow for our project. We wish to broaden early ecocriticism's focus on literature, which is a trend that already exists in the field. Art history, film studies, and music

studies are now included in ecocriticism (Barry and Welstead 2017; Cubitt et al. 2016), and we want to develop this tendency further.

We would like to briefly summarize the extensive intermedial conceptualization, still under development, by way of three basic starting points: 1) heteromediality; 2) a combination of media integration and media transformation; 3) affordances (contextualized media specificity).

The first point of departure, heteromediality, is the understanding that all media products are mixed, medially and modally. Media mixing not only takes place between individual media, but the mixing is also a fundamental element of all media products, which is why one can speak of heteromediality (Mitchell 1994; Bruhn 2010).

Given the heteromedial nature of all media products, it would be tempting to reject the idea of media types or other more stable media formations. But Elleström points out that in principle all individual media products (which in other traditions are called, for example, "texts" or "utterances") are always part of a "media type" (Elleström 2020). The different media types can be systematically determined based on three dimensions: the basic media type (words, moving images, sound, color), the qualified media type (literature, documentary film), and the technical medium of display (a book, an iPad). In addition, media can be established based on four modalities (material, sensorial, spatiotemporal, semiotic). The implications of using these descriptive categories will emerge from our analyses below.

The second starting point is that we assume all heteromedial media products can be analyzed based on one of two dimensions: *media integration* or *media transformation*. If one is investigating the media integration perspective, one is interested in how two or more media forms produce meaning in a media product, such as a road sign with text and a triangle-shaped image; an opera aria with words, music, scenography, and acting; and a scientific article with diagrams, words, and photographs.

The media transformation perspective, instead, investigates transformations of form and content from one media type to another media type that occurs during a temporal process. A well-known example of media transformation is adaptation, such as the transformation of a novel into a film. Adaptation research is among the most extensive areas in the study of media transformations, but adaptations are inherently atypical because it is rare that an individual media product—a specific novel, for example—is directly transformed into another, well-defined media product (such as a film). Often, media transformations are much more complex. Consider the scientific understanding of what an atom is: via a media transformation, this knowledge must be transformed into one or a few pages in a physics textbook for elementary school pupils. There is probably not a single source behind the physics book (the atom was "understood" already in antiquity and has been

investigated in modern laboratories and theorized in quantum physics), and authors, graphic designers, and scientific experts collaborated to create most educational materials. This expanded field of various kinds of media transformations was introduced, among other things, in Linda Hutcheon's important *A Theory of Adaptation* (2006) and has recently been carefully explored in an intermedial overview of transmediations (Salmose and Elleström 2020).

The third important point of departure in intermedial studies is that different media types have different affordances, defined here as possibilities and limitations (see, for example, Kress 2010) which make it possible for certain aspects to be presented without any difficulty in one media type, while the same elements can be produced only with great difficulty in other media types. It is natural for an elementary school physics book to present facts, but facts are more difficult to incorporate in poetry (discussed in Tornborg 2020). "Transmediality," as it is defined in intermedial studies, refers to the elements that can be transferred from one or more media types to one or more different media types. There are stable formations—for example oil painting, political speech, or sign language—but these media types change over time and space and in relation to their contexts. The formats of media are only relatively stable and thus historically changeable, which we refer to as "contextualised media specificity" (see Rajewsky [2010] for a theoretical discussion of affordances and media specificity, and Gjelsvik [2013] for a concrete discussion that uses the concepts).

The Question of Representation in Intermedial Ecocriticism

A recurring question in the environmental humanities and ecocriticism is how the ecological crisis can be presented in ways that allow decision-makers in politics and commerce as well as private individuals to understand the extent of the ecological crisis and begin to act to avert its current and future threats.

Rob Nixon is one of many researchers who has pointed out the difficulties in representing and thus understanding global warming (which also applies to several other elements of the ecological crisis). His well-known formulation of global warming as "slow violence" is defined as "a violence that is neither spectacular nor instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales" (Nixon 2011, 2). Apart from the concrete and extensive human consequences that this process of violence creates, the different temporal scales entail a series of complex representational problems. More recent ecocriticism has often adopted the idea of the "hyperobject" put forward by the literary critic and ecophilosopher Timothy Morton (Morton 2013; see also Ooijen's contribution in this anthology). The question is, what do we gain by using a

concept that points out the near impossibility of representing the ecological crisis? Boulton (2016) has critically discussed the idea of the hyperobject, and Mikkel Krause Frantzen redefines aspects of Morton's hyperobject in *Klodens Fald* (2021). We adhere to Nixon's and many other ecocritics' recognition of the difficulties surrounding an artistic, fictional, or documentary representation of the crisis, but we do not want to magnify these difficulties into a general representational impossibility.

We find that representation by means of different kinds of signs is one of several fundamental aspects of human communication. Representation is a process that uses media products to "stand for" any imaginable physical, mental, fictional, or nonfictional phenomenon. The representation is therefore never identical to what is represented, and this also means that representation includes performative elements. Representation always moves on a sliding scale from higher to lower precision or similarity (but never complete identity). Verbal as well as visual communication and many other forms of communication are usually quite effective tools, but there are other cases where representation is ineffective and vague—and sometimes even deliberately inaccurate. Representation, based on our intermedial starting point, is thus relative, and it is contextually defined: representation is situated but not impossible.

A Proposed Method

The goal of intermedial ecocriticism is to analyze and compare representations of the ecological crisis in different media types, and the first step in that analysis is therefore to select one or several ecomedia products to analyze, as well as one or more questions or topics to be included in the analysis: in short, choosing examples and formulating a question. Of course, the complexity grows with each added media product to be considered and with each question added.

Possible questions are almost unlimited. They could be about comparative investigations in different media types about specific aspects of the ecological crisis, and more concretely they could be about narrative aspects of representations of global warming in journalism, film, and visual arts. They could be about the representation of human agency in relation to the crisis in natural science museums and in fiction, or about the production of truth claims in eco-poetry and in scientific communication.

Methodologically, we propose a three-step model, which is a modified version of previous work (e.g., Bruhn and Gjelsvik [2018], and in particular Bruhn [2020], and Bruhn and Salmose [2023]). In the first step, an intermedial description of the selected media products is produced which determines the most important features and affordances of the media type: Here it is an

advantage to determine the four modality categories and to point out the presence of the three media dimensions.

In the second step, after the descriptive establishment of the basic media features, analysis and interpretation of the ways in which the media product interacts with the selected question are carried out. That is, the following question is asked: How can the media products, by virtue of their specific affordances, represent aspects of the chosen ecological issue?

In the third step, the result of the second step's analysis is compared with one or more media products—and after that, the comparison can be placed in a valid context.

PART TWO: A CASE STUDY

Framing of the Question and Material

Although food is essential to humans and is something we engage with every day, it tends not to be a central focus of discussions about the overall discourse of climate change. One possible reason for this is how proximate food is to tradition, heritage, and culture, and hence, in some ways, food is seen as untouchable—it should not be changed. Nevertheless, food is increasingly gaining attention as part of the climate puzzle, with sustainable food cultures being seen as an important step toward deaccelerating the climate crisis; climate science refers to this as "a Great Food Transformation" (Willet et al. 2019, 448). This shift needs to challenge the way in which food is produced, processed, distributed, and consumed, which is a tremendous systemic and logistical endeavor, not least because it needs to consider the unresolved and poorly understood cultural challenge of changing a culture's understanding and consumption of food. Food and the way people eat are intimately tied to cultural heritage and to reproductions of ethnic, gendered, class, and racial identities. Food is also explicitly related to several of the reasons behind climate change, according to the UN's list noted earlier: Food systems around the world account for about 30 percent of the world's total energy consumption (food production, food transportation, and food storage); there are massive conversions of biodiverse land for agriculture; and obesity is caused by the overconsumption of unhealthy food.

In January 2022, *The Lancet* published a call to action called *Food in the Anthropocene*: *The EAT–Lancet Commission on Healthy Diets from Sustainable Food Systems*. The Lancet Commission observes that

> civilisation is in crisis. We can no longer feed our population a healthy diet while balancing planetary resources. . . . The dominant diets that the world has

> been producing and eating for the past 50 years are no longer nutritionally optimal, are a major contributor to climate change, and are accelerating erosion of natural biodiversity. Unless there is a comprehensive shift in how the world eats, there is no likelihood of achieving the Sustainable Development Goals . . . or of meeting the Paris Agreement. (Lucas and Horton 2019, 386)

The aim of the commission is to help outline how this shift in "how the world eats" can come about. In its summary report it launches a very ambitious program aimed at making people eat in ways that are more sustainable both for their bodies and for their environment. This program is scientifically well grounded and a necessary step toward addressing both poor diets and climate change.

Our analysis will, from an ecocritical perspective, compare two very different media products, a popular science website and a science fiction film, focusing on representations of food cultures' relationship to the ecological crisis, today and in the future.

The first media product that will be analyzed is the EAT Commission's website. The commission consists of 37 world-leading researchers in fields including human health science, agricultural research, political science, and climate research, and it aims to facilitate the transition to sustainable food cultures. The commission has realized that scientific articles have a great impact in science but less effect in other contexts outside the scientific environment, and therefore it has constructed a website with a popular science framework: Eatforum.org. The website is aimed at a general audience interested in environmental issues and food culture. The goal of the website is to spread information about and create the conditions for a changed food culture.

The second media product analyzed is a scene in the film *Blade Runner 2049*, directed by Denis Villeneuve and produced by Ridley Scott in 2017. The film takes place in a dystopian 2049, thirty years after the first *Blade Runner* film (Scott 1982), and it paints a picture of a bleak future landscape where the boundaries between human and nonhuman have blurred. The film belongs to the genre of speculative climate fiction and obviously has different premises and goals from the popular science website Eatforum.org, even though both media types are typical ecomedia types and represent Anthropocene-related questions. One can thus attribute critical (and food culture) ambitions to the film in addition to its commercial and entertainment-related purposes. The film's ecological focus becomes clear from the start when, via an informative nondiegetic text, it tells the audience about the collapse of ecosystems in the 2020s and how humanity has been saved from starvation through the development of synthetic agriculture. The film's first scene takes place on a protein farm and confirms the film's fundamental ecological and food-oriented concerns.

According to the three-step model, one must formulate a specific question or theme that guides the media analysis and comparison. The theme of this comparative analysis is future food cultures, more specifically, how ideas about future food cultures are represented. The analysis can therefore also hint how these representations can influence or activate people to change their attitudes about sustainable food culture (see also the chapter on empirical ecocriticism in this anthology).

STEP 1. INTERMEDIAL DESCRIPTION

Eatforum.org

The media product Eatforum.org belongs to the media type web page. It is a particularly heteromedial media type, mixing the basic media of written words, images, illustrations, simpler animations, and moving images. Regardless of which technical medium of display one uses to experience the website, Eatforum.org is primarily a visual experience but also a tactile sensory one. When you interact with it on a traditional laptop, a tablet, or a mobile phone, you scroll and move around the web page with the help of a mouse, a keyboard, or a touch screen—that is, using your hands and fingers. The spatiotemporal modality is dominated by the two-dimensional spatiality of the screen, but the interactive qualities of the web page create a personal, nonlinear experience of time, even though web pages are usually designed to strongly suggest a certain order and structure of the experience. At Eatforum.org it is extremely easy for the user to find their own narrative and focus. The web page's interactive possibilities, something it shares with, among other things, computer and video games, are prominent in this special media type.

The design of the website looks simple, rich in contrast, clearly structured. It initially gives a clear impression, but once you start clicking and scrolling up and down on Eatforum.org, you can easily get lost in a complex and multifaceted structure that has many subpages and introduces many new categories. That said, it is relatively easy to find what you are looking for.

Blade Runner 2049

Blade Runner 2049 belongs to the media type film and its basic media consists of moving two-dimensional images and sounds structured in a predetermined sequential order. On a sensory level, the film is perceived with sight and hearing, and to a much more limited degree with tactile interaction. In terms of genre, *Blade Runner 2049* can be defined as a dystopian science fiction film and as speculative climate fiction (Raipola 2015).

The scene we take a closer look at is when the film's main character, K., a so-called replicant (a biotechnologically produced human), is having dinner at home in his apartment. Outside it is grey and dreary with an eternal acid rain pouring down, which is interrupted only by sudden snowstorms that pass by. Through the apartment window, one can see an infinite number of similar apartment complexes. Frank Sinatra sings "Summer Wind," which forms a strong contrast to the film's gloomy scenography and cyberpunk tone. The song's lyrics create a nostalgic frame of a summer that never returns (in the film's 2049 it is constantly winter) and of the post-war American dream, where heterosexual romantic love is the cornerstone of a conservative culture and way of life. Joi, the main character K.'s artificial, or virtual, girlfriend, is dressed as a waitress from a 1950s diner or ice cream parlor. She serves K. a dinner consisting of steak, fries, and green salad, which is actually an image projected over the real food, a plate of unspecified brown mush. (It is worth noting that the food projected is exactly the kind of food that the EAT report in the *Lancet* does not recommend—it is both unhealthy and unsustainable, illustrating the conflict between food's utilitarian value and its cultural value.)

STEP 2. FOCUS ON AFFORDANCES

After the first step of our intermedial ecocritical method, where the media products themselves have been described in intermedial terms, we now begin step two by discussing these media features based on our main questions as they were formulated earlier in the text. It is important to point out that media-specific aspects of these media products that were not discussed in detail in step one are accentuated and nuanced when a specific question is raised during the media analysis. This applies in particular to the reading of

Figure 12.1. Screenshot: Joi serves K. dinner in *Blade Runner 2049*.
Source: FILMtitel.

Figure 12.2. Screenshot: Steak, fries, and green salad projected over a plate of unspecified brown mush in *Blade Runner 2049*.
Source: FILMtitel.

the web page, where the organization of the content can be linked to questions concerning food cultures, inclusion, and agency. Thus, the analysis of the web page is considerably more comprehensive than the analysis of the film scene, since the interaction on the web page creates many more interactive medial possibilities than the preordered sequentiality of the film.

Eatforum.org

Eatforum.org is an informative, popular science website representing the fundamental scientific view that a radical, global restructuring of food culture and food production is necessary. Thus, the website has a clear goal. This guides the content of the website's eclectic mix of informative text, news text, shorter press releases, shorter and longer scientific and popular science articles and reports, colorful photographs (which have a zooming-in option when hovered over), diagrams, and a small number of short, informative clickable films and filmed lectures. The entire website is structured around five selectable categories that are always at the top of the currently viewed page: "Learn & Discover," "Knowledge," "Initiatives," "Events," and "About EAT."

Before we take a closer look at the two categories "Knowledge" and "Initiatives," it is worth mentioning "About EAT," which is likely the first category a new user clicks to. Here users are greeted by an image of crops on the left side, where the ecological, life-affirming, and health-oriented color green forms a clear visual and symbolic contrast to the dark soil. The layout of Eatforum.org often juxtaposes images and texts so that each visual gives emotional power to the short text next to it. The supplementary text for the picture of the crops is entitled "Who we are," and the use of the pronoun "we" testifies to a movement, a group, and a belonging, that is, something

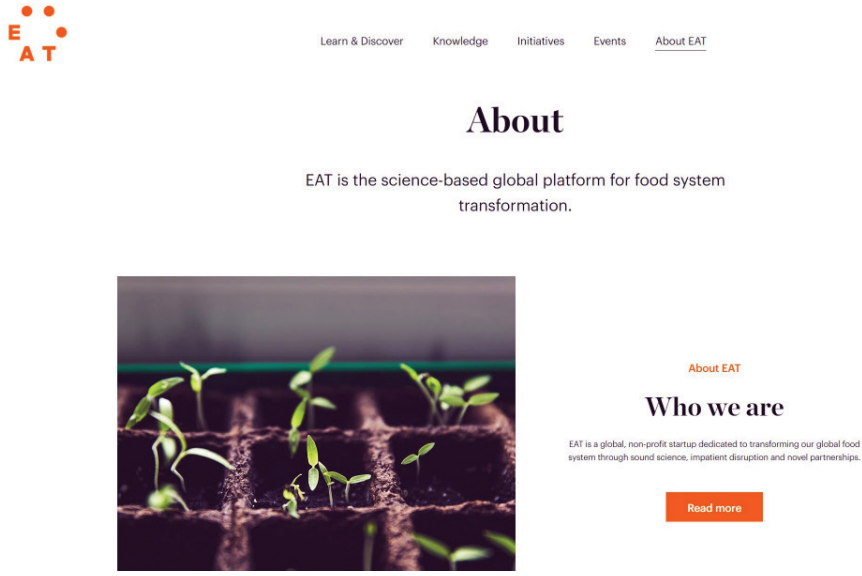

Figure 12.3. Screenshot: "About" from Eatforum.org.
Source: Reproduced with permission by Eat.org.

powerful. The absence of a question mark helps to create a sense of safety and security: We know what we are—we are welcome to connect. The following text is short and concise: "EAT is a global, non-profit startup dedicated to transforming our global food system through sound science, impatient disruption and novel partnerships."

The complementary photo of the crops underlines the feeling of something new, something growing, a grassroots movement with elements of activism, a "non-profit" that is positioned far from classic institutions and political arenas. Here you can participate and find like-minded comrades. It is very inclusive thanks to the simplicity of the message and the way the photography and text complement each other. An orange box with the text "Read more" offers a route to further information but does not force the user to leave the overview (and control), which gives the feeling that the page has been made for the user and not the other way around.

It could be said that the site works in two different time and space dimensions: a macro and a micro perspective. If you scroll down, you are met by the heading "People" that is opposite the heading "Who we are," which creates contrast and variety. There you can read that "Our people are our greatest strength," which further cements the feeling of a people's movement and cross-border collaborations between different cultures, countries, and professions. "People" is complemented by a group photo of EAT's jubilant trustees, researchers, and other staff standing in front of a large screen with a photo of

London showing what appears to be a conference stage. The photo is accentuated by text that appears in the background view showing in the photo; it directly asks the user: "WHAT WILL YOU DO?"

It is difficult not to feel involved in EAT and its project, even without knowing exactly what it consists of. The interactive aspect of the media type website is in itself inclusive, and users can choose how to approach EAT, as the website encourages them to join the community and participate. This trend continues throughout the categories "Knowledge" and "Initiatives."

In "Knowledge" we are greeted by a color-saturated photo of a woman selling spices and vegetables in what appears to be a market or bazaar. The photograph is taken from an extreme bird's eye view and thus presents a seemingly objective overview, which fits very well with a scientifically based knowledge page. Furthermore, the woman's inherently undefined yet clearly non-Western ethnicity underscores an inclusive global focus. Next to the photograph is some text. First there is a small amount of text in red that marks what this link is for (in this case a "report"), and then the title appears, "The EAT-Lancet Commission on Food, Planet, Health," with the subtitle "Can We Feed a Future Population of 10 Billion People a Healthy Diet within Planetary Boundaries?" This is the scientific background of the entire concept of EAT, reduced here to a popular science description. Thus, three different levels of knowledge are represented: science, popular science, and what can be described as an emotional response to facts.

If users linger on the photo of the woman and the market/bazaar, they may note that the food in the dishes seem somewhat exotic to Western users, but on a deeper level the photo can be seen as a response to the criticism that the

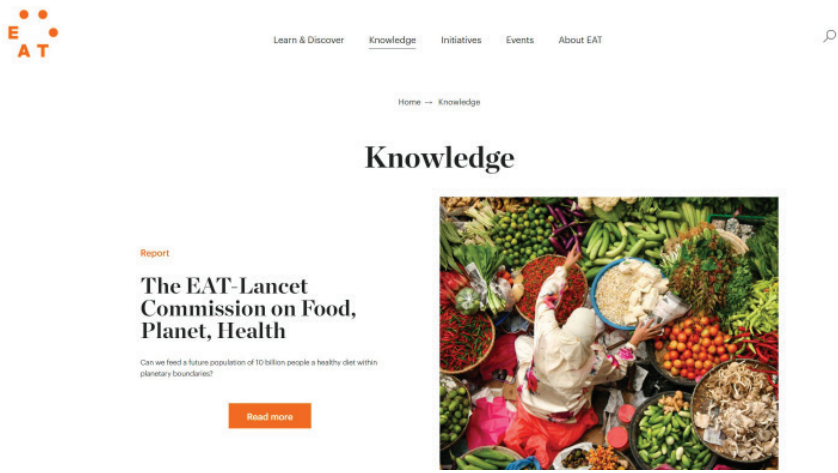

Figure 12.4. Screenshot: "Knowledge" from Eatforum.org.
Source: Printed with permission by Eat.org.

report largely avoids seeing food as culture and tradition (Nutrition Insight, n.d.; Harris 2019). Here, a feeling is conveyed that food is still important beyond a purely nutritional perspective and that the changes the commission intends at the same time highlight food as culture. The design itself means that text and photographs, or other visual illustrations, not only complement each other at one point but also enable a feedback process of added information and visual stimuli, something underlined by the static temporality of the media type where the user creates a second dimension of medial time perception and can choose either to rush through the material for a quick overview or to linger at selected points.

If you click on "The EAT-Lancet Commission on Food, Planet, Health," new choices appear: "The Science," "The Planetary Health Diet," and "The Commission." In the category "The Science," users can read a popular science summary of the scientific report (also available in its entirety). The summary is available in nine world languages in addition to English: Arabic, Chinese, French, Spanish, Russian, Italian, Portuguese, and Indonesian. "The Planetary Health Diet" is framed by an inviting pink vegetable smoothie topped with seeds and mint leaves, the food of the future in a more enticing form than fried insects. Clicking leads to an illustrative plate diagram that informs the user about the climate-friendly global diet of the future.

Further down the page are a number of so-called "Briefs" that are tailored to specific professional groups or themes: cities, farmers, food professions, health care, decision-makers, and the general public. Here users can zoom in on more concrete advice and discussions that are closer to their own interests and profession. In the report for the public, users can get background information and point-by-point advice on how to eat healthily and sustainably, a kind of condensation of the scientific facts in the report itself. At the bottom are links to lectures, videos, podcasts, and recipes that are relevant to the specific "brief" that the user has chosen. Finally, you can look at "The Commission," which creates transparency regarding how the organization is structured. In summary, "Knowledge" provides exactly what it promises, both general and more specific knowledge depending on a reader's interests and background, all in an inclusive way and with different levels and genres of scientific knowledge delivery.

The "Initiatives" category focuses on how this knowledge should be transformed into action and agency. Users are greeted by the following text: "In order to translate knowledge into scalable action, EAT has initiated partnerships, programs and projects to reach specific sectors that can bring about change. Our programs and partnerships currently in place or under development focus on business, individual countries, cities, chefs, and children." Here there is concrete advice on how to implement the report's conclusions about a sustainable food culture in cities, among decision-makers, in the economic

sector, and in agriculture. Further down, clearly marked by the consistently white background being temporarily replaced with a black one, are initiatives for how children and young people can be activated and participate.

Blade Runner 2049

Film as a media type naturally has a different goal and target group from a web page, and even though both media types are audiovisual, films' intentions are often, among other things, to create a strong audiovisual experience with a special sensory impact. This is particularly noticeable if the technical medium of display is a cinema or equipped home theater rather than a laptop screen, tablet, or mobile phone. However, the latter technical media of display create better opportunities for interaction, as it is easier to move back and forth in the film, pause, and change the display speed on mobile devices. This interaction, at least theoretically, is similar to what can occur when using a web page. Contextualized media specificity thus plays a large role in how we do our media analysis—but since *Blade Runner 2049* was primarily created for the big screen, it is justified to relate to its aesthetic qualities as a cinema film. Alexa Weik von Mossner is one of the researchers who has shown the great potential of film as a media type to create embodied and emotional experiences which have a significant influence on our stances on climate and climate threats in films within the climate fiction genre (von Mossner 2017, 3).

The main character, K., who is created after the ecological apocalypse, should not value food nostalgia, but he is probably programmed with a memory of how food was eaten and served before the destruction. For a contemporary viewer, though, the scene becomes a potent commentary on a contemporary food discourse, and at the same time creates a time tunnel that runs backward in the film's otherwise dystopian world-building. As a spectator, viewers are drawn not only into the action but also into the grey, depressing, post-apocalyptic mood, which is symbolized by the food that is just nutrition and nothing else (this is enhanced by the contrast with the projected steak) and contributes to the film's dystopian tone. Viewers can react in two different ways: seeing the link to the food culture of the 1950s as a reminder that the Anthropocene (or Capitalocene) condition is ultimately an effect of the very culture that is being projected (patriarchy, stereotypical gender roles, sexualization and objectification of women, and industrialized, non-climate-friendly food), or seeing the brown mush as a warning that our food culture must change drastically. Perhaps these two interpretations can be mixed, but regardless of which view viewers take, food as culture is problematized in a sustainable future perspective in an engaging, emotional way.

Food is strongly associated with identity. Claude Fischler demonstrates this relationship when he examines the role of food in identity creation and for society at large:

> Food is central to our sense of identity. The way any given human group eats helps it assert its diversity, hierarchy and organization, and at the same time, both its oneness and the otherness of whoever eats differently. Food is also central to individual identity, in that any given human individual is constructed, biologically, psychologically and socially by the food he/she chooses to incorporate. (Fischler 1988, 275)

The scene in *Blade Runner 2049* presents a future scenario where food is only sustenance but where the culture around it is still active and meaningful, albeit in an artificial way. That food has turned into nourishment and is no longer a sensual experience is made clear in a scene on a protein farm earlier in the film. K. asks the protein grower what is boiling in a pot and is told that it is garlic, for private use. "Is that what smells?" K. asks—he has never tasted garlic.

The focus of this analysis is food cultures, but it is worth pointing out that the representation of future food encased in a strongly contrasting nostalgic shimmer forms part of a larger anthropocentric context: a swan song about a lost humanity. The film engages with cultural, material products that have lost their physical, emotional, and intellectual value: books, music, and cultural practices. Just as the food image projected over the mush is nostalgic but at the same time clearly an emblem of unsustainable and unhealthy food, the abandoned Las Vegas in the latter part of the film forms a complex image of the intersection between what is both fantastic and destructive in humans. The remnants of human civilization and culture, no matter how commercial, reprehensible, and repulsive (casino gambling, prostitution, drug abuse, violence), still appear as human and are therefore missed. In this former desert city of youth and luxury, choppy holograms of Elvis Presley and cancan dancers in dusty luxury hotel rooms remind us of a lost world. The film shows our inherent longing for the authentic, regardless of its ethical value.

STEP 3: COMPARISON AND FURTHER PERSPECTIVES

As a conclusion to the analysis, we return to the central question for the comparative intermedial ecocritical reading: How are ideas about future food cultures represented and what ability do these representations have to influence or activate people to change their attitudes and thus reach for a more sustainable food culture? The first and second steps of the analysis have shown

similarities and above all differences in how these two media products relate to the question. Now it is time to summarize these.

Eatforum.org has several affordances, as shown above, that are specific to a web page: interaction, freedom of choice, and multimedia qualities. This means that in a compelling and inviting way, Eatforum.org includes the user who can delve into the scientific basis behind the meaning of a changing food culture as well as engage with food and sustainability on several different levels. Eatforum.org does not shy away from the truth about the climate threat, but ultimately the website presents a hopeful view that change is possible if we engage globally, in solidarity, and collectively. However, the website does not deal with some complicated questions about future food cultures; for example, the user doesn't get a clear picture of what a future food culture might actually look like, nor is food and its relationship to culture and tradition significantly problematized. There, the affordances of climate fiction (in, for example, novels, poetry, podcasts, and games) have a great advantage, in audiovisual media in particular through their possibilities for advanced multisensory world-building.

Eatforum.org, however, has a greater opportunity to create agency and activism through its interactive possibilities such that users can gather knowledge at their own pace, have audiovisual experiences, and be inspired to take part in initiatives on many levels. A scientific base that also shows the pragmatic possibilities to influence our climate in a positive direction gives a feeling of hope and community. Eatforum.org is also inclusive of people from different backgrounds. On the other hand, knowledge, culture, and tradition are not problematized, and the site starts from an established thesis and scientific direction. It therefore risks being overly didactic and trying to speak for those who are already initiated in the knowledge of the climate threat.

Blade Runner 2049 offers a different, more critical, ambiguous, and open approach to issues surrounding a future sustainable food culture. It does so by creating an emotional experience by virtue of the film's audiovisual possibilities and the qualified Hollywood narrative, which is both more powerful and more critical than that of Eatforum.org. Climate fiction, found in a variety of media types (literature, film, games), has the ability to portray both hopes and fears about climate change in a deeper and more empathetic way than scientific prose because climate fiction often examines what daily life might look like in a future scenario (Andersen 2020).

Blade Runner 2049 is post-apocalyptic fiction, which affects how food is represented. In post-apocalyptic fiction, the disaster has already occurred, and people have had to change their cultural behaviors to fit completely new conditions. The speculative side of the vision of the future painted in *Blade Runner 2049* stands in stark contrast to the rational, balanced, and scientifically grounded communication of the climate threat in Eatforum.

org. In fiction, one is allowed to exaggerate, but the film scene that we have looked at more closely is in no way alien or incomprehensible but is rooted in a potential real and near future. Significant elements of the film such as artificial intelligence, avatars, digital manipulations, and protein factories are already a reality in 2023, on a larger or smaller scale. Finally, *Blade Runner 2049* places the theme of food cultures in a wider discourse about what constitutes the human and the authentic, for better or for worse, and thus the film draws the viewer into larger philosophical and existential questions than Eatforum.org.

CONCLUSION

The film's appeal stimulates the viewer to reflect on their attitude to food, but as a media product, the film itself is unable to channel these feelings and commitment in a targeted and concrete direction. The experience of *Blade Runner 2049* can therefore be considered as fleeting, without the possibility of contributing to any agency or changed view of sustainability and food, even if the scene itself critically examines food culture from a future perspective. It is worth mentioning that empirical studies of how people react to climate fiction have shown, albeit in preliminary studies, that although commitment to environmental issues does indeed increase measurably after encounters with fictional texts, that the effect is relatively temporary (Malecki et al. 2018; Schneider-Mayerson 2018; Schneider-Mayerson et al. 2023: see also these authors' contributions in this anthology). There are no studies of effects over a longer period of time. Perhaps it is the case that a combination of these different media expressions (web page and film) is desirable in a more holistic view of environmental issues. Such a combination also opens educational opportunities to work with different media in parallel to convey science, knowledge, emotions, and commitment in an ecocritical context.

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Chapter 13

Ecocritical Spatial Analysis Methods

Camilla Brudin Borg

The story of a walker's journey through the physical world and through life is a well-studied motif within ecocriticism. Walking organizes the narratives of folktales, allegorical medieval poetry, pilgrim stories, and romantic essays (Solnit 2002). Nature writers, such as Wendell Berry and Gary Snyder, along with the early bioregional movement, often focused on the significance of place in searching for an ethical approach to the environment, arguing for the importance of strengthening the connection to the local place (Buell, Heise, and Thornber 2011, 420). Today there are good reasons to take a new look at methods with which to examine place and space when literary authors are also seeking new ways to embrace the climate change emerging on a planetary scale during this Anthropocene age (see Billing in this anthology; Ghosh 2016).

This article focuses on modern stories of walking and on new ways to use the analytical tools *space* and *place* that have become available through ecocriticism's interdisciplinary contact with geocriticism, sociological studies of spatiality, feminist new materialist ontologies, and eco-narratological perspectives. It has been translated from a Swedish article published in *Ekokritiska Metoder* (2022) and slightly revised.

PLACE, SPACE, AND MATTER

In physics, space was long regarded as a "container" in which bodies move. Before the 1950s, a similar definition was used in geographical studies, in which space and spatiality simply referred to the "room" where events occur.

As later developed by the geographer Yi-Fu Tuan (1977), spatial analysis became "the explanation of spatial organisation," and the abstract *space* was distinguished from the specific location *place*. Place and space subsequently became crucial concepts in the sociological research of the 1970s, including cultural geography and early Marxist analyses of social space (see, e.g., the work of Henri Lefebvre, David Harvey, Edward Soja, and Fredric Jameson). What then was termed the "spatial turn" influenced post-structuralism (see, e.g., François Lyotard and Michel Foucault), post-colonialism (see, e.g., Franz Fanon, Edward Said, and Homi Bhabha), as well as feminist studies (see, e.g., bell hooks, Gloria Anzaldúa, and Doreen Massey). The exploitation of nature and the planet has deep roots in the Western philosophical tradition extending back to Cartesian rationality and in the grand project of modernity (Tally and Battista 2016, 5). Given that one of ecocriticism's tasks has been to illuminate unproductive ways of perceiving and relating to the world (Garrard 2014), the environment, and the planet, ecocriticism can also be seen as a branch of this critical tradition.

In literature, place and space are the narrative's spatial dimensions along with other elements, such as organization, as the structure of plot. Also, metaphors and symbols can indicate spatial relationships. A *place* is a designated, named, and meaningful part of the world, for example, "London" or "the crossroad." Place can be directly experienced through the senses: It is concrete and often tied to structures that create a sense of security. *Space* is usually regarded as a more abstract category with some relational significance. Space can refer to the gap between certain positions in geography, the gap between characters in a narrative, or as space in a particular scene. Tuan suggested that space becomes a place when there "is a pause," a resting eye, or where something becomes the subject of a story (Tuan 2001, 1–6; see also Tally 2012). Thus, a place is a piece of space that has become unique, distinguished, and distinct.

For the sociologist Henri Lefebvre, place and space are continually generated through social construction. Here, space is fundamentally a cultural product, and Lefebvre distinguishes between *perceived space*, *conceived space*, and *lived space*. These concepts distinguish 1) the space we experience through our senses and bodies, 2) the conceived space that we create through images or mental and conceptual constructions, and 3) the lived or inhabited space, which is a merging of experienced and conceived space (Lefebvre 1991, 38–40). Lefebvre's categories are based solely on *the human* agent of perception as the one who experiences and creates. From an ecocritical perspective, this kind of culture-focused, anthropocentric–constructivist way of understanding the relationship between humans, place, and space has been challenged by several currents within ecocritical practice that assume, in various ways, that the world in its entirety also includes nonhuman agents that

also contribute to storytelling and the production of meaning. New materialist feminists started to explore the *intra-action* of "culture, history, discourse, technology, biology, and the 'environment' without privileging any one of these elements" (Alaimo and Hekman 2008, 7; see also Barad 2008). Material ecocriticism studies how the human and cultural are intermingled with the more-than-human world, using concepts such as "material narratives" and "storied matter" (Cohen 2014; Opperman 2014, 6–7) or investigating the co-creation between language and the world as in biosemiotic perspectives (Wheeler 2011).

TWO WALKING STORIES

When an ecocritical analysis studies depictions of literary place and space, it explores possible ways of relating to the world. In older literature, a spatial analysis can serve the purpose of uncovering historical environmental knowledge and ontologies. This chapter will demonstrate some ways of investigating the meaning of place using *an eco-narratological spatial analysis*, *a spatial mapping method*, and *a space-oriented metaphor analysis.* Those methods will be applied to two similar autobiographical texts that both narrate a long journey on foot. However, they are set in two very different environments (places), so the two stories unfold in very distinct types of narrative spaces. This chapter will demonstrate how this comes to matter in ecocritical analysis. Finally, we will see how *literary field studies*, i.e., when the researcher straps on the walking boots and follows the narrative in the "real world," can be conducted as a way to detect the text's co-creation with the external world. Can such a movement further contribute to the ecocritical examination of narrative spaces?

In the German comedian Hape Kerkeling's book *I'm Off Then: Losing and Finding Myself on the Camino de Santiago* (*Ich bin dann mal weg: Meine Reise auf den Jacobsweg*, 2009), the protagonist narrates his journey along the traditional medieval pilgrimage route to Santiago de Compostela (hereafter, "the Camino") traversing the rural landscape of Northern Spain. Kerkeling has experienced burnout and is searching, somewhat hesitantly, for some kind of connection to God; most importantly, he's attempting to find a way back to himself.

In Cheryl Strayed's *Wild: From Lost to Found on the Pacific Crest Trail* (2012), the narrator, Cheryl, embarks on the challenging Pacific Crest Trail (hereafter, "the PCT") that extends through the entire western United States from the Mexican to the Canadian borders and through mostly "natural" and "wild" surroundings. She is dealing with intense grief after losing her mother

to cancer, but she too has lost her way, and the hike becomes a means to break free from destructive patterns and to discover a new path forward in her life.

The choice of stories is based on the similarity of the two plots, in which lost souls set off into unknown terrains to seek themselves. From a classical (structuralist) narrative perspective focusing on plot, focalization, and the existential theme, these two stories appear quite similar. However, distinct differences also become evident when we closely examine the environments and narrative spaces that the two hikers traverse.

These environments have been extensively studied by American and European early ecocriticism. An interest in walking, as evident in the French and British romantics (e.g., Jean-Jacques Rousseau and William Wordsworth) and in the journeys into "the wild" of the American transcendentalists (e.g., Henry David Thoreau and the nature enthusiast John Muir), created, in somewhat different ways, notions of nature. However, while European authors built on the idea of regional and pastoral environments outside the corrupt metropolises, American authors, philosophers, and ecocritics gazed toward the edge of (a colonizing) civilization into a wilderness that was imagined as untouched (Clark 2011, 25–26).

The concept of *wilderness* has therefore been extensively explored in American ecocriticism, where it has come to represent a place outside of culture where the self, often conceived as male, can gain insight, grow, learn, search for a truer self, and be reborn, and where freedom can be realized (see, e.g., Leo Marx, Lawrence Buell, and Mary Austen). However, these perspectives have been both problematized and criticized (Cronon 1996; Garrard 2012, 39–54), including from feminist perspectives (Kolodny 1975, 4) and in research with cosmopolitan viewpoints that critiques bioregional approaches and demands that ecocriticism switch its perspective from the local to the global (Heise 2008, 3–10).

The two selected hiking narratives occur in two distinctly different environments that revolve around a "lost" individual's personal quest to find themselves, here serving to illustrate some new spatial methodological possibilities within ecocriticism.

ECONARRATOLOGY AND STORIED SPACE

Narratology has recently made a comeback within ecocriticism with renewed studies of, for example, narrative, implicit authorship, focalization, unreliability, and heteroglossia, but perhaps most importantly, with new tools to investigate the spatial dimensions of the text (Herman 2002, 264; James and Morel 2020). *The spatial turn* has led to the emergence of concepts for examining the narrative spaces of the text, which aligns with ecocriticism's focus

on the physical environment (James and Morel 2018, 355). Geocriticism and spatial literary studies, the studies of geography through literature, are interested in "external things" such as space, place, and environment, much as ecocriticism is. Therefore, ecocriticism and geocriticism overlap to some extent, but while the motivation behind ecocriticism has been to improve humanity's relationship with its environment, geocriticism is more focused on how human narratives construct space (Tally and Battista 2016).

In classical, structuralist narratology, as exemplified by Gérard Genette (1980), the environment was treated as a kind of stage or (uninteresting) background to character development, plot organization, and temporal progress. In econarratology, however, it is crucial to understand how readers not only attempt to reconstruct "what happened" but also need to create a mental image of the narrated world, its logic, and its design to grasp the narrative as a whole. Instead of *histoire* (history), which, according to Genette, refers to the temporal order of the narrative's events, the concept of *storyworld* better captures the mental model that the reader creates of *what* and *where* and *why* (Herman 2005, 569–70). The storyworld is made of events and places that shape the reader's conception of the textual world in which the characters of the narrative live and move (Ryan, Foote, and Azaryahu 2016, 3). A storyworld, in part, serves as an external reference point outside the text and as the reservoir of experience of the external world from which the reader draws knowledge to construct a mental image of the storyworld. If the text states, "he entered the garden to have coffee," the reader likely activates their experience of a location furnished with garden furniture and a coffee tray, even though these details have not been mentioned. Thus, co-creation is already taking place. This readiness to fill in and co-create the text can also be compared to German reception theory's ideas of gaps or "empty spaces" (German *leerstellen*; Iser 1978) that literary texts encompass, which presuppose that the reader fills in and complements the narrative. In this way, a storyworld partly depends on the individual reader's experience, which, in turn, can be drawn from the physical world but also from intertextual worlds of stories and cultural discourses.

ANALYSIS

Cheryl Strayed and Hape Kerkeling both have used their own experiences of the environments along the hiking trails as the settings for their autobiographical narratives. In this way, it is a place-based literature set in distinct, designated places: on the American PCT and the Spanish Camino. Both narratives are driven by the progression of journeys along their respective trails,

and the environment plays a crucial role in the *order* of events and in the plots' spatiality.

Many guidebooks describe in what order and how far the hiker should walk each day on these trails. These distances are often measured for practical reasons. Both stories begin with the protagonist finding such a guidebook, and in both cases, this discovery becomes the impetus to set out into the unknown. Strayed writes: "I'd been standing in line at an outdoor store waiting to purchase a foldable shovel when I picked up a book called *The Pacific Crest Trail, volume 1: California* from a nearby shelf and read the back cover" (Strayed 2023, 4). Similarly, Kerkeling finds Bert Teklenborg's *The Joy of the Camino de Santiago* (Kerkeling 2009, 4). Neither of them is familiar with the places they are about to enter. However, after reading, the authors' expectations build about being able to reach a place where different conditions and rules apply in order to seek solutions to their problems. Both have a strong desire to take time out by changing their environment. The question is, what functions do these alternative places and spaces have, and how can they be analyzed?

The cultural and material spaces of the Camino and the PCT could be considered *heterotopias* in Foucault's sense in *Des espaces autres* ("Of Other Spaces," 1967 [1986]) as *created* and *creative* spaces that encompass *relationships*. By describing these relationships, Foucault argues, it is possible to define the function of the space. Heterotopias represent kinds of space that exist outside the "ordinary," each with its own cultures, mythologies, and distinct environments.

On the Camino, pilgrims even have their own passports to gain access to this "pilgrims' world." The passport (*credencial*) includes entry to special pilgrim hostels and to certain privileges, such as discounts at restaurants. The PCT is an extremely harsh wilderness trail where the conditions of nature dictate what is possible. This connection to both the cultural and the material thus influences the rules and relationships that will prevail in the stories' respective narrative spaces. These rules and relationships will be mapped below.

Spatial Mapping

A fruitful question to start with can be: Is there a map in the story? To create a spatial mapping of narrative spaces in the studied texts, a first step is to inventory the places that are passed through; to ask why they are mentioned in the texts, and then analyze what function they serve in the narrative flow. The main question is: How are the journey and storytelling organized?

In Hape Kerkeling's story, the walker follows the trail straight to the cathedral in Santiago de Compostela. He systematically covers each stage in a

manner closely aligned with the guidebook's recommendations. The steps run chronologically from cover to cover, and the chapters of the book are titled according to the stages of the journey. The book also includes a map of the places where Kerkeling has rested, emphasizing the story's use of geographical places. The narrative extends chronologically through the landscape just as the walker encounters it, so the movement in space structures the organization of the storytelling. The geographic map simultaneously creates a clear diary-like structure by placing the locations in a row. The diegetic level, describing how Kerkeling progresses on the Camino, can be called *the walking narrative*. It takes place in the narrative present and in a physical space with hills, villages, and resting places.

However, it soon becomes apparent that this narrative does not solely comprise the account of the outward journey. The narrative also makes regular *analepses*, i.e., backward-looking temporal jumps, into Kerkeling's memories, as philosophical and existential reflections are interwoven with memories of past events. These interrupt the narrative of the journey itself and also involve shifts to other places and other mental spaces, creating a parallel inner map. It thus becomes interesting to see whether these *analepses* have some kind of connection to the inner space, or to why and where the transition to this space occurs. We will come back to this.

There is also a map in Cheryl Strayed's narrative, although it's not as structured and schematic as in Kerkeling's case. She writes:

> If I had to draw a map of those four-plus years to illustrate the time between my mother's death and the day I began my hike on the Pacific Crest Trail, the map would be a confusing line in all directions [. . .] But those lines wouldn't tell the story. The map would illuminate all the places I ran to. (Strayed 2023, 28)

Strayed begins walking the trail toward Canada, attempting, by following *a marked* hiking path, to create "a straight line" in her own life. The function of the journey is clearly to find a new way. Her story begins with her mother's death and extends from the very beginning of the journey to its end at the Bridge of the Gods, the place where she achieves her internal goal: to rediscover herself. Again, two maps must be drawn: one external and one internal.

The storytelling thus interconnects the outer world in the hiker's present with their backstory and inner reality, memories, and history. The forward movement follows signs and markers in the external world. This world consists of natural environments, mountains, and forests but also other, more socially organized spaces such as the Camino's villages, restaurants, churches, and squares. Simultaneously, the walker roams mentally through their inner landscapes to search for clues to solving their problems. The next step in an analysis of narrative space and place will be to deepen our understanding

of the external spaces through which the protagonists move. What do these respective spaces look like?

The Camino consists of many different routes, all leading to Santiago de Compostela from different directions. The "Camino Frances," which Kerkeling walks, covers 786 kilometers across somewhat challenging natural environments, such as the passage over the Pyrenees, Galicia's mountains, and the Meseta Central's endless plains, but also through a cultural landscape that includes numerous historical sites tied to religious myths and miracle stories.

The Pacific Crest Trail (PCT) is a 4270-kilometer long-distance trail that traverses the national parks of the western United States, crosses high mountain passes in the Sierra Nevada and the northern Cascade Range, and passes through various biotopes such as deserts, mountains, and forests. There are few places to resupply along the trail. Those hiking the PCT must plan their needs in advance and either order or send packages of food to themselves at different stations along the trail. These locations indeed become significant points in the narrative as Strayed occasionally encounters other hikers there. However, the most dramatic scenes in Strayed's story take place between these points. They involve the dangers she faces in Arizona's scorching desert, attempting to cross the snow-covered passes of the Sierra Nevada, or struggling to extract drinkable water from a muddy pond. Thus, *Wild* depicts a journey through a hard and "wild" landscape. The function of the narrative space is apparently to surround the protagonist with challenges and adventures, using struggle and connection with nature to restore her lost identity. It portrays human vulnerability to the elements, survival, profound encounters with nature, and intense interactions with other species.

On the Camino, on the other hand, it's never far to a caffé latte, clean water, and a soft bed. Kerkeling interacts with other hikers in conversation, and it seems primarily to be a social and cultural space that he traverses rather than a natural space. His main challenge is how to enter this social space. He feels very lonely but at the same time struggles to share the camaraderie on the Camino, where he feels overwhelmed by the "all-too-human." Using Foucault's concept, we could say that he struggles to enter the heterotopia of the Camino.

However, when he reaches a valley beyond the village of Navarrete, where pilgrims have the custom of building small stone cairns and leaving memories and texts, he finds that the other hikers suddenly start speaking to him, uttering messages such as: "I made it, and you'll make it too!" (Kerkeling 2008, 59). Suddenly, he realizes he is not journeying alone and that there is a connection between him and the other pilgrims through their shared desires and dreams. This realization hits him hard, and he builds his own little cairn as a symbolic and material manifestation that he has now entered the pilgrim's

space. The capitulation is also a result of physical hardships, linked to the design of the external environment but also to the solitude he has experienced so far.

Strayed, on the other hand, encounters few other hikers. Instead, the PCT becomes a six-month-long encounter with other agents such as nature, weather, animals, and herself. The space she traverses is vast, beautiful, and demanding, but she feels like a temporal visitor in a more-than-human world. She has an encounter with a fox: They stare at each other for a moment, and then the fox casually walks away. "This was his world. He was as certain as the sky" (Strayed 2023, 144). In Strayed's story, stronger connections to the external space are progressively established. Plants start to speak to her about her mother and of her grief: "Inhaling it now, I didn't so much smell the sharp, earthy scent of the desert sage as I did the potent memory of my mother" (Strayed 2023, 59). She has sought out this remote natural space to connect with her inner self, and the portal becomes the natural world. The PCT we encounter in *Wild* echoes the classic American pastoral tradition and its notions of nature as a revitalizing space in which to escape the harmful influence of modernity, a place for epiphanic experiences, knowledge, and healing (Garrard 2012, 54). It has often been men who seek out "wild" natural environments for struggle, growth, and insights, which is why Strayed's book attracted much attention for featuring a *female* protagonist venturing into the unknown in the same vein.

In both narratives, the environments of the hiking trails seem to be crucial for the external experiences and for the protagonist's inner changes. Kerkeling and Strayed enter their respective unknown external spaces with open minds in order to learn and "see" their inner spaces from fresh perspectives. The external environment's function is to create a particular kind of attention that is transferred to the inner space of the hiker.

In summary, through mapping the narratives' spaces, one can ascertain that these are each contributing to different kinds of interaction between humans and the environment. In Kerkeling's story of the Camino de Santiago, he encounters a cultural space and is wrestling with relations with other humans; on the PCT, the struggling hiker experiences more direct contact with materiality and the more-than-human. The narrative function of both spaces is to provoke change, and it is evident that this change primarily occurs in the walker's inner space, prompted by the journey and movement through the external.

To extend the analysis further, the next step will be to apply *a spatially oriented metaphor analysis* to delve deeper into the associations to which the literary image of movement contributes.

Spatial Metaphors

A path is not always just a road; it can also be understood as a metaphor for the inner journey. Yet, it is also a literal path, especially in these texts that concern hiking, even when the narrative clearly refers to the metaphorical meanings of concepts such as *wandering*, *the path*, and *being lost*.

Nancy Easterlin (2012) has shown in *A Biocultural Approach to Literary Theory and Interpretation* that we must derive certain fundamental associations from our experienced world to understand metaphors, just as readers construct a storyworld from narrative time, space, and personal experiences. From a cognitive and evolutionary psychological perspective, in which the ecocritical metaphor analysis in this case is grounded, the metaphor can be viewed as a bridge or link between the world and language (Easterlin 2012, 171). Meaning is not produced solely by words, nor is it solely a cultural construction; rather, it is also generated from sensory experience rooted in the body (Johnson 2007, 11). In the metaphoric trope *to walk the path of life*, it is evident that "to live" is equated with the activity of "walking." This fuses our understanding of the activity of walking a path with our understanding of "living." The metaphoric trope *to walk the path of life* is a variation of *life is a journey*, depicting perhaps the most fundamental aspect of human existence, in which one "travels" or "walks" through life. Naturally, the figure assumes some familiarity with walking as an activity and experience (Brudin Borg 2020).

To proceed with the analysis, we can examine the two different trails and the various associations and knowledge we can link to hiking and to living.

The outward purpose of a hiking journey is often to reach a particular destination; the way to get there is to follow a specific path. In connection with walking, various *life* choices are likened to standing at a crossroads; the traveller's resources and talents serve as provisions for the journey, and development is represented by the distance covered. The metaphor of a journey thus transfers several different ideas and experiences from, to use Mats Rosengren's and the philosopher Chaïm Perelman's terms, *the source domain* (walking) to *the target domain* (life) (Rosengren 1998, 143–44; Brudin Borg 2005; 2020). The metaphor creates something that is identical to neither "the source" nor "the target," and thus allows a new creation to emerge that also will have the potential to break from the already known (Brudin Borg 2005, 25–26; 2020, 115–17). According to the biocultural and, in this sense, ecocritical understanding of the metaphoric function in the text, meaning arises between the sensory and the cognitive in interaction with the external environment.

In Kerkeling's and Strayed's books, the metaphoric trope *to walk the path of life* serves as a foundational structure in both narratives, and both narrators

are at first lost. However, since the hikes take place in two different concrete environments, on the Camino and the PCT, these two stories create conditions for different interpretations of the same theme. Below, we will explore how.

Lost

The metaphor *to be lost* is actually a variant of *to walk the path of life* depicting a divergence from the journey forward on the correct path. It's a cliché with deep literary roots in cultural history. When Dante Alighieri, for instance, in the opening of *Divina Comedia* ([c. 1308–1321] 2008, "Inferno," Canto 1), exclaims:

> Midway upon the journey of our life,
> I found myself within a forest dark,
> For the straightforward pathway had been lost.
> Ah me! how hard a thing it is to say,
> What was this forest savage, rough, and stern,
> Which in the very thought renews the fear. (Dante, [c.1308–21] 1867, 3)

The forest for Dante is an image of his having somehow lost his way in life. Dante's forest takes on a figurative and allegorical function but not solely. The dark, tangled forest of the opening of "Inferno" also speaks of the medieval fear of certain natural environments, and the spatial dimensions of the narrative gain a dual significance: forest *and* life. Elements drawn from the lifeworld and others allow us to understand the forest in a metaphorical way. This dual understanding can be used in ecocritical literary analysis to analyze *the fusion* of language and matter, manifested in narrative texts with metaphorical structures (Brudin Borg 2022; also see Lindbo's chapter on metaphors).

Dante is lost, and Virgil comes to his aid, acting as a guide. Both Kerkeling and Strayed are existentially lost, and while the guidebooks and the marked physical paths act as their guides, they also get literally lost. Interestingly, at the material level in the texts, the paths are spoken of as having their own agency to become guides through subtle communication with the hikers. This creates an understanding of the metaphoric usage in these works. On the Camino, Kerkeling notes that every time he loses the path, the butterflies disappear. He also finds that storks show him the way with their visible settlements on church roofs, where they also act as symbols and guides for birth and death (Kerkeling 2009, 84). Here, it seems that not only the Camino's yellow markers but also animals show the traveler "the right way."

Figure 13.1. "Keep going."
Source: Photo by Camilla Brudin Borg.

Kerkeling is a lost soul who seeks, walking to find his way in life. Throughout the Camino, he feels he receives messages, communications directed specifically at him, often in precarious or exhausting physical situations. When he has just bought his train ticket to Saint-Jean-Pied-de-Port in

France, the starting point of the Camino Frances, a billboard demands, "Do you know who you really are?" and he responds, "No, not at all" (Kerkeling 2009, 7). In Tardajos, he's ready to give up and stops to get a coffee. The barista's T-shirt reads, "Keep on running!" Kerkeling takes this as a message, downs his coffee, and sets off again (Kerkeling 2009, 101). In a bar in Shaugun, Kate Bush sings, "Don't give up / I know you can make it," which he also interprets as encouragement to keep trying (Kerkeling 2009, 161). Through these incidents, he increasingly views the Camino as a living entity, with the interplay between the messages on the path and the traveler taking on strong spiritual and religious meanings. Even Hape's God seems to communicate through the music in bars. In Léon, the loudspeakers sing: "See me in you!" ("Imaginas me en ti"; Kerkeling 2009, 186). Animals (butterflies and storks) act as guides, but cultural slogans also seem to be placed at precisely the right moments to assist the tired, lost walker along "the path of life." All these signs are narrative, guiding messages communicated *as if* they originated from a hidden agency within the Camino's storyworld, but it is difficult to determine whether it is the Camino, God, or perhaps just Kerkeling's exhausted brain that pieces these messages together.

Wild tells the story of a young woman who has lost both her footing and herself. As an attempt to find her way back, she changes her last name to Strayed before setting out:

> Its layered definition spoke directly to my life and also struck a poetic chord: *to wander from the proper path, to deviate from the direct course, to be lost, to be wild, to be without a mother or father, to be without a home, to move about aimlessly in search of something, to diverge or digress.* I had diverged, digressed, wandered, and become wild. (Strayed 2023, 96–97)

Earlier she commented: "It took me years to take my place among the ten thousand things again. [. . .] I would suffer. I would want things to be differently than they were. My wanting was a wilderness [. . .]" (Strayed 2023, 27). It becomes clear here that the "wilderness" mentioned in the quotation is both the physical space where physical pain that soothes and shapes is to be found, and also an "inner wilderness" where Strayed has become lost within herself.

She knows little about the world she's about to enter, so she has brought both the guidebook and June Fleming's *Staying Found* (2001), which describes how to use maps and compasses to avoid getting lost. In her well-stocked pack of survival gear, there is of course a compass but also a first aid kit, flashlights, extra lights, and more protective equipment. Strayed has evidently tried to prepare herself extremely well "to stay found," and this excess of items speaks of a fear of losing herself in the physical environment. All this survival equipment is meant to be helpful on the journey, but it turns

out to be a burden when the backpack ends up being so heavy that she can barely lift it. She starts calling it "the monster," making the backpack into a metaphor for her destructive emotional baggage.

As we have seen, the texts establish a clear connection between the material level (source/trail) and the semiotic level (target/life). Here, we can study how materiality and linguistic construction *intra-act*, which physicist and professor of feminist studies Karen Barad would describe as the co-creation of discourse and matter in the semiotic/material where humans are part of the world in its becoming (Barad 2008, 132, 139). We have observed how the hikers' quests to find their way are shown to have slightly different conditions because the hikes take place in different kinds of places and spaces. This affects how the metaphor *to walk the path of life* weaves together the material and semiotic levels.

The Text and The World

Both the PCT in the United States and the Camino in Spain are existing places. Making a direct comparison between a "real" place and a narratively created place allows us to investigate what agencies in the material environment impact the storytelling. Here, if possible, the ecocritic can visit the place depicted in the fiction. This can be done to gather knowledge about the environment with the researcher's own senses. It is important to look for patterns: First, we investigate patterns dependent on narrative space; then, we map patterns in the external environment that could correspond to the depicted phenomena. The latter must, of course, pass through the observer's perspective and senses, so the intention is not to capture the "true" image of the Camino. Rather, we want to deepen our understanding of the impact of space and places on the narrative. This is a contextualizing (mobile) method.

Drawing Maps in the Exterior

A contextualizing method can, on one hand, be based on textual studies, the examination of topographic maps, and guidebooks' descriptions of the different conditions of the stages of the journeys. If we concentrate on the topographic and environmental aspects of the Camino, for example, the initial "hard" part, when Kerkeling walks over the Pyrenees, seems to provoke a series of reactions that appear to be triggered by the landscape's topography and character. He speaks repeatedly, especially at the beginning of the journey, about physical pain and the struggle not to give up. He is untrained, it's tough, and he hurts everywhere. In guidebooks and in the oral Camino tradition, the first part up to Burgos is often considered to be the part of "the body." After that, the Meseta Central plateau, with its endless wheat fields,

stretches out between the cities of Burgos and Léon. This part is referred to as "the path of the mind." Here, the pilgrims internalize the monotonous landscape. In Christian mythology, this part is believed to prepare the pilgrim for deeper spiritual experiences. The third part from Léon to Santiago de Compostela is seen as "the path of the spirit." This stage goes through Galicia and is described as a place where the pilgrims can find excellent opportunities to strengthen their faith before meeting the apostle at the end of the journey (*Codex Calixtinus*, 2011).

The topographic structure of the Camino therefore seems to tell of a connection between the external hiking path and inner experiences. Kerkeling is influenced by the conditions of the different parts. He suffers physically in the first part, addresses his social phobias in the middle section, and he and his fellow hikers are tested a bit more during the last part of the journey (Kerkeling 2009, 310–315.). Through contextualizing the narrative within the topography and the character of the landscapes, we can discover patterns that the topographic environment seems to share with the progression of the plot. This is a kind of co-creation in which the physical environment seems to provoke a certain type of storytelling. Even if we want to explore how matter co-creates storytelling, it can be difficult to fully verify how this co-creation occurs by studying the text alone. It is also, however, possible to supplement reading in concrete ways to investigate the intertwining of the narrative and the world.

Field Studies

Another method is to follow in the footsteps of the author and personally explore the place described in the work. Such field studies can be based on ethnological methods, such as *observation*, a method in which the researcher follows an object—a thing or an activity—to see how it moves between different places and cultural contexts, as it acquires new meanings, forms, and values. In *shadowing*, in contrast, one or more people are followed (Czarniawska 2007). The researcher can also conduct *participant observation*, which involves the researcher participating in the activity being studied—in this case, hiking.

In geocriticism, specific methods have been developed to tease apart the various relationships that could exist between the fictional narrative world and the physical world. Bertrand Westphal, the founder of geocriticism, was interested in how place (in the world) is created through literary descriptions (place in the text) and defined a range of complementary methods with which to study this relationship. First, researchers can use *multifocalization* by studying many different texts and sources to shed light on the subject from multiple perspectives. These texts create a polyphonic chorus of statements

that collectively provide a more complex image of the place than that created by any individual work. This method can be combined with a *polysensory* investigation that activates not only the researcher's vision (which is usually relied upon) but also how place is created through hearing, touch, smell, and taste. Finally, *text-archaeological excavation* can be applied to highlight the place's historicity and ongoing social construction (Prieto 2016, 23–25).

However, while geocriticism and Westphal's methods aim to study how texts and other cultural statements create place, we can also observe to what extent the place, a particular landscape, the more-than-human, and the environment also participate in creating the literary depiction of the place. This is more the task of the wandering ecocritic, but we can still use Westphal's method if we reverse the direction. In other words, we use the place to study the text.

By being on site, the researcher gains direct, self-experienced, emotional, multisensory, and physical knowledge that may not always be conveyed directly through storytelling. Through conducting site observations and personally experiencing the space depicted in the narrative, aspects of the text that are implicit or difficult to discern without insider knowledge can become clearer and possible to interact with and expose. Remember that metaphors presuppose that the interpreter can make associations with conditions related to the relationship between "the source" (*the path*, here the Camino and the PCT) and the "target" (*life*).

To gain knowledge of how material reality co-creates pilgrim mythologies (butterflies, signs, topography, monotony, and pain), the researcher can study the intersection between text and world and expand their own polysensory reservoir of experiences, for example, of northern Spain: its vistas, smells, and how it feels to sweat over the Galician mountains. If the researcher is present in the environment that the text describes, the material world and the text's images of the material surroundings can be read together and create conditions for layers of analysis in storytelling that are related to both these levels. Therefore, researchers who, in line with new materialist studies, truly wish to expose the co-creation of nature and culture can advantageously attempt to follow in the author's footsteps—in cases in which this is possible. Some literary works contain entirely fictional places that cannot be visited, but autobiographical works still offer this possibility.

The method of following in the author's (or literary character's) footsteps, according to a geocritical spatial method, has been used by Lisbeth Larsson in *Walking Virginia Woolf's London* (2017) to explore the spatial layers of meaning of narrative space in Virginia Woolf's *Mrs. Dalloway* (1925). Larsson systematically walks to the places mentioned in the novel in the order in which they are presented and becomes aware of a series of monuments, squares, and parks that bear witness to a colonial demonstration of power.

Many of these monuments still exist in London today. The fact that they are mentioned in the novel also gives them a narrative function, especially the historical function indicated by Westphal. The observations of the walking researcher are combined with historical facts and then subjected to a thorough gender analysis. It would seem that an important theme of the novel is the incommensurability of modernity and the decline of the British Empire. Larsson can, with her own walks, offer new creative solutions to a classic interpretive problem in *Mrs. Dalloway*.

The walking researcher will, however, need money, time, and physical ability. Walking the entire Camino takes about five weeks, while walking the entire PCT takes about six months. In 2017, I walked the *Camino de Frances*, in the footsteps of Hape Kerkeling and other pilgrim authors, with a notebook in hand and senses on high alert searching for repetitions, patterns, and clues to deeper connections between the landscapes of the Camino and the story's design. The places highlighted in Kerkeling's book, such as the challenging part over the Pyrenees, the passage through the Valley of Silence, and the various villages and churches mentioned, are now experiences I have had firsthand, enriching the storyworld of Hape Kerkeling's narrative.

Walking the Camino felt like stepping into a world of narratives. The trail has a long cultural history: Every village is associated with myths and religious legends as well as modern stories created by today's pilgrim literature and oral tales, like the one about the butterflies. Dogs also appear in surprisingly many Camino stories. Probably initiating the introduction of dogs into the intertextual eco-chamber is the large black dog that attacks the protagonist in Paulo Coelho's *The Pilgrimage*, where it can be interpreted as a demon or challenge on the spiritual quest (Coelho 2005, 95–96). In Kerkeling's story, several dogs also appear, but in this narrative, they are helped and taken care of. When I walked along the Camino, I noticed there not only were many dogs but also numerous iconographic depictions of the patron of dogs, Saint Francis of Assisi. The dog seems to be not only intertextual but also intermedial and frequently literally manifested.

On the Camino, the pilgrim also encounters many depictions of Saint James. Sometimes he is portrayed as *Santiago Peregrino,* "Saint James the pilgrim," the helper, the fellow traveler. He has also been mythologized in several other roles and guises, including *Santiago Matamoros,* "Saint James the Moor-slayer." There is also a constant encounter with the image of *Santiago Matamoros,* seated on his white charger with a heap of dead Muslims under its hooves, it fills the narrative space of Camino Frances with political undertones and narratives of the dominance of Christian culture (Figure 13.2).

One story that mythologizes Santiago Matamoros takes place when the Iberian Peninsula was under significant pressure from Muslim rule between

Figure 13.2. "Santiago Matamoros."
Source: Carlo Raso, Flickr, Creative Commons Attribution-Share Alike 4.0 International license.

711 and 1492, and the discovery, or perhaps the invention, of Saint James's tomb in Galicia in 813 served a timely and strategic function to concentrate the forces of Christianity and their attention on this western land when it was facing the threat of seemingly invincible Muslim armies (Frey 1998, 13; *Guide to Santiago de Compostela* 2011, 15). In those early mythological stories, it is said that Saint James appeared in the dream of King Don Ramiro I when the city of Clavigo near Logrono (which lies along the Camino de Frances) was under siege and subjected to a demand to deliver a hundred young virgins as tribute to the Muslims in 844. In the king's dream, Saint James promised that he would help the king if the Spaniards met the demand with armed violence. With immense losses, the story goes, they eventually won the battle with the aid of Santiago Matamoros.

The saint is said to have materialized on a white charger, carrying a white standard, wielding a shining sword, and assisted by a great host of angels (*Guide to Santiago de Compostela* 2011, 12). Historically, it is doubtful whether this battle ever took place, but the narrative is politically effective, impactful, and didactically clear—the strongest divine presence is on the side of Spain—a story that justified Spain's cause (Mullen 2010).

In the many small villages along the Spanish route, the pilgrims also encounter a large number of churches. Growing up in a Protestant country, I was used to churches with stark and functional spaces for religious practice. The encounter with Camino's opulent, gold-draped, iconographically embellished, and large churches and cathedrals highlighted other associations along the pilgrimage route. The overflow of decorations, the gold needed to finance the design of the religious environment of the Camino, would have been impossible without the Spanish conquests. Thus, walking the route also awakened me to the colonial narrative, materializing the story of human dominance over other ethnic groups, cultures, and nature.

When Kerkeling believes that he is receiving cultural or divine messages along the entire route, such as "See me in you!" these religious words take on a slightly different resonance, pointing to colonial roots, and toward anthropocentrism and human dominance. However, the "real" context is not used to explain the text: It is not an example of naïve contextualism (Felski 2011). Rather, this embodied method is a physical way of engaging with and questioning the studied text and using the on-site perception and the senses to seek deeper meanings and connections. Using field-obtained notes, the researcher can enrich their experiential repertoire with sensory and material impressions, creating starting points that later can be further processed and lead to new research insights. In my case, the observations of the many traces of colonialism on the Camino de Santiago could serve as a starting point for further explorations using, for instance, postcolonial ecocritical methods to investigate how pilgrims' narratives interact with the historical traces of the path.

Some examples of questions that can be used to support one's own field studies are: How do the places in the story relate to the chronology of the narrative? What functions do these places serve, and what concept or idea about the surrounding environment does the story express? Are there any discrepancies when the text's environment is compared with the world? What kind of knowledge does the researcher's own senses provide about the environment? It is also important to include meta-reflections in one's studies to problematize how the researcher has sorted their impressions. With field studies as a method, repetitions and recurring patterns can be observed and compared, in the text as well as in the world.

Through ecocritical spatial studies, one can investigate literary spaces and analyze how storytelling creates and presupposes a storyworld where, apart from human agents, other forces are in play. It is also possible to deepen one's understanding of how texts use metaphors to create a more complex image of the connection between interior and exterior space, between humans and materiality. Finally, the study of literary spaces can, in some cases, be advanced and deepened with field studies.

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Chapter 14

Storying Exposure with the Transversal Methods of Ecocritique

Cecilia Åsberg

The words we use matter. Philosopher Ludwig Wittgenstein argued even that the limitations of one's language constitute the limitations of our thoughts and thus the limitations of our world (Wittgenstein [1921] 2014). I think he was slightly wrong here. There is more to the world than what we can put words to, or even fathom, with our limited human senses. Yet words matter and correlate to worldviews, to ways of living. Together with visceral (and other bodily) reactions, chemical pathways, collective emotions, and whole social imaginaries shaped by conventions of seeing, knowing and storying the world (and the subject positions those in turn enable at the level of society), *words* very much do give form to our social fabric—and to the more-than-human world as well, as many eco-critical scholars have pointed out (Alaimo 2007; 2010; Iovino and Oppermann 2014). Strung together into texts and contexts, in the two term's widest possible sense, the way we use words, conceptions and categorizations have materializing, reality-producing or performative functions. It matters what stories tell stories, stated Marilyn Strathern (1992, 10), a feminist anthropologist of science in the 1990s. Building on that embrace of storytelling, Donna J. Haraway (2016a, 12), famously continued: "It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters . . . , what thoughts think thoughts, what descriptions describe . . . It matters what stories make worlds, what worlds make stories." Put simply, wording is a conduit of worlding in the feminist perspectives of mutualism, responsivity, more-than-human humanities, and material-semiotics that I follow on in this final chapter.

We live in troubling times in need of multiple approaches and versatile research. The climate crisis is no longer a future prospect but is unfolding before our very eyes, crossing boundaries and CO_2 limits of all kinds (Rockström et al. 2009). Rising temperatures, melting polar ice caps, flooding and wildfires wreak havoc with increasing frequency. The most vulnerable peoples, those of racialized and feminized poverty and a long legacy of exploitation in the Global South, are invariably hit the hardest. Exploitation and extractivism seem out of bounds, no limits to growth accepted (cf. Stengers 2015). In addition to increasing mass-movements of migrants (human and nonhuman) in the world, to income inequalities and global polarization, we see also a resurgence of white nationalism, right-wing populism and wars, horrible wars. The troubles of the world today respect few boundaries; they save neither bodily, national or disciplinary integrity. With this background I simply argue here for the bridge-building, co-existential and co-creative affordances within and alongside ecocriticism as a more-worldly form of storying exposure.

FACTS, FIGURES, AND FANTASY

In light of a slow societal awakening, or a political unwillingness to absorb facts and numbers describing environmental change and biodiversity loss, perhaps images and words have more power to story the world for us than numbers do. Evidently it is not the expert's facts or scientific numbers, such as temperature or pH levels, degrees of warming or glacial melt, but rather the words and imagery around them that sway public opinion and politicians' handling of the nested crises of ecology, technology and democratic culture. *Storied* numbers make a lot more sense, as in the case of the world trying to stay below the 2-degree Celsius goal.

The way we story the world with words (and numbers) is political. Stories can be performative at the ontological level of worlding. They have the capacity to move us, in time and place, affectively, to surprise and to convince us. Stories of science, arts and advocacy can act as cultural linchpins, connecting us to positions of empowerment or feelings of disempowerment, enable, or disable, change in the world. Stories can put us in place, situate us amid changing ecologies, or *bring us elsewhere*, to different, possible or impossible worlds. Expanding our imagination of the thinkable or focusing our attention to detail, stories make us "go visit" (as Hanna Arendt called it [1989, 43]), estrange us from homely domains, thicken and enrich our experience of the local here and now. The well-known *transformative power* of storytelling has been the pinnacle of decades of ecocriticism (and other forms of environmental arts and humanities), as the literary and cultural study of

how nature gets described, imagined and narrated in relation to modern environmental problems, climate change and loss of biological diversity.

Despite the bombardment of climate science facts into societal consciousness, the dry figures of science (and its negotiations of measurements into facts) seem to not quite manage to create broad engagement, to sway politics fast enough. Evidently, facts cannot bridge divides in an increasingly polarized society; for this, transversal moves of "shifting and rooting" perspectives are needed (I will return to this as this whole book provides a plethora of such affording approaches).

The expert's top-down facts on, for instance, the vast, general and generic human impact on climate, biology and geology do not easily change society's individualized horizon of lived exceptionalism, and they do not take us out of our filter bubbles. Facts and numbers, like images and slogans, rely on contextual storytelling as a form of community-building. That is how they gain their rhetorical traction, to sway whole societies, by creating a sense of belonging, an imagined community of affected knowers. After all, humans are social animals. This does not mean that ocean pH levels, carbon dioxide emissions, degrees of global warming, units of melting ice, amounts of PFAS contamination, or other scientific facts are not reality-producing, convincing or lack political power. Quite the contrary (see the chapter by Małecki and Schneider-Mayerson on empirical eco-criticism). Science is after all also a storytelling practice (Haraway 1989, 4). It has a societal status, the power and (very gendered) authority to explain things for us that today widely supersede the arts and humanities. Add to that, most eco-critics cherish, and themselves practice, systematized scientific methods, science facts and exegesis. (And among the exceptional storytellers of scientific eco-criticism, I would count *bone fide* marine biologist Rachel Carson [cf. Westling 2014], speaking to the arbitrariness of divides into arts and science, fact and fiction). However, scientific narratives as we encounter them in everyday media, as scientific outreach, have the communicative limitation of being focused on framing, managing, and delivering known and measurable units. The vast unknown or immeasurable impacts, the wonders of life, the largely incomprehensible scales and magnitudes of times and places, communities and peoples affected by one another are left out of, or rendered faceless by, the scientific explanatory model. That mess of existential variables is left for us (mortal consumers of science communicated) to imagine and make sense of by storying science, ourselves or by critical scholarly means. Imaginatively, we fill in the blanks with concerned speculations of emerging environmental exposures or encounters with weird and estranging future ecologies-to-come, or with those ecologies that once were, in the planetary past-present-future continuum of society's scientific imaginary. This is why reframing eco-criticism into a wide spectrum of analytical practices across the arts and sciences is crucial.

ANTHROPOCENE VARIATIONS

As a storytelling device, the idea and the concept of the Anthropocene has proven exceptionally useful (Grusin et al. 2017). It encapsulates a lot of scientific facts and numbers, difficult to digest, even one scientific discipline or area at the time. The consequences of their existence demand stretching thought and imagination across space and time to make distant connections (see Billing, also Wingård, Lindbo, and Lönngren, in this volume), to envision seemingly impossible futures, almost unfathomable forms for life on this planet. According to Heather Swanson, Nils Bubandt, and Anna Tsing, this makes the concept of Anthropocene a work of science fiction. The word "Anthropocene," and all that it describes, tugs "us out of familiar space and time to view our predicaments as if they belonged to a distant land" (Swanson et al. 2015,149).

Anthropocene, Capitalocene, Plantationcene, Wasteocene, Gaia, Chthulucene and the Great Acceleration: there are now many names in academic circulation for our global instability, and they all add a different emphasis. As Johanna Lindbo shows in her chapter, Anthropocene and other words for the world enable a differentiation of the normative human subject, Universal Man. It enables us to see the gendered, sexualized, racialized and colonized peoples hiding behind the "anthropos" (Crist 2013; Grusin et al. 2017).

Where the Anthropocene places an onus to environmental and climatic changes caused *in general by humans*, and the notion of the "Great Acceleration" to how fast ecological and biological diversity is dwindling with the legacies and aftershock of industrialization (Steffen et al. 2015), the concept of the Capitalocene (Moore 2013) and the Plantationcene puts emphasis on networked capitalism and colonialism (Demos 2016), and on the racial hierarchies of enduring environmental injustice and the legacies of empire. For instance, the extinction of over 50 million indigenous peoples in the Americas (called "the Great Dying") in the aftermath of the arrival of colonial Europeans was so violent it left a distinct record for climate science. Terms like the Wasteocene (Armiero 2021) also underscore a hegemonic world-system, a "capitalist world-ecology" (Moore 2013), adding an emphasis on toxic legacy and the imposition of waste on subaltern, female and more-than-human communities (Alaimo 2016; see also Cielemęcka and Åsberg 2019).

This richness in our collective terminology, *the words for the world*, to paraphrase Ursula K. Le Guin ([1972] 1976), do different jobs. The "anthropocene-variations" are labeling and underscoring a plethora of connected issues. Yet they are all, like Haraway's "Chthulucene" made up of "ongoing

multispecies stories and practices of becoming-with in times that remain at stake, in precarious times, in which the world is not finished, and the sky has not fallen—yet" (Haraway 2016b, unpaginated). These words for worlds also story the possibility of hope, for getting along together, live, play and die together, co-existentially, with some grace.

To many today outside of the academic debates, it becomes increasingly clear that climate change, environmental degradation and diminishing biological diversity constitute the key pillars of an ethico-political crisis, a cultural crisis, of drastic world-changing proportions. And many are also aware, or feel it in their bodies, that such entwined environmental forces and emerging political ecologies have a disproportionate impact on the already disempowered and marginalized communities of the world, as Rebecca Duncan elaborates in her chapter in this volume. What also becomes increasingly apparent to us in the present times is that not all forms of environmental impact are immediate, dramatic or "spectacular" (Nixon 2011) but rather insidious, intrinsic and often detrimental on a long-term scale of nested exposures. For things hard to fathom or measure, effects stirring in the guts, we need the evocative practice of ecocritique and an ecocritical imaginary.

As environmental humanities scholar Rob Nixon argues, there is, next to dramatic disasters, another type of environmental impact, sluggish and accumulating in the already more vulnerable bodies. Such "slow violence," he writes "occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (Nixon 2011, 2).

Earth's geosphere, biosphere (including human bodies), hydrosphere and atmosphere affected through global warming, deforestation and distant wildfire, hormone-altering plastic pollution, smog and ocean acidification, wars' toxic and radioactive aftermath, among others, are all examples of slowly unfolding and frequently overlooked violence "out of sight" but not without consequences for human and nonhuman communities alike. Simultaneously, both the spectacular (like catastrophic weather events) and slow forms of environmental violence mobilize affective responses. We feel differently about our surroundings as we learn of slow seeping toxic incursions, radioactive blueberries, environed embodiment and embodied environments, of immersive feedback loops between culture and what we used to simply call nature. Different words for worlds, like the Anthropocene, are not a way of spotting or romanticizing a newfound hybridity of nature and culture. In fact, they story our horrifying exercise of realizing how we are fully embedded and embodied in a postnatural condition of our own making, and of our own unmaking (Åsberg 2017).

The relationality of ecological co-existence, our sense of our bodies as porously immersed in the world and ourselves as biochemical beings in a

linked chain with other beings, are now pressing into our social consciousness. Like the unfathomably fast global spread of a zoonotic flu virus or the intercontinental effects of volcanic eruptions on air traffic, or slow, toxic incursions of wood-fired indoor stoves on women in India's countryside or fly ashes from industrial chimneys or plastic particulates in airways and waterways. Such awareness disturbs and belie ingrained Euromodern notions of "Nature" as a mere passive background and feminized resource (as in "Mother Nature will provide") for human culture, for human exploitation and extraction (Plumwood 1994; Demos 2016). It also belies humans as a univocal force of civilization, solidarity and linear improvements. People are not on common ground in this. In new ways, this emerging awareness—of the differentiating and overwhelming "naturecultures" (to use Haraway's term) we are part of, and made of—demand new conceptualizations, approaches, and new stories of us.

Amid the nested crises and contingencies of the world, we need now, more than ever, to carefully attend to both the wounds and the wonders of the ecological fabric of which we are entangled parts. Environmental forces—virus, pollen and microplastics—operate in and between our bodies, societies, and ecologies. How scale matters is no small concern. In his chapter, Björn Billing presents an ecocritical analytics for zooming out and zooming in, for keeping track of many scales and dimensions at the same time. Inspired by Timothy Morton, Erik van Ooijen elaborates in his chapter on an "ambient poetics" of nature writing without Nature (with capital N). Amid such dark ecologies, new spaces of sociability and mediation emerge with new stories of exposure. Ecocritically, Bruhn and Salmose take on such intermediality, while equally salient, Israelson and Olsson, take on telling examples of just how merged digital and natural ecologies are today and provide us with an ecocritical hermeneutic of everyday media ecologies. Camilla Brudin Borg walks us through pedagogical examples of how to handle place-writing and more-than-human agency by way of methodological synergy, and Martin Hellström explores the co-researching conversation as an ecocritical method. Amelie Björk provides us with insights into the much-needed new types of *zoopoetics* and metonymic literacy. In fact, all the chapters, taken together, provide a diverse and broad view to what ecocriticism can encompass, ranging from very hands-on, even empiricist methods, to evocation and incurably informed speculation.

STORYING EXPOSURE IN A POSTNATURAL WORLD

The chapters of this collection, albeit diverse in focus, engage thematically with recent theorizations and literary annunciations of climatic and ecological

exposure. The rich exposé of chapters in this book deal with literary and other medial expositions of ecological exposures, of stories of loss, stress, and vulnerabilities in human present, past or future societies. While a diverse set of ecocritical methods is explored, the chapters often draw on diverse interdisciplinary literatures. The scholars of the volume often make transversal connections between ecofeminisms, political ecology, feminist science studies, Anthropocene studies, intermediality and media ecologies, extinction studies, queer ecologies, multispecies ethnography, ecocultural studies, theoretical physics and sustainability science, plant theory, geohumanities and environmental history. All of these fields of research I see as kindred and overlapping (Åsberg and Lykke 2010; Åsberg 2008; 2021; 2023). They all belong to the open and versatile domains of the environmental humanities (Neimanis et al. 2015; Emmet and Nye 2017; Åsberg 2020).

In various ways, this volume's polyvocal ecocritical collective considers the status of narratives and other aesthetic forms that seek to account for environmental or climatic existences in the multiverse through experimentation with possible analytical models, like "critical utopia" as a literary analytics described in the chapter by Katarina Leppänen. There is a growing tendency among creative ecocritics within and outside of the literary disciplines to seek accounts for giving polarized debates and heating climates, stressed environments and communities storied form in ways that might eschew the trap of focusing only on "damage stories." Varying the performative power of storytelling, they all reject any kind of stance of proud pessimism, denying the possibility of social change or ecosocial improvement. Alternatively, they seek expressions of ways of living well with and caring for, in the words of queer ecofeminist Cate Sandilands, the "wounds of the world." This is perhaps a view to how ecocriticism in action seeks transversal connection and partial solidarity.

Indeed, the transformative powers of novels, cli-fi, sci-fi and literatures at large, of language, new or twisted old words, stories, speculative fiction, poetry and creative descriptions speaks to *our thirst for other-worlding strategies*. By them we know it could be different, and that, in itself, enables us to make a difference, however small. Yet, all too often, the means, methods, analytics or strategies for storying the world critically and creatively—in transformational and transversal terms—have remained largely obscured as a both a disciplinary and an extradisciplinary exercise of crossing-over. Methodologically, this volume is a veritable treasure chest for those of us learning new ways of storying exposures. All the chapters in this book seek to tackle predicaments in ecocritique, political ecologies or environmental humanities (and more-than-human humanities and postnatural arts) at large (Åsberg 2017; 2020), all of them in ways where the very *arts of telling stories are highly valued* and appreciated (Lorimer and Parr 2014). The new push for

ecologically situated methodological invention in ecocriticism finds exemplary applications, conceptual frameworks and creatively written accounts of exposure histories, of writing the ruin, exposure stories of species forever lost, dark ecologies or exposure geographies. Predecessor works for such wounds and wonder-modes, and writing practices, of storying exposure are offered in for instance *The Highway of the Atom* (van Wyck 2010), *Flight Ways: Life and Loss at the Edge of Extinction* (van Dooren 2014), *Curated Decay: Heritage Beyond Saving* (DeSilvey 2017), *Exposed: Environmental Politics and Pleasures in Posthuman Times* (Alaimo 2016) and the Scottish nature writing of *Antlers of Water* (2020). What make these exposure stories, situated forms of nature writing or modes of storying exposures reinventive of ecocriticism, are the keen awareness of the unfolding ecological crises as nested crises of climatic, cultural, political and locally specific dimensions.

A key innovation of these creative and critical literatures is the very fronting of "exposure" not only as something that environmental lands, waters and ecological bodies are subject to but also as an ethical stance taken by the scholar. The very performative act of writing is still perhaps one aspect of the research process most commonly overlooked (Vannini 2015; Lorimer and Parr 2014; Lorimer 2019). In practices of storying exposure the writer and the environment meet in a state of mutual and insurgent vulnerability (Alaimo 2016), where neither is secure in their relationship to the other. Storying exposure relies on stories of both the wounds and the wonders of the worlds exposed, while methodologically experimenting with an ethics directly related to the Anthropocene predicament at stake, where receptiveness is an emergent property. Greater exposure to different disciplines—to interdisciplinary or even postdisciplinary methodologies, to transversal conceptual borrowing across storytelling practices of science, literature, art and activism—offer new skills to the arts and humanities by way of ecocriticism. Thereby storying exposure, here proposed as an emergent tendency (largely outside the domains of conventional ecocriticism) and versatile practice in environmental humanities and more-than-human humanities, may extend the reach and influence of ecocritical academic writing, potentially attracting new crossover readerships and audiences.

Literature, in the widest possible understanding found in for instance (eco-) cultural studies, feminist posthumanities (Åsberg 2008; 2021) and media ecologies, are cultural scripts and mediated "texts" we can learn to read. Studies of the relationship between literatures and the physical environment, what Cheryll Glotfelty once termed ecocriticism (Glotfelty 1996), create a lively contact zone today. It is one that in multiple ways abridges the late Euromodern divides and distinctions made between culture and nature, arts and sciences, reading and writing.

For the matters at stake, however, we need not just new words or new facts, but whole new modes of organizing knowledge, systematizing our diverse storytelling practices, new creative practices of critique, new configurations of knowledge across the arts and science. Allow me to digress a little into the prospective, speculative futures of methodological ecocriticism. In part they already exist.

Ursula K. Le Guin (1974) speculated in the short story "The Author of the Acacia Seed" on future plant geneticists-*qua*-linguists in ways that greatly appeal to my ecocritical need for wonder and scientific imagination. In LeGuin's fictive future, not unlike our recently passed genomic heydays of bioscience (Åsberg 2005), the secret languages of plants and other organisms are mapped out and explored. Yet, plenty of more-than-human ecoliteracies already face us today (even if we are not philosophers like Derrida, feeling naked before our cat's gaze in the bathroom [cf. Haraway 2006:19–23]). Attention to exposure and environmental stressors is something people in fact share with many other communicative and sociable creatures in this world. How some ecologies story exposures themselves, like corals bleaching to acidified seas, is perhaps also nature writing, and nature reading its change to us? Like how thirsty tomato plants screech in high pitch tones for water (inaudible to human ears without acoustic equipment) or how we, with new forms of *environmental literacy*, can learn to read our milieus. For instance, we could learn to read the flourishing white presence of wood anemones (*anemone nemorosa*) in the forest as climatic signs of early spring, and as an index of nitrogen-rich or acidic pH levels in the forest floor. Indeed, how for instance fungi translate the humus to plants and bushes, or how whole ecologies signal, like how forests speak or think or read a situation (as widely popularized by Eduardo Kohn in 2013), greatly expand the ethical horizon of ecocriticism. Such atonement considers not just nonhuman agency (Barad 2003) but multispecies communities of communication of which people too are part. For such new ways of listening, reading and writing we need to situate ecocriticism within wider academic and even extra-academic forms of, say biodiversity advocacy, ecological sciences, biofeminist posthumanities, eco-artistic research, environmental justice activism against ecocide, and other skill sets and methods of arts, natural sciences, engineering and advocacy.

Considering the diverse invitations to engage ecocritically this volume has offered, we might want to start from existing paradigms and stay with their generativity. Or we could allow them to move aesthetics and ethics beyond the conventional literary genres and domains of culture. If we start from there and add affective leaps of imagination and postdisciplinary ruptures in an attempt to trace the impact and narrative of human-induced environmental damage otherwise, we already practice ecocriticism differently.

So, ecocriticism can be many things, as evidenced by the approaches in this book. However, that does not take away from its methodological salience or usefulness. In fact, this giving up on one coherent disciplinary identity for ecocritique or ecocriticism (one method, one object of study, etc.), while insisting on the transferability of transformative insight from knowing together on location, is a form of postdisciplinary "rooting and shifting" perspectives. This practice of rooting and shifting is crucial for the sake of mobilizing strategic alliances, to borrow a term from feminist political theorist Nira Yuval Davis (1997). This idea of rooting and shifting started out as a concrete practice of *politica transversale* among a feminist activist group living in Bologna, Italy, in the mid-1990s. These women visited war-riven conflict zones to support women in other countries, in a program they called "Women Visiting Difficult Places" (Cockburn 1998). What better time than now to use, and perhaps tweak, such locally situated peace-building strategies?

This transversal approach frees us from unproductive guilt trips and from the need to root politics in one single problem (capitalism, gender, legacies of empire, technological determinism) and steep it all in an ecocritical dream of a common language. Concepts and analytics that matter to us will do different jobs in different settings for different reasons, and it is naïve and counterproductive to try to settle the ecocritical score. Instead, we must make ourselves accountable for the change we want to see in the world by way of the storied matters we bring together, for different communities. This transversal approach to ecocriticism as the wider sense form of storying exposure puts collective thinking, intellectual generosity and solidaric coexistence, as well as the political performativity of theory-practices, ahead of academic prestige, clans, and conceptual territorialism. It matters more what the concepts do for different communities in different situations than to what scholarly communities they position themselves in or belong to. The performative transversalisms of ecocritique *are methodological* rather than identitarian. They build bridges in divided worlds. Practices of storying exposure, of creative exposition, or ecocritique point at a rich diversity of different approaches in both more *humane* and more-than-human registers of fact and fiction, word and world. Ecocriticism is transversal practice. Perhaps this is already evidenced by ecocritical scholars' warm embrace some years ago of the environmental humanities. Now this transversal practice, this community-building mode of working, is available to us in environmental humanities, and way beyond, and needed more than ever.

CONCLUSION

Let me deploy, as a heuristic device for framing the analytical diversity of this whole book, the classical pedagogical distinction of *method, methodology* and *epistemology* presented by feminist science scholar Sandra Harding (1986). To Harding, methods are the techniques for gathering evidence, methodology the background assumptions that guide and structure the research, and epistemology the ways we justify knowledge. Ecocritical methods here, in this volume, include hands-on approaches and scientific measures, systematic close-reading, interpretation and sense-making, focused semiotic analysis, eco-poetics, even writing as a method of inquiry. This volume also embraces methodology, generously, like critical theory, philosophical concept analysis, queer ecofeminism, and critical new frameworks for ecological or more-than-human literacies across diverse matters and media. It takes on epistemologies and physical (see Wingård, this volume), biological as well as cultural theories as analytical "thinking technologies" (Haraway 2004, 335). However, ecocriticism, like most meandering traditions of arts, sciences and hermeneutics, bridge and transgress in practice these distinctions between scientific method, methodology and theories of knowledge. In effect, they also abridge onto political concerns, move us in aesthetics and ethics of human and more-than-human worlds.

The ecocritical approaches here present the proverbial "smorgasbord" (*smörgåsbord*), a plethora of tools and guidelines facilitating and framing the research process in creative ways. Taken together, in an organic synthesis that reaches well beyond these pages, I think of them as one multivalent engine of discovery—what we call ecocriticism here as incurably informed, eco-literate modes of storying exposure by transversal means. I write this to underscore ecocriticism as a polyphonic assemblage, a hermeneutical tradition in constant reinvention of itself, rather than as a set of devices that are applied mechanically. It is a living beast, tentacular and grasping for hold, our ecocriticism. Now yours, too.

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