Frederike Middelhoff / Sebastian Schönbeck / Roland Borgards / Catrin Gersdorf (Hg.)

Texts, Animals, EnvironmentsZoopoetics and Ecopoetics

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Frederike Middelhoff / Sebastian Schönbeck / Roland Borgards / Catrin Gersdorf (Hg.)

Texts, Animals, Environments

Zoopoetics and Ecopoetics

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Preface

Texts, Animals, Environments: Zoopoetics and Ecopoetics has been a joint venture from the very beginning. Without the incredible support of those people dedicated to our project of thinking about the relationship of animals, environments, literature, and culture, this book would never have come into existence. Texts, Animals, Environments started out as an international, interdisciplinary three-day symposium held at Castle Herrenhausen in Hannover in the fall of 2016. The symposium served as a platform to bring together junior and senior scholars from the US, Brazil, Canada, France, Great Britain, the Netherlands, and Germany. It instigated a conversation between experts with backgrounds in diverse literary histories, cultural studies, media studies, and anthropology and provided an opportunity to exchange ideas about the connections of all those beings, books, and environmental phenomena composing and transforming the multiple oikoi of the planet we collectively inhabit. The book in hand gathers the contributions to this inspiring event.

As the organizers of the symposium and the editors of this volume, we would like to express our deepest gratitude to the Volkswagen Foundation for making the symposium and this volume possible. Thanks to the generous support of the Foundation, the idea of reinforcing the interaction between animal studies and ecocriticism, zoopoetics and ecopoetics eventually had the chance to materialize. We would especially like to thank Anke Harwardt-Feye, Margot Jädick-Jäckel, and Silke Aumann for organizing an unforgettable event in the beautiful Castle Herrenhausen and for their outstanding support in the lead-up to the publication of this book. In addition, we want to express our deepest gratitude to Bernhard Malkmus for assisting us during the symposium in Herrenhausen and for his inspiring remarks in the final part of the event.

Since none of us are native speakers of English, we are very grateful for the editorial assistance we received on our way to completing this volume. Alisa Kumm, Molly Bashaw, and Aimee Barrett did a wonderful job in helping us to copy edit and proofread the collected essays. Thanks to Anka Büchler, we obtained a cover image not simply illustrating this book but also the goal of the entire project, inviting us to explore the connections between texts, animals, environments, aesthetic practices and techniques. We would also like to thank Rombach Verlag, and Friederike Wursthorn especially, for assisting us in planning and releasing this book.

Our gratitude goes to everyone who was and continues to be involved in this amazing journey which resulted in, but has not yet ended with, the publication of *Texts, Animals, Environments: Zoopoetics and Ecopoetics*.

Coming to Terms: The Poetics of More-than-human Worlds

It matters what knowledges know knowledges. It matters what relations relate relations. It matters what worlds worlds worlds. It matters what stories tell stories.

(Haraway, *Staying* 35)

Texts are fabricated fabrics. The Latin textus for "tissue" originally derives from the verb *texere*, meaning "to weave" ("text, n."). Since classical antiquity, human and nonhuman characters and their respective environments have been woven into the tissue of Western narratives. Throughout the ages, animals and environments appear as either essential threads of literary texts, as a means to create the weaving patterns of a text, or even as the constituents of an entire genre: Be it Aesop's fables or Thoreau's nature writing; be it an internationally renowned poem such as John Keats' "Ode to a Nightingale," an acclaimed prose text such as Johann Wolfgang Goethe's "Novella" or a (children's) classic such as Felix Salten's Bambi. A Life in the Woods-animals and their environments abound in the fabrics of literary texts and the history of Western literature. In contemporary fiction, the textual presence of animals and environments is interspersed with concerns about global warming, climate change, factory farming, and species extinction.¹ Animals and environments are vital representatives and integral components of the "more-than-human world" (Abram) in and beyond literary representation.

Like texts, "animals" in this volume are emphatically conceived in the plural form. Most of the time, literature does not revolve around "the" animal as an abstract category but presents us with a variety of diegetic or semiotic-metaphoric species and animal individuals. Not least as a consequence of Derrida's already canonical reflection on the human and, even more so, on Western philosophy's hubris to categorize "the other" or "otherness" as "the animal" or "animality," scholars have emphasized the need for acknowledging the diversity and heterogeneity of nonhuman animals. Even though speaking of "animals" instead of "the animal" is itself incapable of

¹ Cf., for instance, Heise, *Imagining*; *Natur*.

doing justice to this diversity, it may highlight the plurality and acknowledge the abundance of species. Using the term "animals" in this volume, we not only intend to address and keep in mind the plethora of animal species, but we also want to reflect on how and why texts deal with nonhuman beings. Derrida introduced the neologism "l'animot" (cf., e.g., Derrida, Animal 47-51) to concede to the anthropocentrism of language and to simultaneously reflect its foundations and means of negotiation. L'animot morphologically conflates the general singular form "the animal" (l'animal) and "the word" (le mot) and is phonetically indistinguishable from the plural form of l'animal (i.e., les animaux). The neologism highlights the fact that even the plural is only a word, a "mot." Using the term "animals" in the title of this volume, we try to address and give credit to the abundance of nonhuman animals, while also reminding ourselves (and our readers) of the violence and ignorance imposed by concepts such as "the animal" which "men have given themselves the right to give" in order to "corral a large number of living beings" (Derrida, Animal 32). Furthermore, using the word "humans," we think of "humans" in the sense of "human animals," a species which is part of and not superior to what has been conceived as the class of mammalia.

Since animals within and without literary contexts are never detached from or devoid of their environments, an investigation of animals *and* environments seems indispensable. In Uexküllian terms, an environment can be understood as "the sphere of influence *which is created by the individual* and in which surrounding things enter but which remains a distinctly individual realm *and which, moreover, can never be experienced in the same way by other* living beings" (Herrmann 15). Animals live in and embody environments as their specific "milieus," their "self-worlds." These "subjective environments" are thus nothing less than individual "subjective realities" (Uexküll and Kriszat 93).³ Bearing the plurality and heterogeneity of environments *and* animals

[&]quot;Es handelt sich um einen Einflussbereich, der vom Individuum gestaltet wird, in den Dinge der Umgebung eintreten, der aber in jedem Falle ein ausschließlich individueller Bereich bleibt und sich zudem grundsätzlich der Erfahrbarkeit durch andere Lebewesen entzieht." All following translations from the German are our own.

Today, Johann Jakob von Uexküll (1864-1944) is hailed as a pioneer of ecology and biosemiotics (cf. Tønnesen). Uexküll acknowledged the profound difference between the area surrounding ("Umgebung") an organism and an individual or species-specific environment ("Umwelt") as it is perceived and created by a subject. He maintained that "every subject lives in a world in which there are only subjective realities and in which the environments themselves only represent subjective realities. Those who deny the existence of subjective realities, fail to understand the foundations of their own existence" ("[]]edes Subjekt [lebt] in einer Welt, in der es nur subjektive Wirklichkeiten gibt und die Umwelten selbst nur

in mind, this volume explores the very acts and challenges of "weaving" animals and environments into narrative textures and cultural contexts. It investigates the significance of animals and environments for literary production and poetic form, for theory, epistemology, and culture more generally. What do animals and environments "do" in literature and how do they relate to each other? How does this relation pertain to our thinking about animals, environments, and artifacts as well as the supposed "divide" between nature and culture? And which role do animals and environments play in the poetics of a text? Are they merely interchangeable devices, a picturesque canvas on which "all too human" stories are painted? Or is there more to literary animals and environments than rhetoric and representation? To address these questions, the contributions to this volume probe the interrelations between ecocriticism and (cultural) animal studies and examine promising concepts such as ecopoetics and zoopoetics. The volume connects these two recently established but as yet most often independently working fields including their objects and methods. At the same time, the volume develops new ways to describe these connections theoretically.

The Green Worlds of Starlings

The cover of this book shows a swarm of starlings at dusk. The birds fly up from a cornfield to settle on electricity pylons traversing an agricultural landscape. The words *Texts, Animals, Environments* foregrounding the evening sky, inscribe linguistic and textual materiality into the picture. Beneath the three nouns, two other words in the same green color as the field and the starlings are discernible: *Zoopoetics* and *Ecopoetics*. Title and subtitle are located on a specific photographic background which not only organizes them but also provides the viewer with a more specific meaning of this organization: *Animals* refers to the starlings, *Environments* to an agricultural landscape which is (trans)formed by the signposts of cultural institutions and technologies, indexing the electricity and farming industries which provide energy and nourishment for both humans and animals. These signposts also hint at other places where this nourishment is processed and consumed. In the context of this book, what is more important than the specific (and, in fact, not unproblematic) meaning of the words and their denotation beyond the

subjektive Wirklichkeiten darstellen. Wer die Existenz subjektiver Wirklichkeiten leugnet, hat die Grundlagen seiner eigenen Existenz nicht erkannt"; Uexküll and Kriszat 93).

picture is their relationship to each other as well as the pictorial means of representation (and, certainly in this case, defamiliarization in terms of color). If the cover of this volume were to be analyzed from a holistic perspective, it would be necessary to elaborate on the relations between the starlings *and* the cornfield *and* the aesthetics *and* the technology rather than looking at each of these aspects separately.

Two approaches corresponding to the respective fields of research invoked by the title can be distinguished: While scholars working in the field of ecocriticism primarily adopt a systemic-relational approach to explore phenomena related to the environment, those in the field of cultural animal studies are mainly focused on the study of individual or species-specific aspects; ecocriticism pays attention to ecological contexts and environmental issues; cultural animal studies looks at animal collectives or individual animals in specific, often socio-cultural, contexts. Undeniably, however, animals—be it those in or outside literature-cannot be fully grasped without their environments, whereas, in turn, environments cannot be conceived without the animals living in and affecting them. Interpretations of the starlings on the cover which ignore the birds' environmental context would not only neglect to acknowledge the complex interactions between the animals, the power poles, and the agricultural spaces but would also fail to grasp the dynamics of "environing," i.e., the process of shaping and imprinting a surrounding, performed by the animals as well as the energy sector and industrial farming. In turn, analyzing the environment of the birds without acknowledging their participation in policies and techniques of keeping electricity, corn, and birds apart would disregard the animals' role in shaping and constituting this environment. Furthermore, it would underestimate the relationship between the starlings and their environment for the poetics of the text and the photo-optical background.

In this book, the authors are concerned with literary texts and cultural spaces in which animals *and* environments are created and reflected in ways which negotiate and underscore the relations and co-dependencies between animals and environments. Both animal studies and ecocriticism have emerged as responses to political and ethical challenges, not least since concepts such as "the anthropocene" (Zalasiewicz, Crutzen, and Steffen), the human-made geological age, have come under scrutiny. From the very start, scholars of both fields discussed the status, the possible impetus of literature as well as the political and ethical agenda of the fields. Can literature make a difference? "What's in a word?" when it comes to pressing issues such as animal ethics and environmental crises? And what kind of agency

do texts, animals, and environments have in this matter? The volume in hand addresses these and closely related questions but does not propose to give final answers. It is concerned with the inquiry into the relationships between animals, environments, and texts and encourages further research and discussions; it studies the connections between animals, environments, poetics, and politics; and it comments on the dynamics of animals, environments, media, and space.

The Poetics of Animals and Environments

Texts are essential for ecocritics and cultural animal studies scholars in at least three ways. (1) They represent cultural knowledge and conceptions of animals and environments; (2) they reflect (implicit) ideologies pertaining to how and why humans deal with animals and environments; and (3) they are themselves productive elements shaping the environment and the sociocultural structures in which animals live. At the same time, animals and environments may play specific roles within a text. They can appear as (main) protagonists and characters with agency in works of fiction (the whale in Herman Melville's *Moby-Dick*; the weather in Adalbert Stifter's *Nachsommer*), as metaphors and semiotic agents within figurative speech or in idiomatic expressions (*homo homini lupus*; to steal someone's thunder; to kill two birds with one stone etc.). Finally, they can appear as basic elements within (non) fictional poetics (the ape as a means to illustrate mimesis; "nature" as the archetype of literature in Romantic poetics).

Using the concept "poetics," this volume investigates the relations between texts, animals, and environments. Both cultural animal studies and ecocriticism have adapted the concept of a "poetics" to their specific fields of research. "Poetics" stems from the Greek poiésis, the noun is derived from the verb poiéin, "to make" and "to create" ("poem, n."). As Kate Rigby reminds us in her approach to "ecopoetics," this process of human "making" and "creating" is not solipsistic but "reframe[s] human creative and emancipatory endeavor as a mode of participation in the more-than-human song of an ever-changing earth" (Rigby, "Prometheus" 251). Similarly, Aaron Moe envisions nonhuman species beyond a paradigm of poetic objects for human "poiesis." With his concept of "zoopoetics" he acknowledges that "nonhuman animals (zoion) are makers (poiesis)" and that their participation in the composition of a poem can be conceived as "a multispecies event" (Moe, "Toward Zoopoetics" 2). These conceptions of zoopoetics and ecopoetics highlight the fact that both cultural animal studies and ecocriticism not only

take an interest in the same objects but also share fundamental assumptions about poetics, and methodological approaches. The volume aims to explore the link between zoopoetics and ecopoetics and thus provide new ways and theories to advance and deepen the work of both ecocriticism and cultural animal studies.

Marking and Re-weaving Territories

Since around 2010, scholarship has begun to investigate the associations between the concerns of ecocriticism and animal studies. Contrary to Scott Slovic's prediction of a break between the two fields (7), animal studies has developed a keen interest in looking at animals from ecocritical perspectives, while ecocriticism has discovered animal studies as a viable lens to contemplate relations of place, the concept of "the nonhuman", and interspecies engagements. Thus, a complex dialogue between the two fields has unfolded. In their outline of the objects, concerns, and relevance of "literature-environment studies," Lawrence Buell, Ursula K. Heise, and Karen Thornber discuss "ecocriticism's complex attentiveness to ... the ethics of relations between humans and animals" (417) in an article dating back to 2011; Gabriele Dürbeck's first German introduction to ecocriticism of 2015 includes an article on "Cultural Animal Studies" (Borgards); a 2016 issue of Ecozon@ focuses on Animal Humanities (Past and Amberson); and Hubert Zapf's Handbook of Ecocriticism and Cultural Ecology includes Axel Goodbody's analyzis of "Kafka's Animal Stories," in which he concludes that "[a] nimal studies ... reveals itself as a field in which literature serves as a prime medium of cultural ecology" (269). In turn, in the Oxford Handbook of Animals Studies Anita Guerrini elaborates on "Animals and Ecological Sciences"; the Routledge Handbook of Human-Animal Studies features Philip Armstrong's and Annie Potts' article on "The Emptiness of the Wild"; and Roland Borgards' first German cultural studies handbook Tiere includes an article on "Tiere und Umwelt" ("Animals and Environment") by Catrin Gersdorf.⁴

Moreover, scholars are expanding their respective fields. Stephanie Posthumus has not only published articles on eco-approaches in francophone literature and thought but also edited *French Thinking about Animals* in 2015. The same interest in and engagement with approaches stemming from both

⁴ Cf., among other pertinent projects combining animal studies and ecocriticism, Nelson; Milne; Moolla.

ecocriticism and animal studies is discernible in the work of Kate Rigby, Axel Goodbody, and Benjamin Bühler. The volume in hand furthers the dialogue between ecocriticism and animal studies and is dedicated to the enterprise of weaving zoopoetics and ecopoetics into what might be termed "eco-zoopoetics," i.e., the study of the relationships between and the agencies of literature, animals, and environments. But what exactly do concepts such as "zoopoetics" and "ecopoetics" offer? How can they challenge conventional notions of poetics? And what kinds of "zoopoetics" and "ecopoetics" have emerged? Both terms are currently being used in and beyond the academic world and are examined for their theoretical and practical potential. As such, they are still in a phase of conceptualization. In the following, we provide a glimpse at the current state of this phase. Indicating the methodological assets of the different concepts and their common grounds, we would also like to point toward our volume's contribution to this current state of affairs.

Zoopoetics

One of the first scholars to refer to a "zoopoetics" was Jacques Derrida who brought the term up in a 1997 lecture on "The Autobiographical Animal." This lecture became his last book, now a pioneering text in animal studies theory. When Derrida used the term "zoopoetics" to speak about and contextualize the bathroom encounter with his cat, the word was surely not a concept yet, although in later accounts which pushed its conceptualization forward, scholars have often felt has felt obliged to quote Derrida's lines. Even if Derrida used the word (only) to describe his cat as a "real" cat in opposition to cats in literature and in the arts more broadly, it is rather doubtful that Derrida wanted to disqualify "literary animals" in general, not least because he always felt the need to question the very separation between "world" and "text," "language" and "being." Yet it remains unclear whether the cat in Derrida's bathroom really was not part of "zoopoetics" after all, or whether it must instead be considered a distant relative of *Le maître chat ou le chat botté*. The paragraph reads as follows:

I must immediately make it clear, the cat I am talking about is a real cat, truly, believe me, a little cat. It isn't the figure of a cat. It doesn't silently enter the bedroom as an allegory for all the cats on the earth, the felines that traverse our myths and religions, literature and fables. There are so many of them. The cat I am talking about does not belong to Kafka's vast zoopoetics, something that nevertheless merits concern and attention here, endlessly and from a novel perspective. (Derrida, *Animal* 6)

Derrida performs the differentiation between reality ("a real cat"), truth ("truly") and conviction ("believe me") on the one hand, and figurative speech, allegory, mythology, religion, fables, and "zoopoetics" on the other hand. Repetition, affirmation, and negation unfold the act of differentiation in language, exposing the effects of anthropo-technique and anthropocentrism as always already effective in language. By incessantly repeating that his cat is real and not literary, Derrida, in fact, highlights that both reality and literature are not only intertwined in his perception of the real cat but also in the perception of literary texts like Kafka's. Hence, Derrida can assert that "Kafka's zoopoetics" is something that "nevertheless merits concern and attention here, endlessly and from a novel perspective" (6). The interconnection of "real" and "literary" animals does not mean that both are identical. Instead, it becomes apparent—also from the perspective of Derrida's last seminars (Derrida, *Beast*)—that neither element can be considered independently of the other.

Aaron Moe provides another conception of zoopoetics:

Zoopoetics—a theory I introduce—recognizes that nonhuman animals (zoion) are makers (poiesis), and they have agency in that making. The etymology also suggests that when a poet undergoes the making process of poiesis in harmony with the gestures and vocalizations of nonhuman animals, a multispecies event occurs. It is a co-making. A joint venture. ("Toward Zoopoetics" 2)

In his articles as well as his 2014 monograph, Moe develops "zoopoetics" as a theoretical approach which stresses the plurality of nonhuman beings "who exhibit agency within environments" ("Zoopoetics" 28). Moe's work brings together the two areas that "zoopoetics" combines: "zoion" and "poiesis" underline that zoopoetics is most pertinent in modern poetry. In poems—e.g., in those of E. E. Cummings or W. S. Merwin—literary animals are not simply described as objects. Cummings and Merwin, as Moe shows, were attentive to and affected by animal poiesis. Animals must be acknowledged as agents who participate in the material and creative productions of poetry. In this respect, "[z]oopoetics is the process of discovering innovative breakthroughs in form through an attentiveness to another species' bodily poiesis" (Moe,

⁵ Cf. Danta 152-68.

^{6 &}quot;Without asking permission, real wolves cross humankind's national and institutional frontiers, and his sovereign nation-states; wolves out in nature (dans la nature) as we say, real wolves, are the same on this side or the other side of the Pyrenees or the Alps; but the figures of the wolf belong to cultures, nations, languages, myths, fables, fantasies, histories" (Derrida, Beast 4-5.; cf. also Kling 20-21).

Zoopoetics 10). Literature, therefore, can display and include the agency of non-human others; zoopoetics relies on animal makers and "is best understood as a poetry that revisits, examines, perplexes, provokes, and explores the agency of the nonhuman animal" (Moe, "Zoopoetics" 30). While Derrida performs and simultaneously questions the act of differentiation between reality and literature, expressing a need for a "novel perspective" of "zoopoetics," Moe reminds us of the etymology of poetics which does not exclude animals from processes of "poiesis."

Kári Driscoll's work on "zoopoetics" is the third and last position which shall be sketched out in this introduction. Driscoll defines "zoopoetics" as

concerned not only with the constitution of the animal in and through language, but also the constitution of language in relation and in opposition to the figure of the animal. Zoopoetics thus also always involves the question of zoopoiesis, of the creation of the animal as much as the creation by means of the animal. In a sense, zoopoetics may be regarded as the most fundamental form of poetics, in that it incorporates the primary distinction between human and animal on the basis of language. (Driscoll, "Sticky" 223)

Compared to Moe, Driscoll's approach organizes differently the two elements brought together in "zoopoetics". This combination of zoo-poetics creates an additional perspective for both "animal" and "language." Not only does Driscoll's concept juxtapose both elements, but it also comprises the "constitution of the animal in and through language" and the constitution of language in relation to "the animal." In this sense, Driscoll's conception of "zoopoetics" also touches the question of anthropological difference and the limitation of language. Language can be the medium used to differentiate between humans and animals, and, at the same time, language can also be the medium of a skepticism concerning the sharp distinction between humans and animals. As a result, "zoopoetics" is a term that simultaneously raises questions about animals and the operating modes of language. It is a term with two suggested meanings which can denote an "attribute of literary and theoretical works" that are concerned with animals, and, "a methodological question" (223) about the value of animal studies for literary studies and vice versa.

It is now possible to distinguish between three "definitions" of zoopoetics. First, Derrida subtly indicates that however hard we try to sever "real" from "literary" cats, we cannot conceive of the one without the other. Second, Moe develops "zoopoetics" as a theory that expands the realm of creative agents in the making of poetry. Third, Driscoll proposes "zoopoetics" as a method and an object of study; a concept which—like a chiasmus—addresses both

the zoology of poetics and the poetics of zoology. In a recent edited volume, Eva Hoffmann and Driscoll have reflected the challenges posed by thinking about and working with "zoopoetics." The question "What Is Zoopoetics?" raised in the title of the volume provokes not one but a variety of possible answers. The chapters of the volume agree, however, that "zoopoetic texts are not—at least not necessarily and certainly not simply—texts *about* animals. Rather, they are texts that are, in one way or another, predicated upon an engagement with animals and animality (human and nonhuman)" (4). Arguably, zoopoetics marks a consciousness concerning the precarious meanings of animals in and for literature. The term currently raises questions about the relationship between texts and animals rather than giving finite answers.

Ecopoetics and Environmental Poetics

Finding an answer to the question "What Is Ecopoetics?" is likewise not an easy task. First, it depends on who is asked—writers or literary scholars, poetic practitioners or theorists. Instead of a unified response, there are several approaches to thinking about the intersections of ecology and poetics or, more broadly, the relations between environmental phenomena and literary texts. Second, we must at least address the question of whether there is a conceptual difference between "ecopoetics" on the one hand, and "environmental poetics" on the other. This distinction begs yet another, no less fundamental question: What do we mean when we use (and possibly misuse) the prefixes "environmental" and "eco-" as the foundations of a concept?

Like "zoopoetics" in animal studies, ecocriticism has coined the terms "environmental poetics" and "ecopoetics" as theoretical and methodological approaches for discussing the relationship between texts and more-than-human worlds. In the German-speaking community, both terms have been conceived as more or less interchangeable and translated as either "Umwelt-poetik" (Morton 93, 160) or "Ökopoetik" (Mackenthun 83). This indicates not only that English-speaking scholarship has made use of the terms in varied contexts, but it also points to issues of translation and transfer. As

⁷ For conceptions advanced by poets and novelists, cf. Sherry; Gander and Kinsella; Hume; Skinner, "Ecopoetics"; "Why Ecopoetics"; Hume and Osborne. Skinner points out that "[r]ather than locate a 'kind' of writing as 'ecopoetic,' it may be more helpful to think of ecopoetics as a form of site-specificity—to shift the focus from themes to topoi, tropes and entropologies, to institutional critique of 'green' discourse itself, and to an array of practices converging on the oikos, the planet earth that is the only home our species currently knows" ("Ecopoetics").

Benjamin Bühler, echoing Florian Sprenger, notes in his monograph on ecocriticism: "The English word *environment* cannot simply be translated by *umwelt...*. What's characteristic for the term *environment* ... is the dyade *organism* and *environment* by means of which the organism becomes the center of attention" (36).

The issue revolving around the proper prefix had already been haunting "first-wave" ecocriticism in the early 1990s when scholars were discussing a name suitable for what they were doing and what they were interested in. Cheryll Glotfelty was one of the first to side with the proponents of ecocriticism. In her introduction to The Ecocriticism Reader, she points out: "Some scholars ... favor *eco*- over *enviro*- because, analogous to the science of ecology, ecocriticism studies relationships between things, in this case, between human culture and the physical world. Furthermore, in its connotation, enviro- is anthropocentric and dualistic, implying that we humans are at the center, surrounded by everything that is not us, the environment" (xx). Not holding to Glotfelty's "eco-" preference, Lawrence Buell argued that "'environmental' approximates better than 'eco' the hybridity of the subject at issue-all 'environments' in practice involving fusions of 'natural' and 'constructed' elements" (Buell, Future vii). Suffice it to say, that ecocriticism has become what Buell calls "an umbrella term" referring "to the environmentally oriented study of literature and (less often) the arts more generally, and to the theories that underlie such critical practice" (138); nevertheless, the terminological issue runs through the conceptual maze of what we are supposed to consider "environmental poetics" and "ecopoetics." The following section will provide a brief discussion of the terms "ecopoetry" and "environmental poetry," "ecopoetics" and "environmental poetics" by illustrating key aspects which affiliate and those which divide the concepts.

In Sustainable Poetry, Leonard Scigaj argues that environmental poetry and ecopoetry can be distinguished in terms of the way "nature" is conceived of and represented in poetry: "[E]nvironmental poetry reveres nature and often focuses on particular environmental issues, but without the ecopoet's particular concentration on nature as an interrelated series of cyclic feedback systems" (37). In this sense, and with Bühler's remarks on the term "environment" in mind, it can be argued that environmental poetry and environmental poetics focus on the interrelations between and mutual effects

^{8 &}quot;So lässt sich das englische Wort environment nicht einfach mit 'Umwelt' oder 'Milieu' übersetzen.... Kennzeichnend für den Begriff environment... ist die Dyade organism und environment, mit welcher der Organismus in das Zentrum der Betrachtung rückt."

of dyadic systems (i.e., organism and, or versus, environment), while ecopoetry and ecopoetics are interested in the associations and exchanges beyond two-component structures.

David Gilcrest hast tried to theorize and contextualize "environmental poetics." Acknowledging Buell's well-known definition of an "environmental text," Gilcrest points out: "Buell's criteria raise several intrinsically related issues.... The first issue is *epistemological*: what can we know of the nonhuman, and how is our knowledge constructed? The second issue is properly *aesthetic*: how can we integrate the nonhuman into human poetic discourse? Strictly speaking, these two issues taken together circumscribe *environmental poetics*" (4). Ethics of knowledge and representation stand at the fore of the environmental poetics Gilcrest investigates in the works of writers he terms "the contemporary nature poet[s]" (7). In contrast to the poetics of traditional "nature poetry," contemporary environmental poetics, according to Gilcrest, distinguishes itself not only by exhibiting and simultaneously cherishing the differences between human and nonhuman entities but also by conceding to the limits of linguistic and mimetic representation.

Gilcrest regards "nature," "environment," and "environmental issues" as a theoretical perspective but primarily as a component as well as an attitude of some literary texts (poems) negotiating the role of humans, language, and aesthetics in relation to human-nonhuman-environments and environmental concerns (cf. also Hutchings); a poetics which is suspicious of mimetic thinking, averse to synthetic ontologies, and which relishes in tropes, figures, and recyclable topoi; a poetics which probes aesthetic means—form, sound, and meter—to explore the role of humans embedded in and yet distinct from their specific *Umwelten*.

If we compare Scigaj's notion of ecopoetry with Gilcrest's understanding of environmental poetics, it becomes evident that they are not completely dissimilar. They appear complementary or rather as two sides of a coin. Both highlight the role of aesthetics, reciprocity, and representation in terms of how literary texts (i.e., poems) reflect ecological connections and the relationship between humans and the nonhuman world. Arguably, however,

Buell's "rough checklist" includes four (mainly thematically and ethically related) "ingredients" (Buell, Environmental Imagination 7) for an "environmental text": "1. The nonhuman environment is present not merely as a framing device but as a presence that begins to suggest that human history is implicated in natural history.... 2. The human interest is not understood to be the only legitimate interest.... 3. Human accountability to the environment is part of the text's ethical orientation.... 4. Some sense of the environment as a process rather than as a constant or a given is at least implicit in the text' (7-8).

environmental poetics seems more likely to foreground a dualistic concept of human-nonhuman relationships.

It is this dualism which scholars and writers engaging with "ecopoetics" have questioned in the light of ecological theory. Even though the term is used to denote both a variety of literary texts and diverse theoretical approaches to thinking about literature and ecology, ecopoetics is based on a premise which takes ecological and phenomenological relationality and systemic linkages into account. Jonathan Bate gave a first, tentative definition of ecopoetics. Working with Heidegger's idea of poetry as a form of dwelling and a means of uncovering, Bate maintains: "Ecopoetics asks in what respects a poem may be making (Greek *poiesis*) of the dwelling place—the prefix eco- is derived from the Greek *oikos*, 'the home or place of dwelling'" (75). For Bate "ecopoetics should begin not as a set of assumptions or proposals about particular environmental issues, but as a way of reflecting upon what it might mean to dwell with the earth" (266). In this respect, ecopoetics and environmental poetics can be said to intersect, emerging as ways of thinking about and engaging with the multiple ways of how we (want to) live with "the nonhuman."

In addition, Bate surmises that "it could be that *poiesis* in the sense of verse-making is language's most direct path of return to the *oikos* ... because metre itself ... is an answering to nature's own rhythms, an echoing of the song of earth itself" (76). Instead of a focus on (dyadic and, most often, asymmetric) relations between human and nonhuman worlds, Bate envisions ecopoetics as an engagement which is both intellectual and poetic—a sort of biosemiotic theory and practice pondering the significance of how and why it matters to dwell *with*, not *on* the earth.

Both Bate's definition and his preference for ecopoetics as ecopoetry has been complemented and challenged since the publication of his book. Many scholars use ecopoetics as a conceptual frame or a methodological tool to acknowledge, mainly contemporary, ecologically and ethically informed literature which assesses the entanglements of human and nonhuman worlds and which self-reflexively probes the supposedly abyssal relations between world and word. ¹⁰ Others identify and elaborate on the ecopoetics of specific

Cf., among others, Keller; Ergin; Nolan. Poststructuralist and posthuman theory, however, has challenged notions conceiving of worlds and words, "the real" and "the imaginary," "fact" and "fiction," (active) agents and (passive) objects as fundamentally different concepts or phenomena; cf., for instance, Derrida, Grammatology; Latour, We; Politics; Haraway, Staying.

writers and artists, such as John Cage, Walt Whitman, and even Thomas Malory and Geoffrey Chaucer.¹¹

In Keywords for Environmental Studies, Rigby enriches Bate's conception of ecopoetics by defining it as "an ecocritical neologism referring to the incorporation of an ecological or environmental perspective into the study of poetics, and into the reading and writing of (mainly) literary works" (Rigby, "Ecopoetics" 79). Similar to zoopoetics, ecopoetics is concerned with ecological references and relations in literary texts but also has to be acknowledged as a means of reading and interpreting literature more generally. Besides, Rigby foregrounds the fact that poiesis "is by no means an exclusively human practice" (79). Numerous other species create objects or are involved in nonhuman creative processes. Thus, ecopoetics, both literally and figuratively, has animals in mind.

Additionally, as Rigby reminds us, it might also be worthwhile to consider the fact that "[t]he natural systems that have enabled the emergence of these diverse creative practices might also be regarded as *poietic* or, rather, *autopoietic*." Hence, as Rigby observes "[h]uman 'poesy' is thus both continuous with that of other species and sustained by what the early German Romantics referred to as 'unconscious poesy' of the Earth" (79). For scholars of literature and culture, this means an opportunity to integrate the study of biosemiotics and ecosemiotics into the study of poetics.

As this brief conceptual history of environmental poetics and ecopoetics reveals, the concepts cannot be conceived of as oppositional nor as deadlocked patterns. Instead, they complement each other and might best be regarded as fluid, productive points of departure for various projects thinking about the entanglements of texts, environments, and ecology, the connections between poetics and *oikos* as well as the common grounds of environmental and literary studies. At the same time, the concepts invite us to reflect on the scopes, values, and pitfalls of our terminology, of our theories and translations of "environment(al)," "eco(logy)," "poiesis," "umwelt," and "oikos." Ideally, this leads to a heightened awareness of the specific theoretical frameworks in use but also to fruitful new ways of engaging with concepts such as ecopoetics and zoopoetics.

Cf., for example, Normandin; Jaeger; Knickerbocker; Siewers; Killingsworth. The distinction between "ecopoetics" and "ecocriticism" is touched upon by Killingsworth, for example. Ecopoetics, Killingsworth maintains, has "primarily phenomenological significance," while ecocriticism implies "a sharply political turn, invoking issues on the current environmentalist agenda." (6) Most scholars, however, seem to acknowledge ecopoetics as part and parcel of ecocriticism (cf. Bate; Rigby, "Ecopoetics").

Thinking Eco-Zoopoetics

As outlined above, both ecopoetics and zoopoetics have emerged as ways to describe literary poetics on the one hand, and as theoretical perspectives on the other, thus including dimensions of writing (representation) and reading (interpretation); both concepts are concerned with sensing, signifying, and making sense of the various forces of *poiesis* at work in contexts transcending human creative powers and artifacts. The volume in hand contributes to the ongoing discussion and the yet unfinished conceptual formation surrounding "ecopoetics" and "zoopoetics" and pinpoints the usefulness of combining and thus mutually illuminating the respective theories. It asks how and why the idea of an "eco-zoopoetics" is needed and how ecocriticism and animal studies can cater to and profit from each other.

In light of Donna Haraway's work, animals and their respective environments in literature can be regarded as "material-semiotic generative nodes," as literary agents created and affected by the dynamics within and beyond language. As such, these nodes enmesh what we are used to calling "the real" and "the figurative," the boundaries of which are not given but rather "materialize in social interaction" ("Situated Knowledges" 595). Literary representations of animals and environments are never independent of the meanings we give to "real" animals and environments, and, in turn, literary animals and environments play a vital role in the way we approach and think about "real" animals and environments.

Haraway's idea of a "sympoiesis" at work in global multispecies contexts might also help us to rethink the relationships between literature, animals, and environments beyond the dichotomous patterns of "real" or "literary," "animals" or "environments," "zoopoetics" or "ecopoetics." In this respect, it might be worthwhile to investigate the various forms of entanglement and co-production at work when species, environments, and aesthetic practices meet. Haraway describes these collaborations as forms of "sympoiesis" because the term

means "making-with." Nothing makes itself; nothing is really autopoietic or self-organizing. In the words of the Inupiat computer "world game," earthlings are never alone. That is the radical implication of sympoiesis. Sympoiesis is a word proper to complex, dynamic, responsive, situated, historical systems. It is a word for worlding-with, in company. Sympoiesis enfolds autopoiesis and generatively unfurls and extends it. (*Staying* 58)

Furthermore, a simplistic, conventional thinking which remains focused on species lines and on the boundaries separating specific environments might benefit from Haraway's notion of "worlding." For Haraway, "the world is a verb, or at least a gerund" ("SF"); the world is a space, an association, a context which is constantly being produced and transformed by agencies transcending human powers and bringing forth what Haraway conceives as "terrapolis":

Terrapolis is a fictional integral equation, a speculative fabulation.

Terrapolis is *n*-dimensional niche space for multispecies becoming-with.

Terrapolis is open, worldly, indeterminate, and polytemporal.

Terrapolis is a chimera of materials, languages, histories.

Terrapolis is for companion species, *cum panis*, with bread, at table together—not "posthuman" but "com-post."

Terrapolis is in place: Terrapolis makes space for unexpected companions. Terrapolis is an equation for guman, for human, for soil, for ongoing risky infection, for epidemics of promising trouble, for permaculture.

Terrapolis is the SF game of response-ability. (Staying 11)

Science and fiction, figures and characters, worlds and words, *bios* and *gra-phein* are interrelated in complex ways. Rather than starting out from the dividing lines between text and *hors-texte*, between animals and environments, zoopoetics and ecopoetics, the chapters in this volume pay attention to the specific forms of how these agents, concepts, and spaces interconnect.

Looking at the relations of animals and environments within literature, we can identify three main relations. Animals might be (1) part of the environments depicted in a text. Nineteenth-century realist literature, for example, quite often has animals appear as constitutive elements of a specific locale. In Theodor Storm's poems and novellas (e.g., "Meeresstrand"; "Eine Halligfahrt"; Der Schimmelreiter) set at the North Sea coast, for instance, seagulls are an explicit component of the poetic-picturesque environment; nature writing usually represents animals as integral parts of a specific environment (cf., for example, Aldo Leopold's chapter "The Geese Return" in A Sand County Almanac). These animals can indicate the fact that humans (writer and readers) are not only part of literary environments in the process of writing and reading but (like literature in general) also actively involved in ecological contexts: Texts, animals, and humans are part of and take part in environments.

Additionaly, animals and environments can serve as (2) *signifiers* of each other. This relationship can be described as *metonymical* (rather than metaphorical). Animals and environments are always and necessarily contiguous with each other; hence, they must be regarded *in relation* to each other—lit-

erally and semiotically. Literature can highlight or reflect this contiguity of animals and environments. Even if a text is reluctant to describe or define the relations between the two in detail, animals and their environments remain interdependent and interrelated-be they represented explicitly or referred to implicitly. Rilke's encaged panther, for instance, is not only physically linked to a specific Parisian zoo setting but also reminds us of those non-European habitats where panthers "naturally" live. In this sense, Rilke's panther (as well as, e.g., Kafka's ape Rotpeter) is also indicative of the history of colonialism and the commercial trade of "exotic" animals. Thus, Rilke's lyrical panther is pars pro toto for a specific European (domestic, urban) zoo environment and simultaneously refers us to a (rather unspecific or vaguely imagined) non-European ("natural") environment as well as to the colonial power structures linking both environments. Literary animals can even serve as signifiers for the entire biosphere, i.e., for all living (nonhuman and human) beings in general or for certain threats to the biosphere. This becomes most pertinent in literary texts featuring extinct species, like "the Dodo" in Lewis Carroll's Alice in Wonderland. In turn, specific environments can stand in for animals as toto pro pars, insofar as these environments allude to specific animals living in them. Descriptions or visual material of a city park or a riverside might make us "see" the birds, fishes, frogs, etc. inhabiting and shaping these spaces; literary representations of the land- and soundscapes of jungles can signify the animals creating these spaces and sounds. As signifiers, animals and environments are mutually inclusive or appear as metonymically related entities.

Finally, (3) animals and environments can serve as *ambassadors* for each other. Literary animals can raise awareness for ecological complexity and environmental issues, not least due to the performative capacities of animal agents. Getting in touch with animals (literally and figuratively) can advocate a change of perspectives, relativizing anthropocentric views by bringing us in contact with the place and the world (*oikos*) we share as well as with the multiple phenomenological worlds we perceptually live by; animals make the world come to the writers' and readers' minds and experiences. Likewise, literary environments can remind us of the animals living in them and animal issues more generally. Texts about deforestation, oil spills, and pesticide loads are obvious examples. Another is Melville's protagonist Moby Dick in the eponymous novel. Moby Dick appears as a representative but also as an ambassador-avenger of all those whales hunted and killed in the long and humiliating history of whaling. As an ambassador for those disappearing animals and all the environments damaged by human exploitation, Moby

Dick provokes ethical questions concerning animal welfare, overfishing, and ecological issues connected to the global oceans and—more broadly—to the earth that we inhabit. As ambassadors, literary animals and environments confront us with our response-ability toward the nonhuman in and beyond literature.

The volume in hand sheds light on the dimensions of this provisional typology and encourages further research into how literary animals and environments are entwined in and with texts. In this respect, *Texts, Animals, Environments* addresses four crucial questions: First, how do literary animals relate to their literary environments (and vice versa), how do poetics relate to animals and environments? Second, which rhetorical and semiotic relations can be found and distinguished when looking at animals, environments, and ecological formations in and beyond literary texts? Third, how can we describe the connections and the differences between literary animals and environments on the one hand, and "real" animals and environments on the other? Fourth, what difference does it make to look at ecological relations in and beyond texts informed by animal studies scholarship? The sections structuring this volume have these questions in mind and probe their scopes with contributions including case studies, hypothetical approaches, and theoretical proposals.

The first section of the volume (New Perspectives: Eco-Zoopoetics) assembles theoretical concepts of dealing with the connections of texts, animals and environments and extending the notions of zoopoetics and ecopoetics in innovative ways. While the dialogue between animal studies and ecocriticism has already been initiated, the development of common methodological tools and theoretical lines is still in process and in need of inspiring approaches. The chapters of this section offer new perspectives on and means of engaging with animals, environments and the poetics of literary texts. They take into account how texts contribute to our understanding and conceptions of animals and environments and provide us with new perspectives to describe more-than-human poetics as well as the relationships between texts, animals, and environments.

AARON MOE's "Holding on to Proteus; or, Toward a Poetics of Gaia" explores new ways to think about and acknowledge processes of *poiesis* within and of the world. Analyzing and interpreting modern poetry and prose in dialogue with contemporary posthuman theory, Moe introduces a Gaiaen poetics and discovers shape-shifting energies transcending human *poiesis*. In "Eco-Animal Assemblages in Contemporary French Thought," STEPHANIE POSTHUMUS invites us to approach and understand the more-than-human world with the support of two concepts taken from French theory (*le vivant*

and *l'habitabilité*) which she discusses in line with contemporary French fiction. Her transversal approach pinpoints the prospect of connecting animal studies and ecocriticism and underlines the key role of cultural and literary diversity to rethink the relationship between animals, humans, and "nature" beyond national and academic boundaries. MARIE CAZABAN-MAZEROLLES also draws on the concept of le vivant to develop her argument. In her chapter "Narrating le vivant: The Zoe-Poetical Hypothesis," she introduces "zoepoetics" as a poetics which encourages post-Darwinian, non-distinctive thinking and writing about the biosphere. Her article constructs "zoepoetics" as a bridge between animal studies and ecocriticism, yet also pays attention to the challenges posed by a literature venturing beyond anthropocentric traditions. ALEXANDER KLING's "Action, Framework, and the Poetics of "Co-Making": A Testing Device for Ecological Narratives" closes the section. A look at Barry Commoner's first law and Lawrence Buell's first precept of ecology helps Kling to develop a method of testing literary texts in terms of their ecological narrativity. Taking actor-network-theory (Latour) and narratology (Genette) into account, he illustrates the testing device by analyzing two works of German Heimatliteratur.

The chapters in the second section (*Theory and Genre*) focus on theoretical concepts, poetics, and specific literary genres which appear to favor an engagement with animals and environments. Formal and conceptual approaches to representing animals and environments depend on the genre as well as the epistemological and aesthetic background of a text; in many canonical theoretical and literary works, animals and environmental phenomena play an essential role in the poetical and axiomatic foundation of the texts. At the same time, the respective theories and poetics are affected by the animals and environments taking part in the *poiesis* of the texts. Narrative structures, poetic forms, rhetorical elements, and key arguments are related to the agency and predominance of animals and environments. The chapters in this section do not only highlight the importance of thinking about texts, animals and environments in relation to each other but also stress the fact that zoopoetics and ecopoetics have to be considered in the light of the characteristics and conventions of specific theories and literary genres.

The section starts with ROLAND BORGARDS' "The Beetle Is in the Eye of the Beholder: Animal Ecologies, Situated Poetics and the Poetry of Annette von Droste-Hülshoff." Borgards analyzes how Droste-Hülshoff's nature poetry can be read as a situated poetics which takes into account the material and semiotic presence of animals and their environments. In addition, Droste-Hülshoff's "zoo-eco-poetics" anticipates a proto-ecological perspective

acknowledging the entanglement of the human subject perceiving (and getting in touch with) the animals and the respective environments he or she is corporeally and poetically sharing. While Borgards revisits nature poetry in the context of nineteenth-century knowledge about animals and environments, Sebastian Schönbeck's "Return to the Fable: Rethinking a Genre Neglected in Animal Studies and Ecocriticism" is an appeal to reconsider the fable beyond its reputation as a purely anthropomorphic and unduly anthropocentric genre. By investigating how Rachel Carson, Michel Serres, and Jacques Derrida make use of fables to develop a theory about animals and environments, he argues that animals and their environments in these fables cannot be reduced to mere signs for anthropocentric ends. The genre of science fiction takes center stage in Benjamin Bühler's contribution to this section. In "Other Environments: Ecocriticism and Science Fiction," he analyzes the ways in which ways science fiction allows for the invention and reflection of alien environments, nonhumans, and the multiple ways in which humans are affected by them. In his engagement with texts by Stanisław Lem, J. G. Ballard and Dietmar Dath, Bühler shows that the literary animals are always already embedded in their environments so that one cannot take them into account as separate components of the diegetic world. Finally, WINFRIED NÖTH's "Peirce on the Continuity between Human and Nonhuman Minds" concentrates on the history of pragmatism and draws our attention to Charles Sanders Peirce's writings. Nöth argues that Peirce anticipates important ideas of contemporary animal theory in general, but, in particular, Brian Massumi's thoughts on what animals can teach us about politics.

The contributors of the third section (*Epistemology and Aesthetics*) examine the ways in which animals and environments are invested in aesthetical and epistemological theories and concepts such as "taste," "perception," "beauty," "knowledge," and "representation." At the same time, they probe the extent to which these concepts are influenced by animals, environments and their complex relations. Literature, the natural sciences, philosophy, and phenomenology may turn to animals and environments to not only illustrate but also to develop an argument or theory. Looking at fictional and factual texts, the chapters trace epistemological, phenomenological, and aesthetical concerns framing and determining conceptual perspectives on animals and environments in science, philosophy, and literature.

KARI DRISCOLL's "'Il n'y a pas de chats': Feline Absence and/as the Space of Zoopoetics" opens this section. He draws our attention to felines as paradigmatic animals for theoretical efforts in animal studies. Looking at Rainer

Maria Rilke, Gertrude Stein, T.S. Eliot, Ludwig Wittgenstein, Jorge Luis Borges, and Jacques Derrida, Driscoll analyzes the economy of representation and knowledge of felines that inhabit the same but simultaneously very different world of (non)human animals. JESSICA GÜSKEN's article revisits eighteenth-century philosophy. In her chapter "Blooming Flowers, Fish in Water, Amphibians, and Apes: Herder's Environmental Aesthetics of Nature," she outlines Johann Gottfried Herder's intellectual dispute with Immanuel Kant's aesthetic theory. Güsken elaborates on the meanings of specific flora, fauna, and environmental contexts in Herder's and Kant's discussion on beauty and ugliness, finding that both philosophers heavily rely on animals and environments as essential sources for their theories. Verena Meis turns to a specific aquatic species. Her "'The jellyfish must have precedence!': The Diaphanous Animal as an Optical Medium" is concerned with the jellyfish as a paradigmatic figure of ecopoetics, thus combining concerns of both animal studies and ecocriticism. With its various contexts of jellyfish narratives, Meis' article not only traces the role of siphonophores in the history of knowledge and media but also takes the *poiesis* of jellyfish as a methodological and poetic guideline of her own investigative approach. DAN GORENSTEIN brings us back to land animals with his "Ants and Battlefields, Beetles and Landscapes: Rudiments for a Naturalistic Reading of Ernst Jünger's Interwar Essays through the Lens of His Later Entomological Hermeneutics." He proposes a contextual reading of Ernst Jünger's oeuvre and its periodization in light of Jünger's epistemological and aesthetic engagements with animals and their environments. Looking at Jünger's writings on beetles, Gorenstein develops a theory of "entomological hermeneutics" the principles of which can shed light on Jünger's interwar essays and the coherence of his entire work more generally. DOMINIC O'KEY closes this section with "W. G. Sebald's Zoopoetics: Writing after Nature." In his analysis, he acknowledges Sebald's writings as both zoopoetic and ecopoetic and argues that Sebald challenges anthropocentrism in and through nature writing. Sebald's zoopoetics, O'Key shows, is sensitive toward issues of representation and style when it comes to animals and environments.

The fourth section of this volume (*Space and Agency*) investigates the spatial, medial, and existential impact of animal and environmental *poiesis* in and beyond literary contexts. Real and imagined spaces, as well as the relations and interactions between humans, animals and environments, stand at the fore of these contributions. The authors study the agency of texts, animals, and environments, exploring the *poiesis* of non-human agents and their capabilities to initiate, create, and bring about change. In these contributions,

animals and environments come to light not as objects of representation but as subjects affecting the means and medias of representation.

MARGO DEMELLO opens the section with her chapter on "The Rabbits of Okunoshima: How Feral Rabbits Alter Space, Create Relationships, and Communicate with People and Each Other." Examining the zoopoetical agency of rabbits inhabiting and shaping a small Japanese island, DeMello shows how the rabbits of Okunoshima modify the environment of the island and how they manage to influence the behavior of the human visitors coming to the island. The agency of organic matter stands at the fore of SARAH BEZAN's "A Darwinism of the Muck and Mire: Decomposing the Eco- and Zoopoetics of Stephen Collis and Jordan Scott's decomp." Bezan revisits Darwin's The Origin of Species in her analysis of Stephen Collis' and Jordan Scott's poeticphotographical work *decomp*. Bezan examines *decomp* as a creative contribution and sequel to Darwin's evolutionary theory as a theory of life that circulates between bodies and milieus. Matthias Preuss' chapter "How to Disappear Completely. Poetics of Extinction in Max Frisch's Man in the Holocene" presents a reading of the relations between (a) man, animals and environments in the context of Frisch's novel in which they act and meet. Preuss proposes to describe the relationship of ecopoetics and zoopoetics in terms of erosive and prosopopoetic effects that together shape Frisch's (anti)novel. While Margo DeMello examines the rabbits of Okunoshima as real animals that live and communicate with humans on a daily basis, Claire Cazajous-Augé's chapter "The Traces Animals Leave: A Zoopoetic Study of Rick Bass' 'Antlers'" turns to literature for an investigation of the spaces in which animal absences and presences come to light and can be traced. In the writings of North American writer and eco-activist Rick Bass, Cazajous-Augé considers the traces animals leave as animal *poises* and as an encouragement to pay attention to other forms of life and their ways of inhabiting the world.

Thinking about *Text, Animals, Environments* implies ethical concerns and questions pertaining to why and how literature deals with animals and environmental issues. The fifth section (*Ethos and Ethics*) is thus dedicated to the ways in which "ethos" (from the Greek *ethos* for "character" and "personal disposition") and "ethics" (the study of morals) relate to texts, animals, and environments ("ethic, n."). The authors of this part explore how novels and factual narratives represent and reflect animals and environments in the context of negotiating and exposing ethical issues. Perspectives from both zoopoetics and ecopoetics serve as fundamental approaches to dealing with the intricacies and dilemmas of living in a world shared by texts, (nonhuman) animals, and various environments.

The section begins with KATE RIGBY's "'Piping in their honey dreams': Toward a Creaturely Ecopoetics" which combines the perspectives of animal studies and the environmental humanities by focusing on apian poetic representations from ancient idylls, Romantic counter-pastoral to contemporary poetry. Rigby thus maps out a "creaturely ecopoetics" highlighting both the affinities of and the commonly shared impacts environmental exploitation has on human and nonhuman animals. Bees also play the leading role in Susan McHugh's chapter "Cross-Pollinating: Indigenous Frictions and Honeybee Fictions." McHugh starts out from the diagnosis that the perception of honeybees as constantly changing collectives is paradigmatic for the current challenges posed by the intertwinement of human and animal collectives. Revisiting a variety of contemporary honeybee narratives, she demonstrates how literary texts process and problematize human-avian encounters and relationships in postcolonial contexts. Another animal agent whose return has been occupying the European media is at the fore of AXEL GOODBODY'S chapter. In "Wolves and Wolf Men as Literary Tropes and Figures of Thought: Eco- and Zoopoetic Perspectives on Jiang Rong's Wolf Totem and Other Wolf Narratives," Goodbody interprets wolf narratives in and beyond contemporary Chinese literature. Focusing on Rong's Wolf Totem, he is concerned with the question of how the text deals with political questions concerning wolves in the grassland steppes of Inner Mongolia and what a zoopoetic and ecopoetic perspective can bring to a reading of Rong's novel and wolf narratives more generally. GABRIELE DÜRBECK's chapter on "Memory, Loss and Guilt in a Girl-Chimp Experiment. Karen Joy Fowler's Novel We Are Completely Beside Ourselves (2013)" asks how literature can challenge human-animal dichotomies in general and hierarchical thinking about humans and primates in particular. Dürbeck explores how contemporary novels, and most prominently Karen Joy Fowler's We Are All Completely Beside Ourselves, interrelate ethology and ethics and thus shed light on the complex issues pertaining to the affinities and the co-habitation of humans and primates. Finally, Frederike Middelhoff's "(Not) Speaking for Animals and the Environment. Zoopoetics and Ecopoetics in Yoko Tawada's Memoirs of a Polar Bear" investigates Yoko Tawada's latest novel as a work of fiction which reflects both animal and environmental concerns. Tawada's eco-zoopoetics negotiates and gives voice to both polar bears and environmental issues by impeding the reader's immersion into the bears' minds, by aligning human and nonhuman agency, and by exposing the various ways in which humans try to instrumentalize polar bears for anthropocentric ends.

Texts, Animals, Environments thus assesses the concerns and complexities of the interplay between texts, animals, and environments from the perspectives of zoopoetics and ecopoetics. It maps out the relations between the poetics of animals and environments, between individual organisms and organic contexts, between "real" and "fictional" agents. The volume is not only a substantial contribution to the theory of both ecocriticism and cultural animal studies but also offers a more comprehensive idea of what animals and environments mean in specific cultural contexts. The chapters in this volume illuminate the textual connections between animals and environments and make evident that an analysis failing to take these connections into account will miss crucial aspects of a textual, cultural, or even geographical fabric.

The authors of this volume illustrate that the concepts "zoopoetics" and "ecopoetics" can illuminate these connections and reciprocal structures. Both concepts can be useful to understand the extent to which animals and environments take part in the poetics of a text and how they are interwoven in the fabrics of literature more generally. Therefore, zoopoetics and ecopoetics might also help us to find out more about the effects animals and environments have on writers, readers, theories, and genres. Texts organize the intricate relations between humans, animals, and environments and stress the fact that nonhuman agents can be (co)authors. This volume demonstrates that eco-zoopoetical readings which start from the premises of both animal studies and ecocriticism not only relativize human agency but also foreground the relationality and interdependency of humans, animals, and environments in literary texts and nonliterary contexts.

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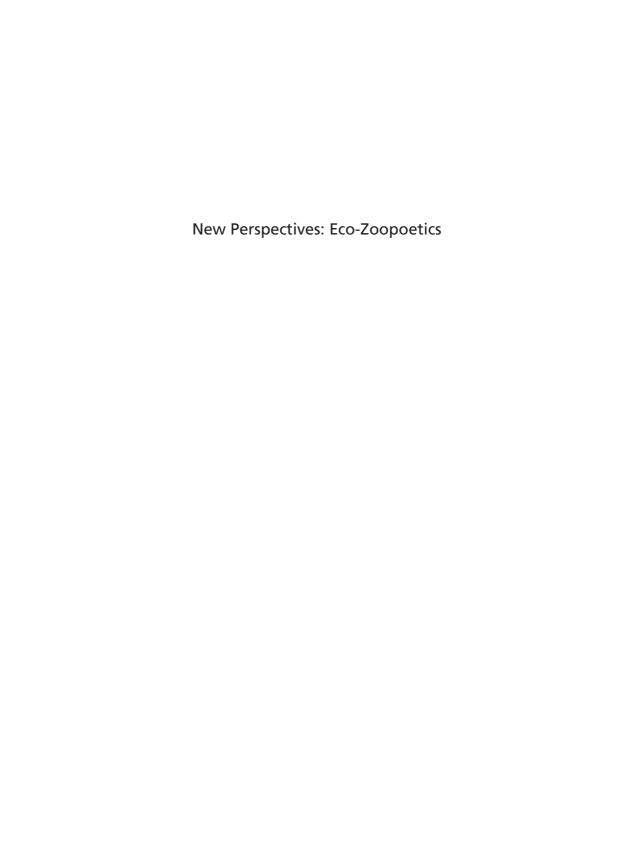
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Holding on to Proteus; or, Toward a Poetics of Gaia

Without conscious device we constantly reach into the vast word-hoards in the depths of the wild unconscious. We cannot as individuals or even as a species take credit for this power. It came from someplace else: from the way clouds divide and mingle (and the arms of energy that coil first back and then forward), from the way the many flowerlets of a composite blossom divide and redivide, from the gleaming calligraphy of the ancient riverbeds, ... from the wind in the pine needles, from the chuckles of grouse in the ceanothus bushes. (Snyder 18)

In the book of aphorisms, *Protean Poetics*, I write "Pythagoras saw *Kairos* as one of the laws of the universe, but it is difficult to know if that god outweighs another, namely, Proteus" (*Protean Poetics* 9). An aphorism, though, if it is worth its weight, ought to have a mountainous terrain of thought girding it up. This chapter explores some of that terrain—a terrain that points toward a poetics of Gaia.

By invoking the name Gaia, this essay enters into the ongoing discussion and exploration of finding better ways of understanding, perceiving, and responding to the Earth. Bruno Latour's work charts an array of implications stemming from Lovelock's groundbreaking work, earth-as-super-organism. Latour's "Agency at the time of the Anthropocene" is particularly crucial for moving toward a poetics of Gaia, especially as he argues that "Gaia is not the same character as nature," and he calls for us to "supplement the results of semiotics with an ontological proposition" (13). This ontological proposition hinges on his "morphisms" or "x-morphisms" with the x "standing for the first part of all those compound words," including anthropomorphism, zoomorphism, ideomorphism, and so forth. He stresses, though, not the prefix "but the word 'morph' that means form or shape" (13). He argues against the idea that such morphisms are fallacies, pointing out that each of the morphisms are simply an effort to explore, the "unknown actants" before those unknown actants become "well-recognized actors" (13). He continues, "Even the most respectable entities—characters in novels, scientific concepts, technical artifacts, natural features-are all born out of the same witches' caldron because, literally, that is where all of the *shape-changers* reside" (13).

This essay adds a layer to Latour's theory of a semiotics supplemented with the "ontological proposition" of morphing. I prefer, though, the term poetics (poiesis) over semiotics as the former points toward the ongoing making-ness sustained by the semiotic processes infusing the morphings throughout Gaia. Moreover, this essay frames the process of poiesis with the figure of Proteus. A protean poiesis, I argue, provides the traction for delving further into the morphings of Gaia as it points toward the energy in that witch's caldron.

Let us begin, not unlike Haraway's chapter "Tentacular Thinking," by focusing on spiders. As a point of entry into the world of meanings of the "Chthulucene" (the name for "becoming with" and "making kin" through a squid-like, multi-tentacle response to the Anthropocene), Haraway foregrounds spiders because their "many appendages make string figures" and because they "entwine [her] in the poiesis—the making—of speculative fabulation ... in sympoietic threading, felting, tangling, tracking, sorting" (31). Moreover, they have much more agency than one might give them credit for, above and beyond being a figure that can push human thinking in new directions.

Some spiders, perhaps, can play.

In The Genesis of Animal Play, Gordon M. Burghardt grapples with the implications of a small genus of jumping spiders known as Portia. These spiders eat other spiders, and they use a wide range of tactics in order to capture their prey, one of which is the ability to "invade another spider's web by sending vibratory signals through the web that mimic the signals created by insects captured in the web." *Portia* create these signals dexterously as they "pluck, slap, and ... flick" the web with their appendages and their abdomen. One might think that Portia have a "pre-programmed" ability to undergo this creative task, but researchers have observed how Portia will "send out a range of signals" until they lure out their prey, and that a *Portia* spider "learns to use different signals for different 'caught insects'" (368). Such observations suggest that Portia have the degree of agency and plasticity necessary to (deviously) imitate a wide range of insect ontologies-even if those ontologies have to do with being frantic in a spider's web. Protean-like, their vibrational energy morphs into an insect's way-of-flailing, and then another and another, until they lure out their prey.

Portia spiders epitomize what I have called zoopoetics, that process of making innovative breakthroughs in form through attentiveness toward another species, bodily poiesis (*Zoopoetics* 10). But this narrow definition marks only a starting point. What about, for instance, when a species makes an

innovative breakthrough through an attentiveness toward an element, or a plant, or a machine? Bowhead whales, for instance, fold the sounds of expanding and contracting ice into their whale songs; a harbor seal has mimicked the sounds of a chainsaw, a car alarm, and a camera shutter; captive elephants rematerialize traffic sounds into their vocalizations (Rothenberg 194-96; Kelley and Healy)—and by "rematerialize" I explicitly draw on Scott Knickerbocker's work on "sensuous poiesis": the "process of rematerializing language specifically as a response to nonhuman nature" (2). Whales, harbor seals, elephants, all rematerialize their material semiotics in response to their environment. We must add Alex, the famous parrot, to this list. He made breakthroughs not simply by imitating humans speaking English, but also by adding the sounds of cages rattling, horns honking, doors closing, and phones ringing to his range of experimentation (Burghardt 266-67).

Human poets, too, discover breakthroughs through an attentiveness to plant, element, or machine. Concerning the latter, I am reminded of Marinetti's "poetry being born" and the daring break into an onomatopoetic pulsing of train:

POETRY BEING BORN

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train train train train tren tron
tron tron (iron bridge: tatluuuun-
tlin) sssssssiii ssiissii ssiisssssiiii (200)
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Proteus as cyborg.

In a less intense example, William Carlos Williams gives us four wheelbarrows in his title-less poem:

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So much depends upon
a red wheel barrow
glazed with rain water
beside the white
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chickens (I: 224)

I agree with Neil Easterbrook who argues that "editors perform a disservice" when they give this poem a title, for they "edit away its inherent—indeed, intended—problematics" (29). I would also add that the forced title pins down the poem that was published in the context of *Spring and All*, an extended meta-reflection on language and the imagination—a reflection that pushes genre, blends genre, turns chapter markers upside down, and proceeds out-of-order. So much depends, then, on this flux of energy, this protean energy, infusing not only this thing called human language where four stanzas morph into wheelbarrow but also the biosemiotics of whales, seals, *Portia* spiders, parrots, and perhaps all of Gaia.

Wendy Wheeler's work on biosemiotics resonates with the protean dynamic I explore. When discussing the "emergence of communicative systems," Wheeler foregrounds the need for some sort of pressure, what I see to be the kind of *holding on* that propels Proteus to morph. In the biosphere, "levels, or layers, of relative stability are always pregnant *in potential* with the emergence of new adaptive forms in response to environmental pressures. Each 'layer' is, over time, increasingly rich in communication, or semiosis" (272). Her work helps us see how the environmental pressures exerted on *Portia* spiders turned the "pregnant *in potential*" of material semiosis into a kinetic reality. Perhaps, for the bowhead whales, the pressure to add ice creaks and groans to their songs is the pressure of play. For Koshik, the elephant who stuck his trunk in his mouth to vocalize five Korean words, the pressure seems to be social (Stoeger et al.). Isolated at a time of adolescence, he reached out, semiotically, to the only other mammals in his environment.

This squeeze, this *holding on*, takes place, too, in the work of human poets. To illustrate, I turn to the pressure Ronald Johnson places on language in his "earthearthearth" poem (67):

earthearthearth earthearthearth earthearthearth earthearthearth earthearthearth earthearthearth

Through the fusion, through the pressure of the square, he achieves a fission of language where suddenly an almost exponential surge of words and phrases come into being: hear the earth, hear the art, ear, art, heart the earth, art earth, hearth, etc. Language becomes a cauldron of protean energy turned kinetic, and though some may see this "accidental" coincidence to be merely

a trope for the earth's energy, for Gaia's energy, I suggest that Johnson's poem participates in that same energy of a biosemiotics that infuses the earth. As Wheeler suggests, the "biosphere is also the semiosphere" (272)—and I add, again, that the protean poiesis of this semiosphere helps foreground the protean agency of semiotic processes. Johnson makes more of an explicit move toward biosemiotics, for the page following the "earthearth" poem includes a diagram of mitosis and an ode to the cell: "prosper / O / cell // through there where the forest is thickest"—with the "O" of course, morphing into an iconic sign for a cell (68). And that is just it. It is not simply that the cell is a trope for language, or language a trope for the cell, but that both exhibit their own agency to fuse and split. In the context of mitosis, it is not going too far to see the square of "earthearth" as a cell ready to split apart as individual words emerge as separate cells of their own, full of their own potential energy. Something seethes within the open confines of this box, this square. It is as if the square takes on a seed-like quality, or a zygote-like quality, that cannot not explode into an exponential surging of possibility.

To further grapple with this protean energy, I turn to what I see to be one of the most thorough, extended, and profound meta-reflections on protean energy in American literature: Moby-Dick; or, The Whale. Even in the bifurcated title, Melville hints at how both the poetic approach (i.e., "Moby-Dick") as well as the scientific approach (i.e., "The Whale") are needed; or rather, how Proteus thrives in the logic of or. Like Portia spiders, who send the vibrations of a gnat, or fly, or beetle through their prey's web, the text of Moby-Dick becomes sermon, or play script, or marble inscription, or cetology, or epic narrative, or etymological text. Moby-Dick epitomizes, therefore, Haraway's "tentacular thinking," and from this vantage point, perhaps the most meta-reflective chapter of the book is that of the squid, especially as Ishmael foregrounds how each tentacle of the squid possesses the power to squeeze: "A vast pulpy mass, furlongs in length and breadth, of a glancing cream-color, lay floating on the water, innumerable long arms radiating from its centre, and curling and twisting like a nest of anacondas, as if blindly to clutch at any hapless object within reach" (226). Applied to Moby-Dick, each genre, and each chapter, moves like an anaconda, weaving around other genres/chapters, through the reader's consciousness, poised to curl and squeeze.

Later, Ishmael foregrounds the weaver: "Oh, busy weaver! unseen weaver!—pause!—one word!—whither flows the fabric?" He continues:

Wherefore all these ceaseless toilings? Speak, weaver!—stay thy hand!—but one single word with thee! Nay—the shuttle flies—the figures float from forth the loom; the freshet-rushing carpet for ever slides away. The weaver-god, he weaves; and by that weaving is he deafened, that he hears no mortal voice; and by that humming, we, too, who look on the loom are deafened; and only when we escape it shall we hear the thousand voices that speak through it. (345)

At this moment in *Moby-Dick*, Ishmael praises the "weaver-god" whom he sees as the Earth, the ever growing, ever creeping, ever seeking vegetation of the earth. I see the "weaver-god" as another name for protean energy. Of course, we know that *text* comes from the Latin *textus* meaning *to weave*, and so this passage becomes a reflection on the nature of language as well. Elsewhere in *Moby-Dick*, Ishmael speaks of the "furious trope." Trope, from the Greek *tropos*, meaning *a turning*. Lewis Hyde, in his well-known *Trickster Makes This World*, sees the trickster as a "poly-tropic" shapeshifter, having many ways and many turnings (52-53). A trope. A fury of tropes. A fury of turnings and morphings. Ishmael's "loom" of the Earth, then, with its "thousand voices," points toward the sheer power of poiesis infusing the burgeoning forms of Gaia's vegetation.

And then, right in the beginning of Moby-Dick, Ishmael marvels at what becomes one of the most significant meta-passages in the entire work: the ekphrastic description of a painting that, at the center, holds a "nameless yeast" (26). If I had to give this yeast a name, it would be Proteus, for furious morphings permeate the entirety of Moby-Dick, from the biomimicry of the architecture of the bar turning into whale jaw, and the pulpit turning into prow, and so on. Moreover, the impetus for Ishmael's writing *Moby-Dick* is his wanting to give homage to his lost companion, lover, friend, soul-mate: Queequeg. The editors of the Norton Critical Edition point in this direction as they place the image of Queequeg's tattooed face on the cover of the book. Indeed, a seer tattooed the strange "hieroglyphics" onto Queequeg's body, his "living parchment"-hieroglyphics that point to "a complete theory of the heavens and the earth, and a mystical treatise on the art of attaining truth" (366). Later, Queequeg etches these marks onto the coffin, the same coffin Ishmael had to have taken with him when the Rachel picked him up out of the sea. How could he not have? Ishmael's writing of *Moby-Dick* is an homage to Queequeg and an honoring of those tattoos. The complete theory of the heavens and earth morphs from the seer's mind, to tattoo, to the etchings on a coffin, to the making of the monstrosity of the book itself.

Another noteworthy morphing occurs in the etymology section where we learn that the letter H is the most significant letter in the word *whale*:

While you take in hand to school others, and to teach them by what name a whale-fish is to be called in our tongue, leaving out, through ignorance, the letter *H*, which almost alone maketh up the signification of the word, you deliver that which is not true. (7)

The H captures the possible-impossibility of getting at the sheer vitality of a living whale through this thing called language. As Peter Moe recognizes, every time we say whale, we are invited to participate in that living breath, that epic exhalation, that sheer rush of vital, physical, spiritus of the whale spout ("Sounding" 870):

wwwwWHHHHHHHHHHHHaaaaaaallllleeeeee

The H, protean-like, morphs into a whale breath that tremors our teeth, jaw, and skull—until all energy dissipates from the tongue's press of the letter l on into the charged silence of the letter e, which is not unlike the silence of the ocean's depths where the whale has now returned. Perhaps no other word is so thoroughly inhabited by another species than this.

The reader has an opportunity to witness and participate in the squeezing of language. And in the context of protean energy, the chapter on the squeeze resonates: "My fingers felt like eels, and began, as it were, to serpentine and spiralize" (322). Camille Paglia suggests that this squeezing, this "circle-jerk," is yet another iteration of the romantic uroboros, the snake who eats his tail, as she traces the circle throughout the text (699). But the squeeze of the entire novel is not entirely male. The orgasmic energy of "the squeeze" emerges from the larger context of a uterine contraction, especially in the Grand Armada where circles upon circles bear down, contract, and squeeze the crew that arrives at the center of a great "lake" in the ocean as innumerable bodies of whales create a circular perimeter (302). This epic scene makes sure readers see the squeeze, the contraction, of the circle: "concentric circles," "centre of the lake," "outer circles," "rim of the horizon," and then the "heave and swell," the "contracting orbits." All of these examples contribute to an oceanic squeeze of a contraction (302-03). Here, Queequeg (and the reader) witness the calf still tethered to the mother through the umbilical cord. But the circle contracts, bears down, and ends up squeezing the center into oblivion, birthing the boat onward.

Birth permeates the text, from Queequeg's "delivery" of Tashtego from the womb/tomb of the whale head, to the many instances where someone or something is placed at the center of a vortex, including Queequeg's coffin. And I return to that ekphrastic painting where, in the center, the aforementioned "nameless yeast" buoys up some indiscernible shape. The yeast cannot not expand exponentially, and it cannot be named. If named, it will ferment within that name, increasing its potential energy until a rupture turns that energy kinetic.

This "nameless yeast," this vegetative and animal exuberance that cannot not grow, points, in my mind, toward a poetics of Gaia. As mentioned, Pythagoras saw *Kairos* as one of the laws of the universe; I suggest that Proteus, too, ought to have that kind of stature. To add to the weight of evidence for such a claim, I turn toward mathematics. Let me share a story. In my early teaching years, I tutored a wide range of students in mathematics. I remember working on dividing fractions with a sixth grader who asked me, naturally enough, why we invert and multiply in order to simplify, say, 2/3 ÷ 4/5. The question flummoxed me. The book did not say. I did not know. This happened before you could just "google it." I went home haunted by the question and determined to figure it out. An intuitive hunch led me to re-write the same expression in a different form—in other words, to let the expression morph into something else:

$$\frac{2}{3}$$
 $\frac{4}{5}$

As I stared at the denominator, I had enough of a background to know I needed to turn it to "1," so I wrote the inverse in the denominator, and then, Eureka!—it suddenly became clear that I simply wrote the inverse in the numerator as well, because anything divided by itself equals one:

$$\frac{2/_3}{4/_5} \left(\frac{5/_4}{5/_4}\right)$$

So, multiplying the original expression by a more complex name for "one" gives Proteus room to morph into a simpler expression. When I met with the sixth grader again, we had a lesson on Proteus and brainstormed a few of the infinite ways we can say "one." I explained that she had to sift through all the different ways of saying one in order to find the expression that would let the magic take place, to suddenly let the denominator vanish so we can invert and multiply—but since anything times one is itself, the value had not changed.

When I worked with middle school students on radicals and exponents, I likewise focused on how, really, simplifying an expression is an exercise in *holding on* to Proteus as the value morphs through many different forms. I had a handful of students who wanted to form a math club, and we did it. Their favorite activity was racing each other to see who could simplify a complex expression. The following example can take less steps, but I include each stage for clarity:

1.
$$\sqrt{\frac{32*243}{36}}$$
 2. $\sqrt{\frac{2^5*3^5}{6^2}}$ 3. $\sqrt{\frac{6^5}{6^2}}$ 4. $\sqrt{6^{5-2}}$

5.
$$\sqrt{6^3}$$
 6. $\sqrt{36*6}$ 7. $6\sqrt{6}$

Some of the quicker students, of course, skipped steps. One, in particular, skipped several steps at a time, allowing the multiple layers of patterns to fly through her mind until she landed on the simplest expression. Regardless, each iteration of the process becomes another way of saying the value, and the mind, attuned to the laws of exponents, can experience the value morph through several expressions with great rapidity.

I still remember the faces of the middle schoolers and the sixth grader's expression as well when they got a glimpse of the fierce infinitude in math. No doubt about it, some experienced the sublime. The "infinite" is one of Edmund Burke's categories for the sublime, and he suggests that the infinite "has a tendency to fill the mind with that sort of delightful horror, which is the most genuine effect and truest test of the sublime" (129). Regardless of our backgrounds or phobias surrounding math, I hope we can all appreciate the "delightful horror" in the following expressions discovered by the mathematicians Ramanujan and Euler, in that order (qtd. in Clawson 210, 98):

$$1 - 5\left(\frac{1}{2}\right)^3 + 9\left(\frac{1\cdot 3}{2\cdot 4}\right)^3 - 13\left(\frac{1\cdot 3\cdot 5}{2\cdot 4\cdot 6}\right)^3 + \dots = \frac{2}{\pi}$$

$$\sum_{n=1}^{\infty} \frac{1}{(2n-1)^2} = \frac{1}{1^2} + \frac{1}{3^2} + \frac{1}{5^2} + \frac{1}{7^2} + \dots = \frac{\pi^2}{8}$$

Because pi is a transcendental number with a nonrepeating decimal, we may be surprised to see such a predictable pattern in the infinite series of fractional form. Ramanujan's recasting of two divided by pi becomes a predictable pattern. With each iteration, the numerator grows by the pattern of the odds, the denominator grows by the pattern of the evens. One alternates between subtracting and adding each subsequent iteration, and the whole number grows by four (1, 5, 9, 13, 17...). Euler's expression involves adding one over the pattern of the odds squared, all the way to infinity, to arrive at pi squared over eight. In both expressions, I see an epic morphing across the equal sign, from one form, into another, with vertiginous precision. A delightful horror indeed. A protean sublime.

I do not have the space, here, to discuss Proteus in the context of Fibonacci's spiral, the Golden Ratio, fractals, and the Mandelbrot set—but I will say, briefly, regarding the Mandelbrot set, that the iterative equation places pressure on each point of the complex plane, say, the point at .5 and .5 square-roots of a negative one. If the value spun to infinity quickly, Mandelbrot "painted" it a hot color. If slowly, a cooler color. If the value arrived at zero, he painted the point black (Briggs 74-81). The iterative equation becomes a way to squeeze and to hold onto each point on the complex plane in order to bring forth all the breath-taking emergences of fractal forms, and it is yet another example of the profound ways a protean energy infuses number. As fractals point back toward the fractal forms of the earth, it helps us come full circle back to a poetics of Gaia.

To my knowledge, no one has used the term "protean sublime" in any formal discussions, but it seems to me that the term can be helpful as we tease out what a poetics of Gaia might mean. To think this through, I turn to Timothy Morton's theory of hyperobjects. He, of course, gives many examples of hyperobjects—those "things that are massively distributed in time and space relative to humans" including: Styrofoam, global warming, ecosystems, pesticides, oil fields, a black hole, radioactive waste. They have a "high-dimensional phase space that results in their being invisible to humans for stretches of time" (1). In his chapter on Phasing, he explores the "higher-dimensional phase space" of hyperobjects and illuminates how "we can only experience somewhat constrained slices of them at any one time"; the hyperobject "churns away, emitting ghosts of itself for [our] perusal" (74).

Though not explicitly, Morton's work already points toward the idea that protean energy is a kind of hyperobject. He writes,

The singing of Sanskrit syllables, such as "OM" ... evokes the materiality of the singing body and of the breath that circulates within and outside that body. These syllables are made to vibrate with as subtle and as profound a range of harmonics as possible, evoking the vastness of the universe. Devotional singing, then, is a form of hyperobject. (169)

Or, as Joseph Campbell articulates, AUM includes "all vowel sounds" and "all words are ... fragments of AUM" (286).

Indeed, the chant allows one to experience a glimpse of that vibrational energy of the cosmos. But that energy is tantalizing due to its phase-space. Morton, speaking of global warming, conjectures that a "high enough dimensional being could see global warming itself as a static object. What horrifying complex tentacles would such an entity have, this high-dimensional object we call global warming?" (71). Likewise, what monstrous, complex, tentacles would this high-dimensional object we call protean energy have if seen from the vantage point of a high enough dimensional being?—especially as we can only see a sliver of its full force?

This essay has put forward several manifestations of protean energy, from *Portia* spiders, to the Mandelbrot set, to basic math, advanced math, Johnson's "earthearthearth" poem, Melville's squeezing of language and genre, the chant, Alex the Parrot, Koshik the Elephant, and the biosemiotics of cells. And I could have included many more examples such as the spirituals sung by slaves morphing into Jazz under the extreme pressure of racial injustice as a result of a failed emancipation (Jean Toomer's *Cane* with its hybrid and protean genre exemplifies the work of Proteus under the squeeze of trauma); I also think of Gloria Anzaldúa's work in *Borderlands / La Frontera* where she explores, in her words, how "protean being" and a mestiza consciousness emerge under the pressures of living in a borderland (63)—and there are many more examples I could give, each of which is merely a hint of this sublime hyperobject the Greeks called *Proteus*.

I read Menelaus' tale as cautionary. Menelaus only ambushed Proteus when Proteus returned to his cave to sleep, that is, when he was fatigued. Only then would it be possible to begin to hold on; such is the power of Proteus' energy to morph. It seems writers like Melville held on when Proteus was not so sleepy, and such writers seem to become obsessed with the tantalizing phase-space of Proteus' manifestations.

But this essay, though it includes human poiesis, seeks to move beyond it. Surely, a poetics of Gaia must include all that the chant of AUM points toward, and perhaps Gaia is nothing more than a seed tossed aside during a hyperobject's wild blossoming.

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Eco-Animal Assemblages in Contemporary French Thought

In the Anglophone world, animal studies and ecocriticism have given rise, for the most part, to separate fields of scholarship, academic conferences and programs, internationally-renowned journals, monographs and anthologies. And for good reason. When one considers the ethical foundations on which they have been built, their differences appear quite marked. Animal studies emerged largely from the ethics of individual animal rights and welfare, while Ecocriticism adopted the holistic, ecocentric view characteristic of early environmental ethics. These two branches of moral philosophy have long been in conflict. In his 1980 article "Animal Liberation: A Triangular Affair," environmental philosopher John Baird Callicott attacks Tom Regan's animal ethics because of its focus on the individual organism rather than on the inherent value and needs of the ecosystem as a whole. Even if the historical rift between these two branches has been bridged—Callicott and Regan have since published together—its traces can be found in other areas of study.

Despite the fact that ecocriticism began to take hold in the early 1990s, it did not seriously ask the "animal question" (Derrida) until almost twenty years later. In his 2011 articles, Lawrence Buell refers (a little naïvely) to "the strange disconnects ... between 'environmentally'-oriented work and other initiatives that at first sight ought to seem more intimately allied," with a "notable case in point" being "animal studies" (105). In the second edition of his Routledge *Ecocriticism*, Greg Garrard extensively reworks the chapter on animals in response to the increasing interest in this field. Such examples of leading ecocritics crossing the "historical rift" is encouraging to say the least.

To continue bridging the gap between these two fields, I will adopt a twofold approach. First, I will move beyond the Anglo-centric history of Animal and Eco Studies that I have been recounting so far, and consider contemporary work being done in French in the field of moral philosophy. My point is not to construct a questionable French exceptionalism, but instead to illustrate that cultural and linguistic diversity is key to rethinking animal-nature-human relations. I will focus on two concepts in particular—le vivant and l'habitabilité—both of which encompass ethical concerns about the livability of planet Earth for a wide diversity of living organisms. Second, I will shift my attention to two contemporary works of French fiction in

order to illustrate the ways in which a transversal poetics cuts across the ecological and the animal. While Didier van Cauwelaert's Le Journal intime d'un arbre (2011) and Jean-Baptiste Del Amo's Règne animal (2016) may first appear to call for a separate poetics—the former referring to a tree and the latter to the animal—they both offer responses to an ethics of le vivant and l'habitabilité. Rather than reducing literature to a single set of morals, my analysis will explore the text's poetics, that is, its making of a world that is livable for some and not others, that is co-habitable for some and not others. Understood in this way, textual poetics is an active, imaginative, embodied practice in which the reader participates.

Minding the Language/Culture Gap

In her article "Wild, Domestic, or Technical: What Status for Animals?" French ethicist Marie-Hélène Parizeau compares the ways in which the animal question has been theorized in Francophone Europe and in North America. French-speaking philosophers such as Florence Burgat and Vinciane Despret do not distinguish between wild and domestic animals as has been the case in North America, where animal rights scholars have taken up the cause of domestic animals because of their concern for individual animal welfare, whereas environmentalists have given greater moral value to the wild animal because of their concern for wilderness. Parizeau convincingly argues that "the philosophical consideration of the animal question is related to the dominant conception of nature, culturally constructed and historically situated" (163). Drawing inspiration from French biologist Georges Chapouthier's nature-culture continuum, Parizeau calls for a "nature and animal" rather than a "nature vs. animal" view. She then highlights the influence of phenomenological thought in France that has given rise to a model of care for the nonhuman world.

While Parizeau helpfully identifies positive developments in the field of animal studies in Francophone Europe, it is important to also acknowledge the negative forces that have brought together thinking about animals and nature in France. In his 1992 book *Le nouvel ordre écologique: l'arbre, l'animal, l'homme*, Luc Ferry castigated eco- and animal philosophies as equal menaces to the philosophical tradition of (French) universal humanism. According to Ferry, deep ecology and animal ethics espouse a dangerous anti-humanist sentiment that can quickly lead to the excesses of fascism and totalitarianism. Despite a reductive (mis) reading of different American, French, and

German philosophies and politics, Ferry's book had a lasting impact on the French intellectual scene, essentially rendering environmental and animal ethics off limits for philosophers for many years. On the flip side, it created an undeniable, albeit negative, association between the animal question and increasingly urgent ecological issues.

To further investigate this association, I am borrowing the term "assemblage" from the French philosophers Gilles Deleuze and Félix Guattari. I do not want to spend an inordinate amount of time discussing their philosophy, especially since they have been given ample attention in the world of Anglophone critical theory already. But I do want to point out how this particular term opens up a way of thinking relationally about animals and nature as provisional bodies (matter coming together in specific forms) and as a constellation of terms (words and discourses with their own specific expression). In *A Thousand Plateaus*, the two thinkers offer the following explanation:

On a first, horizontal, axis, an assemblage comprises two segments, one of content, the other of expression. On the one hand it is a machinic assemblage of bodies, of actions and passions, an intermingling of bodies reacting to one another; on the other hand it is a collective assemblage of enunciation, of acts and statements, of incorporeal transformations attributed to bodies. Then on a vertical axis, the assemblage has both territorial sides, or reterritorialized sides, which stabilize it, and cutting edges of deterritorialization, which carry it away. (88)

Animal and nature assemblages have each produced their own set of bodies, affects, and enunciations in North American philosophy and ethics. But as the title of my paper indicates, I am interested in concepts that assemble eco- and animal concurrently and co-dependently and so do the work of deterritorialization, of which Deleuze and Guattari speak in the second part of the above quote.

Two concepts in particular will retain my attention for the bulk of the paper: *le vivant* and *l'habitabilité*. I am leaving these terms in French because they are, I am arguing, what French philosopher Barbara Cassin calls *untranslatables*. In her introduction to the *Vocabulaire européen des philosophes* (2006), Cassin posits that "untranslatable" does not mean "impossible to translate" (as the translation of the dictionary from French into English and the fact

¹ Cf. for example the work of French philosopher Catherine Larrère who has spoken repeatedly about the censoring effect of Ferry's book and who has worked for many years to bring American environmental philosophy to a French public from a less polemic position. In the field of literary studies, cf. Anne Simon's article on the continued difficulties of raising the animal question in France ("Les études littéraires françaises").

that this paper is in English should make quite obvious). Rather, it refers to a term that requires ongoing, multiple, translations in light of evolving socio-historical contexts:

To speak of untranslatables in no way implies that the terms in question, or the expressions, the syntactical or grammatical turns, are not and cannot be translated: the untranslatable is rather what one keeps on (not) translating. But this indicates that their translation, into one language or another, creates a problem, to the extent of sometimes generating a neologism or imposing a new meaning on an old word. It is a sign of the way in which, from one language to another, neither the words nor the conceptual networks can simply be superimposed. (xvii)

In Cassin's edited dictionary, terms are given in various original languages such as English, French, Greek, German, then listed as translations in other languages and interpreted with respect to the gaps and overlaps of these different meanings. As Cassin explains, the goal of the project is neither to reinforce an "ontological nationalism" (xviii) nor to construct a "logical universalism" for philosophical discourse (xix). Instead, the dictionary defends linguistic diversity on the premise that "each language is a vision of the world that catches another world in its net, that performs a world; and the shared world is less a point of departure than a regulatory principle." It is in a similar spirit of multiplicity "not only among languages but within each language" (xix) that I will be exploring the terms *le vivant* and *l'habitabilité* as eco-animal assemblages.

The "Living" Turn

In his introduction to *Le moment du vivant*, Frédéric Worms identifies a growing preoccupation with the notion of *le vivant* in a host of different disciplines, ranging from the humanities to the sciences. His assessment of this new theoretical preoccupation is difficult to summarize because the term at the heart of his argument—*le vivant*—has no clear equivalent in English. It can mean broadly "the living" encompassing all organisms in the environment, including plants, animals, and humans. It corresponds most closely to the Greek term *Zoe* that means "life," and belongs in the same word group as *Zoon* which means "living creature, being." In the sciences, biology has emerged as the study of life more generally, which is something of a misnomer given that the word *bios* means an individual life. In reality, biology is a kind of *Zoe*-ology in contrast to zoology that studies the specific behavior, physiology, habitat of nonhuman animals, and to anthropology, which focuses on the traditions, rites, practices of human cultures and civilizations.

But such general reflections do not convey the depth and complexity of what Worms essentially deems a "living turn" (as in the "linguistic turn," "material turn," etc.) While he acknowledges that the sciences are redefining le vivant, Worms warns against a reductionist view of the body as made up of neuro-biological processes. For Worms, it is equally important to analyze le vivant from a Foucauldian biopolitical perspective, as a set of socio-cultural practices and discursive formations. Moreover, he counters the notion of life as the binary opposite of death by taking as his short case study the example of Alzheimer's. On the one hand, such a disease is studied in terms of the degeneration of brain functioning and so fits within a scientific paradigm. On the other, it is part of the bio-medical complex that determines diagnoses, treatments, medication, and care facilities. To avoid the (scientific) naturalism vs. (social) constructivism binary, Worms concludes by describing a kind of relational vivant that requires many different social bodies involved in a politics of care for patients suffering from such diseases. Worms calls such an approach "critical vitalism."

Writing a few years before the publication of Worms' edited collection, Corine Pelluchon brings her discipline of moral philosophy to bear on contemporary issues related to *le vivant*. Cutting across the supposed "rift" between animal and environmental ethics, Pelluchon outlines human responsibilities in issues as diverse as intensive factory farming, animal experimentation, job insecurity, social isolation, and the environmental crisis. More generally, she defines *le vivant* as "fragile" and develops an ethics of vulnerability according to which humans are accountable to the human and nonhuman worlds not because of their capabilities but because of their dependencies. While the touchstone of much of moral philosophy is the notion of the autonomous subject, Pelluchon begins with a theory of the broken subject (*Éléments* 212). Even if Pelluchon's emphasis is on human subjects, she asserts that animals, plants, ecosystems, and the biosphere are, like us, part of *le vivant*, whose fragility represents a new ontological category for remaking the foundations of moral philosophy.

Pelluchon further articulates the nature of relational dependencies from the perspective of what she calls a phenomenology of food in her book *Les nourritures*. *Philosophie du corps politique*. To live (*vivre*) is always to live with/from/alongside somebody or someone (*vivre de*), whether this be a good bowl of soup, light, air, films, or social relations (*Nourritures* 17). Ethics start from that which puts me in relationship with other living beings, exposes me to hunger and death, and requires action on my part when faced with the needs of another. Eating instantiates the primary act of existence that

makes one's life dependent upon the lives of others, including that of future generations and other species (358). Pelluchon undoes the nature/culture binary by theorizing bio-physical acts (such as eating an apple) in terms of socio-political relationships (the apple is part of me and vice versa, but also, I have made a choice to eat one kind of life rather than another).² In place of Descartes' famous "I think, therefore I am," we might assert: "We eat and therefore we are (already) (always) other."

If assemblages contain "bodies, actions and passions" on the one hand, and "enunciations, acts and statements" on the other, as Deleuze and Guattari contend, it is helpful to summarize le moment du vivant in these terms. Both Worms and Pelluchon envision the living world as organisms with bodies, as discrete beings embedded in bio-social relationships that are constantly being constituted and reconstituted. Their aim is to rethink le vivant as an essential field within philosophy and ethics.³ Whereas Worms' focus remains on the human, Pelluchon proposes new ontological categories such as vulnerability and incorporation, which include eco- and animal worlds. She opposes the thesis of human exceptionalism, absolute freedom, and the notion of the individualistic subject, calling instead for a new social contract and a reconstructed democracy to protect the biosphere, the interests of future generations, and other living beings. By including humans as living beings dependent upon the living world, le vivant represents a paradigm shift away from the idea of nature as separate from culture that has been at the heart of much of environmental ethics in North America. In this way, it presents a way forward for a non-dualist politics and ethics that asks how life can be made livable for the greatest number of species.

In *Manifeste animaliste. Politiser la cause animale*, Pelluchon develops her position on vegetarianism and the eventual liberation of animals. In an earlier article, she denounces the suffering of factory farm animals but does not align her thinking with that of abolitionists (cf. "Zoopolitique et justice envers les animaux").

I have chosen to focus on Worms and Pelluchon because of their philosophical perspective. However, many scientifically oriented politically engaged texts are also part of le moment du vivant; cf. Henri Atlan's Le vivant post-génomique: ou Qu'est-ce que l'auto-organisation? (2011), Robert Barbault's Au nom du vivant. Plaidoyer pour réconcilier l'homme et la nature (2014), François Letourneux and Nathalie Fontrel's Chroniques du vivant: les aventures de la biodiversité (2014), and Alain Prochiantz's Qu'est-ce que le vivant? (2012).

Life on a Livable Planet

This leads me to my second concept, l'habitabilité. Whereas the verb vivre means to live in the sense of having a body (as an organism or being), the verb habiter refers to living in the sense of having a place. The first verb is more often used intransitively-je vis ("I live")—and so evokes the possibility of autonomous existence (however misleading this may be, as Pelluchon makes clear by using the expression vivre de), while the second verb is more often used transitively—*j'habite une maison* ("I live in a house")—and so places the subject in relation to a location. In this way, le vivant and l'habitabilité are intimately interconnected. For a being to have life, it must be living in a place that sustains life. We might then ask: How is a place made livable? How is the livability of a place increased or decreased? In his article "Répondre du vivant," Roland Schaer responds by outlining a philosophy of care that can be seen in human and nonhuman communities in actions such as parenting the young and creating spaces for those who are sick and dying (330-33). This leads Schaer to the question of how these practices play out in a globalized world (334). In the era of what some are calling the Anthropocene, what living beings contribute to *l'habitabilité* of the planet as a whole? Even if life in the form of bacteria goes on surviving on the planet for millions of years to come, the habitats of many species are drastically changing, leading to what some scientists are calling "the sixth greatest extinction." In light of this reality, how do we articulate a politics of living together and maintaining the live-ability of the planet?

According to Verena Andermatt Conley, French political ecologists such as Michel de Certeau, Félix Guattari, Bruno Latour, and Michel Serres all take up the idea of *l'habitabilité* as a way of critiquing contemporary neoliberal capitalism. But Andermatt Conley focuses on a humanist sense of habitat-making when she asks:

If *habitable* once meant access to a non-alienated way of living the everyday, far from state control and other forms of power, how can we think of it in relation to space at a times when many people do not have access to the experience of an everyday life, understood as a practice not based entirely on subsistence or survival nor so destitute as to be devoid of common and collective symbolic activities? (9)

While Andermatt Conley associates making *habitable* with humans, I want to come back to the notion of *le vivant* that extends *l'habitabilité* to a much larger collection of organisms.

In her book *Ce à quoi nous tenons. Propositions pour une écologie pragmatique*, Émilie Hache addresses head-on the complexities of inhabiting the earth with such a wide variety of other living beings. Although she describes the current ecological crisis as tragic, Hache's tone is the opposite of apocalyptic. A pragmatic ecology seeks to understand current practices in terms of how they give voice to new agents and how they create new publics. Even if Hache defines her approach as *une morale écologique*, she rejects the opposition between animal and environmental ethics. In many respects, she follows in the steps of Bruno Latour, who speaks of *écologiser le monde* to describe the process of constructing a collective with many different forms of nonhuman life (19-21). For Hache, habit-ability becomes a practice of the political, understood as making common things or matters together, humans and nonhumans alike. In constant negotiation, we ask: How many are we? And who are "we"?

In contrast to grand Anthropocene narratives, Hache is attentive to emerging, temporary, nature-culture collectives. She rehabilitates the notion of moral compromise in cases as varied as industrial livestock production, unfaithful husbands infecting their wives with AIDS, and sharing suburban milieus with wild pumas. *L'habitabilité* is clearly not live-ability as in urban planners' ratings of public safety, healthy environments, education, etc.; it is a way in which we learn to *répondre à* ("answer to") and not *répondre de* ("answer for") other species. Whether we are capable of negotiating the live-abilities of so many humans and nonhumans is open to discussion. And yet Hache remains optimistic, citing examples of new publics, new matters of concern that are constantly forming, and leaving the reader with a sense of hope for future heterogeneous livable worlds.

At the same time, Hache acknowledges how complete our dependency on the planet as habitat really is. Taking up the notion of Gaïa, Hache prefers Isabelle Stengers' understanding of nature's indifference to James Lovelock's metaphor of a vengeful nature. Once we recognize that Gaia does not care if the earth becomes uninhabitable for humans, Hache explains, we become aware of our total dependence on so many other forms of life: "Gaïa nous fait réexpérimenter un 'nous' élargi, human et non humain.... Gaïa nous rapproche formidablement des autres mammifères, mais aussi des arbres, des algues, des insectes, de tout/tous ce/ceux qui vit/vivent dans et fabrique/nt notre écosystème" (90). Faced with this new moral experience of our own possible extinction and our closeness to other living beings, we must take on

^{4 &}quot;Gaïa compels us to experiment repeatedly with an expanded human and nonhuman 'we'.... Gaïa brings us incredibly close to other mammals, but also to trees, algae, insects,

what Hache calls "hyperbolic responsibilities" that go beyond our present realities to include the lives of our children and our children's children. It is when moral ethics experience life as dependent upon the living world that they become truly ecological.

Textual Poetics, Textual Politics of Life and Death

In a 2015 interview, Anne Simon explains that she created the term zoopoétique to mean a "poétique du vivant" (122). Her definition reveals the language/ culture gap to which I have been referring throughout this article. In the Anglophone world, zoopoetics has largely been the study of nonhuman animals in poetry and literature (Moe), whereas ecopoetics has been "writing about poetry whose subject is, broadly speaking, ecological" (Hass qtd. in Hume 754). For Simon, the term zoopoétique can theoretically refer to all living beings, including plants and bacteria, and so bridge the gap between zoopoetics and ecopoetics. There is, moreover, overlap between Simon's zoopoétique and Moe's zoopoetics that both emphasize a rendering of animal life not as scientific or realistic representation but instead as a more general force or *élan vital* that moves through a text. For example, Simon speaks of the corporeality of animals that inhabits the text as "rythmes, styles, allures, élans, surgissements" ("rhythms, styles, speeds, forces, surges"; 124). While literary form will play a role in my analysis of Del Amo's *Règne animal* (2016) and van Cauwelaert's Le journal intime d'un arbre (2011), I will not be separating animal from ecological poetics. Following my exploration of the terms le vivant and l'habitabilité, I will examine the ways in which living matter and livable environments are co-constitutive. Moreover, I will illustrate the extent to which the novels intimately bind together the processes of life/nonlife and livability/unlivability.

The titles of the novels might (erroneously) lead the literary scholar to adopt either an animal studies approach or an ecocritical one. Del Amo's epic story highlights the devastating effects of industrial pig farming on a multi-generational family, asking whether humans and animals can ever escape the cycle of violence and oppression brought about by an increasingly profit-driven socio-economic system. Van Cauwelaert's novel, on the other hand, looks at the relationship between a three-hundred-year-old pear tree

to all those living in and making our ecosystem." If not indicated otherwise, all translations from the French are my own.

and the many humans, histories, and events it has known over this long period of time. Given each novel's clear alignment with a specific set of political preoccupations, why adopt the perspective of eco-animal assemblages like *le vivant* and *l'habitabilité*?

A transversal approach allows the literary critic to bring together two novels that may not otherwise be compared. Del Amo's work would most likely be discussed in the context of an emerging genre in France that focuses on the abuses of factory farming and animal-human relations.⁵ In van Cauwelaert's novel, the critique of deforestation and the call for more harmonious relations with the plant world make common cause with plant studies that consider trees as communicative, intelligent living beings. ⁶ By shifting the focus from either the animal or the environmental question to the analysis of eco-animal assemblages, the literary critic cuts across these differences. For example, both novels portray sickness and death as part of the living world and emphasize the deep scars left on humans and nonhumans because of capitalism's exploitation of le vivant.⁷ Rather than being placed solely in the role of the oppressor, humans are destroyed by their own destructive behavior; as part of le vivant, what they do to the living world, they do to themselves. However, in both novels, children serve as possible mediators for reconnecting with the living world: the young autistic boy Jérôme identifies with the suffering animals and the role of death more generally on the farm in Del Amo's novel, while the young girl Manon keeps the toppled pear tree alive by using its wood to create sculptures in van Cauwelaert's novel. The interactions of a future generation with le vivant counter a dominant and dominating anthropocentrism.

⁵ Cf. Olivia Rosenthal's *Que font les rennes après Noël*? (2010), Isabelle Sorente's *180 jours* (2013), and Joy Sorman's *Comme une bête* (2012). Anne Simon's article "Hommes et bêtes à vif" offers an excellent analysis of the portrayal of animal welfare issues in a growing collection of contemporary French novels.

⁶ In the French context, botanist Francis Hallé is well known for his research in this field: Éloge de la plante, pour une nouvelle biologie (1999), Plaidoyer pour l'arbre (2005), Du bon usage des arbres (2011).

In her seminal text *The Posthuman*, feminist philosopher Rosi Braidotti looks at the many biopolitical and necropolitical forms that capitalism has taken to destroy the living world. She nevertheless continues to call for an affirmative politics of *zoe* "as the dynamic, selforganizing structure of life itself" (60).

⁸ I am paraphrasing one of the sections of Isabelle Delannoy's article "On Being Living Beings" that is entitled "What I Do to the Living, I Do to Myself" (140).

In addition, both novels illustrate the principle of *vivre de* (life living from/with/alongside other lives), 9 but they imagine different solutions to the problem of humans exceeding the boundaries of living life. In the case of Del Amo's novel, the pigs' bacterial contamination cannot be contained, and so, in a fit of despair, one of the sons sets fire to all the farm buildings. Not all of the animals are killed, however. The final pages of the novel describe the farm's prized stud pig escaping into the woods, successfully eluding the humans who track him for several days. As for van Cauwelaert's novel, the trees take things into their own hands (or rather, their own leaf and branch systems), developing a chemical hormone reaction to humans as they had done to insect predators in the past. They disseminate cortisol in the air, provoking a deep depression in humans that often leads the latter to suicide. In a deadly feedback loop, the living world takes care of that which is destroying it. The novels illustrate that *le vivant* is not an infinite capacity for life. At some point, excesses are terminated to keep the world livable.

Textual Poetics, Textual Politics of (Un)livable Worlds

The notion of *l'habitabilité* shifts attention to the actual places, the habitats portrayed as livable or unlivable in the stories, but also to the ways in which living beings come together locally and globally in these places. Règne animal centers on a farm near the fictional town of Puy-Larroque, limiting the story to one small geographical area in what has been called "le rural profound" ("rural backcountry"; Mathieu). The farm is just barely livable in the economic sense of meeting the needs of its human inhabitants, even in the late nineteenth century when the story begins. Del Amo's novel underscores the labor, sweat, and suffering of working the land and so refuses the idealization of l'habitabilité. Moreover, the novel illustrates the debilitating effects of a collective in which fewer and fewer humans and nonhumans are allowed to speak. The animals on the farm are reduced to capital as part of the costbenefit machinery that accords no ethical or moral value to their live-ability. The humans are not much better off as they too have bodies deeply scarred by biopolitical control of le vivant. If the novel holds any hope, it is in the power of stories to jolt the reader from their commonly held positions, push-

Despite their clear exploitation of the nonhuman world, humans are nodes in much more complex food chains in both novels. *Le journal* describes in detail the exchanges between insects, bacteria, fungi and trees, while *Règne animal* evokes many kinds of co-constitutive relations on the farm, in the fields, and in the surrounding woods.

ing them to ask where their food comes from and how it is treated before it makes its way to their plate.¹⁰

The emphasis on the local in Del Amo's novel is countered by a global mobility in van Cauwelaert's Le journal intime d'un arbre. While a tree is usually understood as rooted to the ground, the novel presents vegetal life in constant movement, constant interaction with the rest of the living world. It does so by according narrative perspective to the pear tree, Tristan. Although the novel is narrated in the first-person, the tree is able to shift his consciousness to his former trunk, branches, roots, but also to memories and discussions humans are having about him. In addition, Tristan "travels" to the Amazon via the thoughts and dreams of the female character Manon but is not able to "speak for" the trees in the rainforest or compose a global collective with them because he is too permeated with Western scientific rationalism. Despite what may seem like a problematic anthropomorphism, the novel works to undo the notion of a centered consciousness, while still according intentionality and subjectivity to the vegetal world. The story creates a sense of dispersion with seeds of memory and life sprouting up in places around the globe, dating back three hundred years in the past and into an undefined future. The overall effect is not omniscient or holistic, but rhizomatic.

At first glance, *Règne animal* seems much more straightforward in its form, telling the story of four generations of farmers, from 1898 to 1981, whose lives spiral downwards into increasing violence and destruction. Del Amo does not adopt, however, the omniscient narrator of the nineteenth-century naturalist novel; instead, he uses limited third-person perspective, experimenting with italics to convey more directly the thoughts of his characters. The final pages of the novel are, importantly, in italics, and told from the perspective of the escaped hog. In this way, the animal is given the last word to counter the previous silencing of animal voices on the factory farm. But this conclusion solves too quickly the problem of telling stories about human-animal relations. In the middle of the book (which disrupts the story's chronology) and in the only other long passage in italics (which creates a connection to the end of the story), Éléanore decides, as she watches the

Del Amo has asserted his militant veganism on multiple occasions (cf., for example, his association with the group L214 that diffuses videos of illegal slaughterhouse practices in France—https://www.l214.com/). Various critics have noted that a reader would not dare eat pork for several days after reading his novel (cf. Bernard Pivot's "Que des têtes de cochon!"). Fewer comments have been made about the novel's portrayal of the tilling of the soil, which raises questions about food production in the West more generally.

farm buildings burn in the distance, to break her silence and recount the events of her ancestors to her great grandson, Jérôme. She asks:

Comment restituer cette histoire, à la fois si simple et si banale qu'elle en devient vulgaire, mais aussi enchevêtrée, nébuleuse? Comment rendre ce qu'il faudrait percevoir, pour le comprendre, en une vue, non pas sous une forme horizontale, la ligne du récit que je m'apprête à te faire faute de mieux, mais simultanée, à la manière d'un point? (215)

The great grandmother's questions echo the problem of how to narrate *le vivant* given both its everydayness and its rhizomatic complexity.

I do not want to suggest that there is one single form for narrating *le vivant* and *l'habitabilité*. On the contrary, the two novels I have chosen to discuss here adopt a form that is inflected by the subject of the story being told, whether plant, human, or animal matter(s). As Simon suggests, it may very well be because literature has so many different forms that it is best suited to rendering the specificities of *le vivant* ("Qu'est-ce que la zoopoétique?" 116). This brings me back to an earlier quote about each language being a vision of the world and performing a world (Cassin). Literature's diverse genres are embedded in these visions of the world, requiring further differentiation between languages that give expression to various facets of the living world. The point is not to create so many gaps that we are each left standing on our own individual island, but instead to arrive at a kaleidoscope view in which the pieces—words such as *le vivant* and *l'habitabilité* or *die Lebenden* and *Bewohnbarkeit*—are colored by the language being spoken.

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[&]quot;How to reconstruct this story, simple and banal to the point of being mundane, but also entangled, obscure? How to render what must to be perceived all at once, to understand the line of the narrative that I am getting ready to tell you for lack of anything better, not in a horizontal form, but simultaneously, as a single point?"

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Narrating le vivant: the Zoe-Poetical Hypothesis

Prolegomena: Navigating around Words, Labels and Languages

Animal and environmental studies are marked by a wide variety of labels urging anyone engaging with these areas of study to take a stance on the use of relevant terms such as animal studies or zoopoetics, environmental/ green studies or environmental/green humanities, ecocriticism or ecopoetics. Such lexical proliferation arguably attests to a still on-going process of selfdefinition and sharpening of distinctions, including the one between North American and other national academic contexts and methodologies. For instance, the current preference in French academia for the terms "zoo-" and "eco-poetics" over terms like "animal studies," "environmental studies," or "ecocriticism" aims to reaffirm the centrality of the text, while it simultaneously indicates the persistence of formalist inheritance as well as a distancing from cultural studies which is still regarded with a sort of defiance in France.¹ It might also appear as a symptom of a certain uneasiness, which could be explained by the fact that the anthropocentric patterns of Western languages are not entirely suitable for naming the tenets and perspectives which animal and environmental scholars are interested in. In this regard, French philosopher Jacques Derrida's condemnation of the concept of "the animal" in its singular form as misleading, anthropocentric, and ultimately dangerous has become milestone for those who are interested in the question.²

¹ Cf. Simon ("Quelle place pour l'animal"), or Blanc, Chartier, and Pughe.

In his now famous ten-hour address given at the 1997 Cerisy-la-Salle conference, Derrida blamed the term for its anthropocentrism, saying: "[A] notion as general as 'the Animal,' as if all nonhuman living things could be groups without the common sense of this 'commonplace', the Animal, whatever the abyssal differences and structural limits that separate, in the very essence of their being, all 'animals', [is] a name that we would therefore be advised, to begin with, to keep within quotation marks. Confined within this catch-all concept, within this vast encampment of the animal, in this general singular, within the strict enclosure of this definite article ... are all the living things that man does not recognize as his fellow, his neighbors, or his brothers" ("Animal" 402). In Derrida's view, the monolithic concept of "the Animal" then reactivates the dualism in which the thesis of human exceptionalism originates and proves to be inherently loaded with anthropocentrism. Rather, one should talk of "animol"—a portmanteau combining the two French terms animal and mot ("word") as well as phonetically echoing the French plural

The word "environment" has likewise been the subject of similar critiques, although less frequently quoted. As early as 1989, Michel Serres recommended to forget the word "environment" which, coined after the Latin word viron meaning circle, "implies that we human beings are the heart of a complex system in which things evolve around us, center of the universe, masters and owners of nature [and thus] recalls a bygone era when geocentrism reflected our narcissism, as we despised the world" (5). Such criticism was echoed by Cheryll Glotfelty in 1996—"in its connotation, enviror-is anthropocentric and dualistic, implying that we humans are the center, surrounded by everything that is not us, the environment" (xx)—yet it does not seem to have gained a wide audience in the English-speaking world and academia, as evidenced by the numerous "literature and environment" university programs or by the very name of *The Association for the Study of Literature and Environment* (ASLE), unchanged since its foundation in 1992.

The new terminology brought forth by the use of prefixes like "zoo-" and "eco-" surely provides a way to reduce the anthropocentric echoes of older terms. But like the former formulas, it keeps stressing what distinguishes the two fields under scrutiny in this volume rather than it helps us think about the ways which they might share and co-articulate. First, the opposition these labels echo outside the literary field—notably in ethics⁴—tends to map out two different territories suggesting that one would find "animal people" on one side, and "nature people" (those interested in and caring for trees, plants,

narcissisme, manière de mépriser le monde." If not indicated otherwise, all translations

for animal which is animaux—so that homogenization (and its corollary violence) would be avoided: "I would like to have the plural of animals heard in the general singular. There is no animal in the general singular, separated from man by a single indivisible limit. We have to envisage the existence of 'living creatures' whose plurality cannot be assembled within the single feature of an animality that is simply opposed to humanity.... Among non-humans and separate from nonhumans there is an immense multiplicity of other living things that cannot be homogenized, except by means of violence and willingful ignorance, within the category of what is called the animal or animality in general. From the outset there are animals and, let's say, *l'animot*. The confusion of all nonhuman living creatures within the general and common category of the animals is not simply a sin against rigorous thinking, vigilance, lucidity, or empirical authority; it is also a crime" ("Animal" 415-16). "[Le terme d'environnement] suppose que nous autres hommes siégeons au centre d'un système de choses qui gravitent autour de nous, nombrils de l'univers, maîtres et possesseurs de la nature [et] rappelle une ère révolue où le modèle géocentré reflétait notre

from the French are my own.

In English-speaking cultures, the political field historically distinguishes between animal welfare and ethics on the one hand and environmentalism on the other hand. In contrast, the French-speaking world does not duplicate such discrimination (cf. Delanoy).

mountains, rivers, etc.) on the other side, confronting one another with often irreconciliable logics. Most of the time though, the distinction between zoopoetics/zoocriticism and ecopoetics/ecocriticism happens to be formulated in terms of either focus or scale—ecocriticism usually being granted with an interest in larger-scale systems, inclusive of (but not limited to) individual animal organisms. From this point of view, zoopoetics/zoocriticism and ecopoetics/ecocriticism do overlap. However, even with such careful handling of notions, misunderstandings are not far off.

One critical issue appears to lie in the recurring tendency to give priority to specific objects of study in the process of defining fields (e.g., animals for zoopoetics) whereas one of the main contributions of ecological thinking—the one that makes ecology a "subversive science" according to Paul Shepard and Daniel McKinley—is precisely to depart from a substantive ontology of objects and to replace it with an understanding of reality that claims the primacy and prominence of relationships. Insofar as one remembers the original meaning Ernst Haeckel gave the word "ecology" in 1866—that is, "the whole science of the *relations* of the organism to the environment including, in the broad sense, all the 'conditions of existence'" (transl. in Stauffer 140; emphasis added)—the prefix "eco-" stands as a marker of a relational ontology rather than a morpheme referring to natural objects. From this point of view, tensions between zoopoetics and ecopoetics turn out to be not so much about a binary opposition of their objects of study than a discrepancy between two different logics and ontologies (substantive *versus* relational).

Aiming at exploring a permeable relationship between the two fields, I would like to propose the neologism "zoe-poetics" as an alternative label likely to combine the semantic extension of "zoo-"-zoion in plural form, meaning all animated creatures—with the non-substantive, non-discrete perspective that the prefix "eco-" originally refers to. Drawing mostly on the French academic context where animal studies and ecocriticism have developed as

⁵ On this matter, cf., for instance, Callicott, "Animal liberation."

⁶ Cf. Buell, Heise, and Thornber (430-33) or "the borderland ecocriticism shares, mainly amicably, with critical animal studies" mentioned by Garrard (4).

⁷ Cf., for instance, Callicott: "The ontological primacy of objects and the ontological subordination of relationship characteristic of classical Western science is, in fact, reversed in ecology. Ecological relationships determine the nature of organisms rather than the other way around" (*Defense* 87).

That meaning was lost in the English use of "ecology" according to David R. Keller and Frank B. Golley who argue that "the term's broad current usage reflects little of its origin as it has turned into a synonym for nature or environment" (3).

(206).

a joint project, ⁹ I will first define and characterize theoretically "zoepoetics" as a poetics the object of which is not animals or environments but *le vivant*, understood as a name endorsing an eco-ontological view of all living creatures. I will argue that promoting such an integrative (albeit selective) approach ultimately allows to enlighten the critical power which zoo-poetics and eco-poetics can share in terms of a posthumanist discourse that not only challenges the idea of human exceptionalism but also the myth of man's autonomy. Finally, I will examine one of the few practical challenges *zoepoetics* may pose when considering the issue of narrative representation by looking at French contemporary writer Éric Chevillard's *Sans l'orang-outan*.

Zoe and le vivant: Contributions from Ancient Greek and French Languages

At the end of the last century, Giorgio Agamben (3-15) reminded a large audience that the Greeks had two different names for the one and only "life": *bios* and *zoe*. Although one cannot but credit the Italian philosopher for bringing back to light such a widely forgotten distinction, the way he framed it has endorsed the equation of *zoe* and "bare life," understood as a somehow reduced, lesser, excluded form of life in the context of biopolitics.¹⁰ However, a valuable 1976 essay about Dionysian worship by the mythologist Karl Kerényi reminds us of the original distinction between *zoe* and *bios*:

The word $zo\ddot{e}$... resounds with the life of living creatures. The significance of $zo\ddot{e}$ is life in general, without further characterization. When the word bios is uttered, something else resounds: the contours, as it were, the characteristic traits of a specified life, the outlines that distinguish one living thing from another.... If I may employ an image for the relationship between [bios and $zo\ddot{e}$], ... $zo\ddot{e}$ is the thread upon which every individual bios is strung like a bead, and which, in contrast to bios, can be conceived of only as endless (xxxii, xxxv).

Because such a definition emphasizes the contrast between *bios* as the name for a distinct, separated life on the one hand and *zoe* used to refer to a continuous life that evades differentiation in time and space as well as on a

Gf. Simon ("Animality"): "[R]esearch in France has tended, from the start of its reflections on animality, to connect this question to the environmental question, whereas in the English-speaking world, animal studies and ecocriticism have developed separately" (79).
 Cf. the criticism formulated by Derrida in his last seminar *The Beast and the Sovereign* (315-33); or Rosi Braidotti's reprobation about "the being-aliveness of the subject (zoè) [being] identified with its perishability, its propensity and vulnerability to death and extinction"

metaphysical level (zoe does not draw lines between any of the living creatures according to their alleged spiritual nature) on the other, it allows us to regard it as a proto-Darwinian and proto-ecological concept endorsing a non-discrete view on life—a perspective also conveyed by le vivant in contemporary scientific discourse. If the concept-which Barbara Cassin described as untranslatable¹¹-is hard to define, it is indeed currently understood as the name for the specific topic life sciences are preoccupied with. It has thus spread since the sixties as a way to depart from the vitalism still implied by "la vie" which is considered, in its substantive form, as a "metaphysical residue inherited from old-fashioned theological and animist doctrines despised by positive sciences" (Hoquet 15) and incrementally expelled as such by modern biosciences. 13 Instead, the term le vivant now encapsulates a post-Darwinian view on life which takes ecological aspects into account but also tries to distance itself from any metaphysical, historical and synchronic separations between all organisms; a distancing which the ancient Greek zoe, by insisting on the pattern of indistinctness, had actually been anticipating.

Both *zoe* and *le vivant* then support a vision that not only challenges anthropocentrism (as well as zoocentrism and its coterminous exclusion of mushrooms, bacteria and plants) insofar as it aims not to distinguish between animate beings but which also questions what has been demeaned by British philosopher Anthony Quinton as an obsolete Newtonian ontology:

In [the Newtonian conception] the world consists of an array of precisely demarcated individual things or substances, which preserve their identity through time, occupy definite positions in space, have their own essential natures independently of their relations to anything else, and fall into clearly distinct natural kinds. Such a world resembles a warehouse of automobile parts. (qtd. in Callicott, *Defense* 105)

By contrast, and despite the representations language imprint upon our minds, a genuine ecological vision intends to blur boundaries:

Because we learn to talk at the same time we learn to think, our language, for example, encourages us to see ourselves—or a plant or animal—as an isolated sack, a thing, a contained self. Ecological thinking, on the other hand, requires a kind of vision across boundaries. The epidermis of the skin is ecologically like a pond surface or a forest soil, not a shell so much as a delicate interpenetration. (Shepard 2)

¹¹ Compare also Stephanie Posthumus' contribution in this volume.

[&]quot;[L]a vie elle-même n'est plus qu'un nom, scorie métaphysique héritée des doctrines théologiques et d'un animisme dont la science positive n'a que faire" (Hoquet 15).

French physician Claude Bernard, pioneer of modern biology and medicine, thus had unambiguously claimed (291): "la vie n'est qu'un mot qui veut dire ignorance."

Here, one again finds the vocabulary already used by Kerényi to describe *zoe* and depicting life as a mesh (cf. Morton 15) that cannot be confined to the *punctum* of any individual organism. Assuming a non-discrete concept of life, *le vivant* attempts to avoid the tendency to essentialize separate objects, which is still implicit in terms such as "nature," "animal," or "environment." Therefore, a *zoepoetics* may stand as including *zoion* and *eco* to the extent that it endorses a non-Newtonian, non-essentialist and ultimately non-discrete ontology. As Stephanie Posthumus suggested in a talk given at the University of Angers in May 2015 (to be published), one may arguably contend that the concept of *le vivant* enables to develop an ecocriticism that focuses less on differences, pointing out an alternative way likely to reduce the gap between animal studies and ecocriticism in the English-speaking world.

Experimenting with Non-Discretion: The Example of Éric Chevillard's Sans l'orang-outan

When confronting such a theoretical framework with the study of literary texts, one is nonetheless back in a deadlock situation. Is not the faculty to distinguish and draw lines indeed the very condition for figurative representation? Is individuality not the very premise shaping characters? In his etymological survey, Kerényi hence noticed that *bios*, not *zoe*, is the one and only life that can be told in narratives: "Bios [is] the content of each individual man's written and unwritten biography." In contrast to that, *zoe* is "the life with which biology first begins," intended to be explored by science but inherently out of the reach of literary narratives: "The experience of that life which resounded for the Greeks in the word *zoë* is, on the other hand, indescribable" (xxxv). Yet, the neologism *zoepoetics* aims at challenging such epistemic division, emphasizing the creativity of literary language to invent successful ways to represent *le vivant* as a non-discrete form of life that cuts across time and space.

Contemporary French writer Eric Chevillard's *Sans l'orang-outan*, published in 2007, provides an accurate albeit extreme example of the issues raised by ecological ontology, especially when it comes to the representation of (human and nonhuman) animals. The book takes its reader to the moment of the (still) imaginary extinction of the great apes that gives the novel its title, the two last specimens of which have just died at the opening of the

On this issue of Western conceptions of literary characters being patterned after a Cartesian view of the self as an autonomous and self-reflexive *ego*, cf. Boerher 9-10.

tale. Yet such a disappearance is not described as creating an absence as much as it turns out to affect the human protagonists in their own bodies. To exist without orangutans is to exist "without arms or legs, as if one would suddenly suffer an amputation of several limbs" (Chevillard 16). The whole first part of the narrative is thus dedicated to register the metamorphosis human bodies and existences go through, disclosing in a negative way the solidarity that used to bind orangutans and *Homo sapiens* together:

[W]e are meant to live with orangutans, on one territory where we share the work, where we exchange favors and expertise in constant interaction. For we share the same destiny for eternity. If one of us is missing, the other one then loses half of his limbs whereas his task becomes twice as big. Here he is: A hemiplegic man asked to hull green peas. ¹⁶ (Chevillard 153)

In other words, the ape had been coterminous to the human being whose self had never been autonomous—it used to be merged with the self of the animal and *vice versa*. In that respect, Chevillard's narrative endorses a view of identity and individuality consistent with the axioms of deep ecology: "[O]ne's *own self* is no longer adequately delimited by the personal ego or the organism" (Naess 174). In this book, Chevillard does picture his human protagonists as outlined, discrete, separated figures isolated from other animals, but this condition is concomitantly displayed as the pathological result of a decomposition, as the by-product of fateful cut into the continuous entanglement of life: "Our body experiments with all the ways to be crippled—and there are a lot of ways" (22).

Reversing the old nineteenth-century anxiety about hybridity that took hold of literary narratives in the wake of the Darwinian revolution, ¹⁸ Chevillard then displays the experience of purity as a negative one. In his narrative, human beings resent their only-human bodies. They are coping with an ontological solipsism emphasized through the use of many phrases referring to the newly autotelic human condition: "I can slap myself, twist my own

^{15 &}quot;[S]ans bras ni jambes [et] être amputé soudain de bien des membres."

[&]quot;[N]ous sommes faits pour vivre dans la compagnie de l'orang-outan, sur un territoire où nous partageons les tâches, où nous échangeons services et compétences, dans une interaction constante. Nos destins sont liés de toute éternité. Si l'un de nous manque, l'autre du même coup perd la moitié de ses membres tandis que double sa besogne. Voilà l'hémiplégique mis à écosser les petits pois."

[&]quot;Notre corps expérimente toutes les façons d'être infirme, il y en a."
On this point, see Richter as well as Stead 296-327.

nose, there is no one but me within my reach"¹⁹ (17); "a body full of pain, as if our hands couldn't but wring each other and our teeth couldn't but crack our teeth"²⁰ (35). The first person (singular and plural) refers to both a grammatical subject and a grammatical object, while the text describes such a first-person-omnipresence as the product of a loss. *Sans l'orang-outan* thus depicts a genuine anthropo-egocentric narrowing down of the self, reterritorialized within the circumscribed boundaries of single body:

But here we are, limited to short movements, to movements close to the body, to self-care. As far as I stretch my arms, I cannot but touch myself again, stroke myself, polish myself.... This body of mine that was opening up spaces for me is now crawling, it does not get out of its rut anymore. Formerly, it seemed to me that I could leave my body behind, my reach was large enough so that I would keep the distance and be able to look and wander elsewhere. I was scratching other backs than my own.... 21 (158)

Having lost its ties to others and its ecosystemic "reach," the protagonist becomes static. The name he is given—"Moindre," which means "smaller, reduced" in French—ultimately confirms his status as the monstrous outcome of a disjunctive anthropogenesis that in fact allows the narrative figuration. Here, literary representation is achieved through the tearing apart of what was once unseparated, arousing "dread" ("effroi"; 23) and "horrified astonishment" ("stupeur horrifiée"; 35). The text implicates the traditional poetics of the novel which distinguish between human and nonhuman characters as a prerequisite, yet simultaneously discloses these poetics as corrupt.

In this respect, the last part of the text is worth mentioning. Although the text finally focuses on Moindre and a few acolytes seeking a way to resurrect orangutans in the human body by embracing ethological modes of existence similar to those of the orangutans (an arboreal way of life, brachiation, a frugivorous diet and so on), success will come not from these attempts—which the narrative voice derides—but from another nonhuman animal, namely a tiger. At some point, Moindre decides to unleash a tiger on his

 $^{^{19}}$ "Je peux me gifler, me tordre le nez, il n'y a plus que moi à portée de ma main."

^{20 &}quot;[U]n corps de douleur, comme si nos mains ne savaient plus que se tordre l'une l'autre, et nos dents briser nos dents."

[&]quot;Mais nous voici réduits aux gestes courts, aux gestes près du corps, au soin de soi. Si loin que j'étende le bras, je ne peux que me tâter encore, me caresser, me polir.... Ce corps qui m'ouvrait l'espace se traîne, il ne sort plus de son ornière. Avant, il me semble que je laissais parfois ma dépouille derrière moi, j'avais assez d'allonge pour tenir la distance et aller voir ailleurs. Je grattais d'autres dos que le mien...."

fellows as a test to reveal how good they prove as orangutans, and the feline devours half of the troupe. Moindre then ironically takes the outcome as a success of those who died, offering the following laudatory eulogy for them: "[T]he tiger regarded you as equal to an orangutans group. He didn't see any substantial difference. His deadly attack also stands as a tribute to our efforts and results, you can legitimately feel honored"22 (179, emphasis added). Under the veil of humor, an earnest discourse about the myth of human distinction and its process of self-validation can be recognized. Following Darwin's argument that "if man had not been his own classifier, he would never have thought of founding a separate order for his own reception" (191), the shift in perspective from human to tiger eliminates the possibility of discrimination between species. From the point of view of the tiger who ate the character named Karpoff "like he would have done with an orangutan, starting with the middle and the flanks and without expressing any surprise or repugnance" (181), human beings are just apes whose meat is the same as-and is confused with-that of orangutans. On a symbolical level, the nonhuman animal then appears as a repository figure of an unprompted, undifferentiated view on life and living creatures, which not only dismisses human exceptionalism but also allegorically enables human protagonists to revive their lost solidarity with the extinct apes. In other words, the tiger's ontology does not make a difference, thus enabling a pattern of indiscrete permeability to find its way back into the poetics of the text.

Furthermore, confusion ends up spreading in the minds of the survivors. As they carry out efforts to become orangutans and because of the absence of the original model, they happen to forget which behaviors were allegedly specific to great apes and which were specific to human beings: "And now everything gets clouded and blurry and we cannot judge anything anymore" (183). Such a global loss of discernment then infects not only the narrator of the text but also the disoriented reader, ultimately proving Chevillard's poetics if not Moindre's anthropo-zoomorphic enterprise as an effective project.

[&]quot;[L]e tigre vous a considérés à l'égal d'un groupe d'orang-outans. Il n'a point perçu de différence significative. Sa charge meurtrière est aussi un hommage à nos efforts et à nos résultats, vous pouvez à bon droit vous sentir honorés."

^{23 &}quot;[C]omme il eût fait d'un orang-outang, en commençant par le centre et les flancs et sans marquer de surprise ou de dégoût."

^{24 &}quot;Voilà que tout se brouille et s'embrouille et nous ne pouvons plus juger de rien."

Conclusion

Chevillard's text ultimately points towards a poetics likely to endorse a genuine ecological view on animated life as yet-to-come. Nonetheless, other works might have been examined which are less aporetic. The experiment with a loss of boundaries Clarice Lispector depicts in her protagonist's meeting with a cockroach in A Paixão segundo G.H (1964); Kurt Vonnegut's fantasies of a devolution process undoing disjunctive anthropogenesis in Galápagos (1985); Jim Crace's depiction of an immanent afterlife through ecological transubstantiation in Being Dead (1999): all these works strive to highlight and narrate the prominence of ecological connections between all living organisms. By doing so, they provide convincing examples of how the so-called "animal question" can be raised from an ecological perspective, and encourage us, as critics, not to think of the two fields of zoo- and eco-poetics as separated ones.

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Action, Framework, and the Poetics of "Co-Making": A Testing Device for Ecological Narratives

The Law of Ecology and the Precept of Ecological Texts

The following considerations are dedicated to the question of how ecological fabrics, i.e., structures (in)formed by ecological principles, can be narrated. My starting point is the first law of ecology formulated by Barry Commoner in *The Closing Circle* (1971), and the first precept of ecologically oriented texts Lawrence Buell describes in *The Environmental Imagination* (1995). Commoner and Buell both name four aspects to mark their understanding of ecology and ecologically oriented texts respectively. All these aspects deserve a closer look, but I will focus my considerations in each case on the first point.

Commoner's first law of ecology reads as follows: "Everything Is Connected to Everything Else" (33). Based on this, an ecological fabric is primarily distinguished by complexity: Ecological fabrics are assemblies of "different living organisms, and between populations, species, and individual organisms and their physico-chemical surroundings," which all together constitute an "elaborate network of interconnections in the ecosphere" (33). Furthermore, Commoner sees ecological fabrics as controlled by a cybernetic system that operates through the processes of a stable instability, for example in the relationship of predators and prey. However, an anomalous imbalance in this relationship can cause the "collapse" (35) of the whole ecological fabric; usually this is triggered through "external effect[s]," since for the self-regulation-processes of the ecological fabric it is more difficult to keep these unfamiliar factors—in particular the influence of man—"in balance" (36). Finally, it is important that the examination of the entanglements of ecological fabrics can take place on different levels of complexity. For instance, the relationship of predator and prey depends on a series of other factors of interrelations which Commoner illustrates with the metaphor of the net:

Most ecosystems are so complex that the cycles are not simple circular paths, but are crisscrossed with branches to form a network or a fabric of interconnections.

¹ To be precise, Buell speaks of an "environmentally oriented work" (7). For the distinction between the prefixes "eco-" and "enviro-," cf. Bühler 34-35.

Like a net, in which each knot is connected to others by several strands, such a fabric can resist collapse better than a simple, unbranched circle of threads—which if cut anywhere breaks down as a whole." (38)

For Commoner the complex interrelations between heterogeneous entities are a mark of stability. By contrast, "[e]nvironmental pollution" is mainly due to the fact that the ecological fabric "has been artificially simplified and made more vulnerable to stress and to final collapse" (38).

Buell's first precept of ecologically or rather "environmentally oriented work[s]" in turn reads as follows: "The nonhuman environment is present not merely as a framing device but as a presence that begins to suggest that human history is implicated in natural history" (7). Central to Buell's argument is a rewriting of American history, a reassessment of events, texts, and ideas that are less concerned with human relations but rather with the relations of people and their environment. The environment thus takes on the role of a historical actor—it shapes the course of history and is at the same time shaped by historical processes. Therefore, the environment is not just the decorative backdrop, "the framing device," of "human history" (7). However, the question arises whether and, if so, how texts conceptualize the role of the environment as an active agent.

In this context Buell differentiates between two poles—the representation of environmental issues is "at least faintly present in most texts but salient in few" (7). Buell's distinction points towards the fact that in most fictional and nonfictional texts nonhuman entities are neither the main focus of representation nor active forces of historical processes. Rather textual representation is aligned with the creation of a setting for the drama of man. Buell explains the outlined distinction with recourse to his first precept as well as to some examples. On the one hand, Charles Dickens' *Martin Chuzzlewit* "barely qualifies [as an environmentally oriented work], since the American West is little more than a backdrop for Martin's picaresque misadventures" (7). On the other hand, "E. M. Forster's *Passage to India* clearly would, for it reflects at every level a version of the theory of determinism by climate posited by discredited police commissioner MacBryde: Forster seems seriously to consider that difference in latitude shapes emotions, behavior, art" (7).

With Commoner's first law and Buell's first precept, two consequences for an ecological narrative become visible. First, ecological narratives have to demonstrate the complex relationships between heterogeneous entities. Second, this leads to the abandonment of the distinction between foreground and background, as well as between action and framework, which are fundamentally organized by the difference between (active) human and (passive) nonhuman beings. In order to continue these considerations, I will proceed

from the concepts of ecopoetics und zoopoetics and one of their central features—the "co-making" of humans and nonhumans. Afterwards I will try to develop a kind of testing device for ecological narratives, namely on the ground of a conjunction of actor-network-theory and narratology. Finally, I will explain this testing device on the basis of two novels from the genre of *Heimatliteratur*.

Ecopoetics, Zoopoetics and "Co-Making"

Reflection on the forms of ecological narratives seems important to me not least because the founding texts for the concepts of ecopoetics and zoopoetics frequently refer to a different literary genre: lyrical poetry.² To track the link of eco- and zoopoetics with lyrical poetry for a moment, I draw on one example-the German nature poet Wilhelm Lehmann (1882-1967). Lehmann is a co-founder of the Naturmagische Schule and his poems and essays have been influential for the post-war generation of German (nature) poets like Günter Eich and Peter Huchel. Although in the second half of the twentieth century Lehmann's poems and essays have been gradually superseded by a more politically oriented poetry in the tradition of Bertolt Brecht, it is nonetheless fair to say that an ecocritical rediscovery of his texts has taken place recently.³ I will only focus on two aspects of Lehmann's theory of nature poetry. First, Lehmann understands poems as ecological fabrics. Here, too, everything (i.e., every word) is connected to everything else, and the creation of an "equilibrium" is the "highest achievement of poetry which does not allow a judgment like: in any poem this or that single line delights the reader, because all singularity loses itself into the whole like the leaf into the tree" (301). Second, Lehmann repeatedly emphasizes the moment of the world, for example in the shape of the cuckoo, articulating itself in

This applies at least to the research contributions of Scigaj, Gilcrest, and Moe, which are briefly considered in my following argumentation.

³ For example, since 2005 the Wallstein Verlag has published a *Wilhelm-Lehmann-Yearbook* under the title "Sichtbare Zeit."

^{4 &}quot;Solches Gleichgewicht, wobei weder das eine noch das andere sich vordrängt, ist die höchste Leistung der Dichtung, die dann ein Urteil wie: an irgendeinem Gedicht freue diese oder jene Zeile, gar nicht erlaubt, weil alle Einzelheit sich in das Ganze wie das Blatt in den Baum verliert." If not indicated otherwise, all translations from the German are my own.

poetry—"Poetry is everywhere onomatopoeia ..."⁵ (304). What Lehmann is expressing here is poetry's rejection of the "generalizing tendency" of language which leads—due to its terms in the collective singular ("man," "tree," "animal")—to a restriction of "the abundance of beings and things" (347). Poetic language is thus directed towards the concrete and the unique; it works in language against language, and in this way it fulfills, according to Lehmann's poetical concept, the function of ecological compensation: "The sewage of civilization, politics, technology, commerce are increasingly contaminating meaning and language. A successful poem is the best disinfectant against such pollution" (354).

These brief reflections should suffice as a hint at the fact that each literary genre has its own ecological dimension which needs to be examined by investigating representatives, as well as the poetology, of a genre. In the context of this article, I will focus my considerations on the ecological dimension of narrative texts.

However, with regard to Lehmann's poetry theory, it should be added that it is quite remarkable that he understands poetic language—together with its attention to the relationship of the individual and the whole, its sense for the concrete and the unique, and its compensatory function against the contamination of civilization—as a form of dwelling in the world. Thus, Lehmann's texts are located in a close proximity to Martin Heidegger's reflections on poetry and dwelling which he found, for instance, in the poems of Friedrich Hölderlin. Beyond that, Heidegger's reflections on this topic are a central, albeit critical reference point for the theories of ecopoetics (Bühler 142-46). I will now examine theories of ecopoetics in more detail and link them with theories of zoopoetics in order to present an explanation concerning the genre of "ecological narrative" and to discuss how such narratives can be investigated with the means literary studies provide.

Primarily, it is important to consider that the terms ecopoetics and zoopoetics are both to be understood in a double sense. On the one hand, the

^{5 &}quot;So leicht allerdings wie der Kuckuck, der uns selbst seinen Namen souffliert, macht es uns der übrige Welthausrat nicht, aber Dichtung ist überall Onomatopöie und lockt selbst dem Schweigen Stimme ab."

^{6 &}quot;Der Sprache wohnt als solcher eine verallgemeinernde Tendenz inne: in weitester Abstraktheit kann sie, mit Vernachlässigung der Einzelheit, sehr ausgebildet, die Fülle der Wesen und Dinge in 'Mensch', 'Baum', 'Tier' abkürzen."

[&]quot;Solches Gleichgewicht, wobei weder das eine noch das andere sich vordrängt, ist die höchste Leistung der Dichtung, die dann ein Urteil wie: an irgendeinem Gedicht freue diese oder jene Zeile, gar nicht erlaubt, weil alle Einzelheit sich in das Ganze wie das Blatt in den Baum verliert."

terms are applied to literary, essayistic and theoretical texts dealing with the topics of ecology and animals. On the other hand, ecopoetics and zoopoetics are different, but closely related methodological concepts that serve to focus upon ecological and animal issues in literary, essayistic, and theoretical texts. It is common that these ecopoetical and zoopoetical studies tend to challenge "traditional" research contributions, which are often characterized by anthropocentric orientations as well as a systematic neglect of ecological and animal issues. For the combination of both understandings of each term one could say that ecopoetically and zoopoetically oriented studies aim to establish a canon of texts which are primarily concerned with the topics of ecology and animals. However, this raises the question for the criteria of these texts.⁸

In the founding studies of ecocriticism, a number of observations concerning these criteria can be found. First, scholars have often mentioned that ecopoetical literature establishes a contiguity between human poetry and the "poetry of nature" (Rigby 79; Kopisch 51-52). A typical rhetorical device for this contiguity is onomatopoeia also highlighted by Wilhelm Lehmann. Second, scholars of ecocriticism underline that ecopoetical literature is characterized by a specific "situatedness" that reflects the relationship between experience and expression, world and word (cf. Scigaj 38; Rigby 80; Gilcrest 3). Furthermore, for Leonard M. Scigaj the ecopoetical reflection on that situatedness is a means of representation in which "nature is not dominated, reduced to immanence, or reduced to a reliably benign aesthetic backdrop for anthropocentric concerns" (80). Third, related to the ecopoetical purpose of not separating human and nonhuman beings via the oppositions of subject and object, action and framework, foreground and background, one can see a close relationship of ecology and poetics respectively *poiesis* in a double sense. On the one hand, for David W. Gilcrest, "ecology, inasmuch as it is a concept that appears in many types of texts, is an artistic creation, the result of a poetics (poieein: to do or make)" (12). Ecology as a textual concept, therefore, is made by rhetorical and poetical strategies—and the result of this "making" is the "ecologized text" (12). On the other hand, Kate Rigby emphasizes-against an understanding of this rhetorical and textual "making" in an anthropocentric sense-that "[m]aking is by no means an exclusively human practice. Many other species make things, some of which display not only high levels of craftsmanship but also an aesthetic sensibility" (79).

⁸ For the following considerations, cf. also the introduction of this volume.

Just like ecopoetics combines ecology and poetics, zoopoetics hinges on the notion of a linkage between animals and poetics in a double sense. "Zoopoetics," Kári Driscoll writes, "always involves the question of zoopoiesis, of the creation of the animal as much as the creation by means of the animal" (223). Again, the process of making is decisive. On the one hand, animals are products of human's imaginative and technical prowess, on the other hand, animals have their own powers to make and create—therefore animals likewise are patients and agents of poetics and poiesis. Aaron Moe also emphasizes the double-sidedness of animals and poetics/poiesis. Furthermore, he explicitly highlights the fact that humans and animals are interrelated in a process of "co-making" (2). According to Moe, the task of zoopoetical scholarship is to locate the animated animals in the allegedly dead letters of poetry in order to reconstruct the process of co-making, into which the poets have insight—unlike the literary scholars who still refuse to acknowledge the power of making that animals possess and exclude them from poetics/poiesis.

Following the outlined research contributions, I would suggest that the concept of "co-making" is of central importance for a theory of ecopoetics und zoopoetics. And it is precisely the idea of a common activity of human and nonhuman beings where one can find the key for a kind of literature that follows Commoner's first law of ecology and Buell's first precept of ecologically oriented works. "Co-making" means that all entities are interrelated and that therefore it is not possible to distinguish between "human history" on the one hand and its nonhuman, so-called "framing device," on the other hand. Hence, ecopoetics and zoopoetics are fundamentally grounded in the belief that heterogeneous entities are co-makers.

To sum up the previous observations, it should be underlined that animals are of central relevance for the (literary) study of ecology, because in their case the processes of co-making become particularly evident. Therefore, animals are a privileged object of ecologically oriented research; they represent—together with their proximity to human beings, their unquestionable ability to suffer, and the fact that they are often conceived as both living beings and semiotic figures an epistemological, ethical and aesthetical challenge for literary theory located in the field of ecocriticism. Furthermore, it is notable that the examination of the co-making processes involving heterogeneous entities can take place on three different levels: first, the level of text production—here one has to take into account the poet's experience in the process of the creation of an artwork, Moe speaks of the animation by the "energy of animal poiesis" (10); second, the level of the text itself—here, one has to ask whether and how the text puts on scene the processes of

co-making; and third, the level of text reception—here one has to consider whether and how the energy of co-making stored in the text leads the recipient to an enhanced attention towards the ecological processes in his or her non-textual environment. At this point, I cannot investigate all these deliberations more closely. Instead, I will focus on the figuration and examination of the processes of co-making in narrative texts.

Ecological Narratives

In the previous section, I have initially highlighted poetry as a privileged medium of ecopoetics and zoopoetics. I have done this due to the observation that the literary scholars aforementioned (Scigaj, Gilcrest, and Moe, in particular) develop their theoretical designs frequently based on lyrical poetry. Nevertheless, texts written in prose are equally important for ecopoetical and zoopoetical issues—one just needs to think of the genre of nature writing, to which a vast number of research contributions is available (cf., e.g., Finch/Elder). However, nature writing must also be distinguished from another genre written in prose and dealing with ecological issues, namely: ecological narrative. S. K. Robisch describes the distinction between nature writing and ecological narrative as follows:

Nature writing is most often based on observation and rumination, offering the reader a view of a place and/or species that include both research and personal response. The work demands the reader's participation—to go and see, to experience, to negotiate the writer's perception with the reader's own. Ecological narrative, on the other hand, is less apparently driven by activist or scientific concerns, even by particularly ecological ones. The reader finds and emphasizes the influence of the nonhuman world on all aspects of the text. (178)

Following Robisch's juxtaposition, nature writing and ecological narrative can be distinguished based on the assumption that nature writing is marked by an essayistic, biographical trait, and the clear display of a scientific orientation. By contrast, ecological narrative can be characterized by the fact that it makes the "nonhuman world" the central topic of the text, and this happens particularly in a way that gives the nonhuman entities "the significance they deserve as physical facts acting upon plot and character, rather than treating them as mere setting or backdrop" (Robisch 184). Following this explanation, it is decisive for this genre to render the nonhuman entities in a way that shows their power to make—and Robisch expressly highlights the animals as constitutive nonhuman figures of ecological narratives (188-89).

Thus, ecological narratives are characterized—once again strictly in the sense of Commoner's first law of ecology and Buell's first precept of ecologically oriented works—by the interrelatedness of all entities, may they be human or nonhuman. That means that ecological narratives conceptualize all these heterogeneous entities without any qualitative hierarchy; instead, all entities are situated on the same level.

In reference to Bruno Latour and *actor-network-theory*, human and nonhuman entities can be described as actors. It is no surprise in this context that Latour approaches the dichotomies of action and framework, foreground and background as well. He writes: "Tradition refused them [the nonhuman entities] this label [as social actors], in order to reserve it for subjects whose course of action took place in a world—a framework, an environment—of things" (*Politics of Nature* 76). Like the scholars of ecopoetics and zoopoetics, Latour challenges the distinction between human beings as active forces on the one hand, and nonhuman beings as a framework or environment of human actions on the other hand. Beyond that, the aim of Latour's political ecology is also very similar to the theories of ecopoetics and zoopoetics—he wants to replace the traditional division, the "great divide," by a new division, in which "social actors" are associated "with other social actors," whether they are human or not (77).

For the purpose of this chapter, there is no need to discuss in detail Latour's strategies of composing and legitimatizing his symmetrical ontology. Rather it is crucial for me that Latour—while he emphasizes the actor status of human and nonhuman beings and thus subverts the outlined traditional distinctions-draws on a terminology borrowed from literary studies, especially from narratology (cf. also Latour, Reassembling the Social 43-62). This eventually leads to my final and crucial considerations. With recourse to Commoner and Buell I have already tried to show that ecology is nearly synonymous with complexity and that an ecological text (insofar as it deserves this name) is characterized by representing this complexity in content and form. In case of narrative texts-for other genres it would be necessary to develop other approaches-this would be realized by shaping the nonhuman beings neither as backdrop and decoration of the human history nor by using them for generating a special kind of atmosphere or characterizing the human characters in an indirect way. Instead, it is a key point of ecological narratives that human and nonhuman beings are both driving forces of the

⁹ Roland Barthes labeled these narrative units, which do not contribute to the action of the narrative, "indices" (246).

plot—hence, humans and nonhumans likewise have to figure as co-makers or co-actors. However, the question remains how scholars can grasp and analyze the degree of narrated ecological complexity.

Testing Device and Heimatliteratur

In the ending paragraphs I would like to propose a kind of testing device for the evaluation of the complexity of narrated ecological fabrics. The distinctions between action and framework, foreground and background correspond with the narratology's distinction between "story" and "diegesis," pivotal for the structure of narrative texts. Gérard Genette outlines this distinction in *Palimpsests*:

The story told by a narrative ... is a concatenation, or sometimes more primitively a succession, of events and/or actions; the diegesis, in the meaning suggested by the inventor of the term (Etienne Souriau, if I am not mistaken), which is the meaning I shall be using here, is the world wherein the story occurs. (295)

The distinction between story and diegesis is valuable with regard to a classification of narrative units—for example one might ask whether a narrative unit contributes to the action or rather to the construction of the fictional world. Genette, though, is primarily interested in the differentiation of story and diegesis in relation to his theory of intertextuality in *Palimpsests*. However, under a willful neglect of Genette's research intention, it is this differentiation I want to highlight as a useful concept for the examination of ecological narratives. In the context of his theory of intertextuality, Genette describes among other topics the literary procedure of "diegetic transposition," by which he means the transfer of an action from a *hypotext* into a *hypertext*—and in this process, the transferred action remains nearly constant in both texts, while the diegesis, by contrast, changes fundamentally. Genette explains this procedure as follows:

Whether it be fictional or historical, the action of a narrative ... is aptly said to 'unfold' usually within a more or less specific spatiotemporal framework: in archaic or legendary Greece, at King Fernando's Court, or in Russia of Napoleonic times. This historical-geographical setting is *inter alia* what I call the diegesis, and it is obvious enough, I hope, that an action can be transposed from one period to another, or from one location to another, or both. Such a diegetic transposition—let us call it, for brevity's sake (not beauty's) *transdiegetization*—can of course not occur without at least some changes in the action itself. (296)

Following Genette, the decisive aspect of "diegetic transposition" is the removal of an action from its original environment and its repositioning in a new environment. It is precisely this procedure I would like to render as a testing device for the ecological dimension of narrative texts. Genette himself states that the modifications of action (which result from the shift from one diegesis to another) can turn out in varying degrees; this implies that some actions are more closely related to their environment than others. Consequently, the more action and environment are interrelated, the more modifications are necessary and therefore the more difficult it gets to separate between action and framework, foreground and background, story and diegesis. Thus, the level of difficulty that occurs in separating action and environment is decisive for the ecological degree of the narrative. Or to put it in other words, those texts in which the nonhuman entities (which initially generate the environment) stick inseparably to the story (which is allegedly based on human actions) show the ecological impact of the narrative in its uppermost clarity-here, the nonhuman beings are in fact not just decoration but rather driving forces of the story and therefore connected with the human characters in a constellation of co-making and co-acting.

To close my argumentation, I demonstrate the testing device by reference to two novels of the genre of *Heimatliteratur*, Ludwig Anzengrubers *Der Sternsteinhof* (1885) and Peter Roseggers *Jakob der Letzte* (1887) (for a more detailed analysis of these two novels, cf. Michler 198-244 and 270-88). Anzengruber initiates his novel as follows:

A pouring rain had rushed down. Swirling and foaming the otherwise so calm stream runs between the two hills; at the height on one side there stood a large and proud farmstead, at the foot of the other, along the banks of the stream, there lay a range of little huts. ¹⁰ (5)

The novel starts with a description of nature—the stream functions as an actor, which leads the narrative perspective towards the human dwellings. Thereby, the implied social difference between the inhabitants of the mentioned buildings introduces the pivotal aspect of the novel. The protagonist of the text is the poor but beautiful Helene who, since her childhood, has been animated just by one desire—to become the peasant woman of the rich

[&]quot;Ein Gußregen war herniedergerauscht. Wallend und gischend schoß das sonst so ruhige Wässerlein zwischen den zwei Hügeln dahin; auf der Höhe des einen stand ein großes, stolzes Gehöft, am Fuße des andern, längs den Ufern des Baches, lag eine Reihe von kleinen Hütten."

Sternsteinhof. For this aim she ruthlessly overcomes all social resistance. Therefore, the text narrates the plot of social climbing, which is grounded in the Darwinian "struggle for existence" (cf. Michler 229). However, the nonhuman entities like the stream in the starting passage of the novel move out of the narrative focus, they remain on the status of mere background props. Thus, in the sense of Genette's diegetic transposition, it would be possible to shift the plot of social climbing from the peasant world to a different kind of diegesis, for example a medieval aristocratic society or one of modern capitalists. Thereby, it would be necessary to adjust the nonhuman entities to these other worlds, but this could happen without a substantial impact on the plot structure.

Rosegger's novel Jakob der Lette is likewise situated in a rural environment. The protagonist of the text is Jakob Steinreuter, who is bound into a traditional structure of his family genealogy and the peasant work. By this means, the novel constitutes a stable and static connection between the human and his environment. The central topic of the text, however, is how, over more than twenty years of plot duration, this allegedly invariable condition changes step for step, resulting in a fundamental transformation of the peasant world. The transformation is caused by the fact that Jakob's neighbours sell their farmsteads to an industrialist who stops cultivating the land and instead lets it grow wild in order to use it as hunting ground. Only Jakob refuses the purchase offers, because he wants to maintain his traditional way of life.

Up to this point, the plot structure is characterized by an ideology of anti-modernism, but beneath this conservatism, one can additionally observe another aspect of the narrative, i.e., the unfolding of complex relations between human and nonhuman entities. At one point of the text, Jakob warns his neighbour against selling his farmstead:

Neighbour, think about it. If you move a fresh larch tree out of your high forest into the valley, together with its root, and give it the best soil and the richest dung as well as wet and sun as you wish—the larch tree nevertheless perishes. A mountain tree cannot be moved, especially when it is fully grown—neither can a mountain man. ¹¹ (66-67)

[&]quot;Nachbar, bedenk's. Wenn du von deinem Hochwald einen frischen Lärchbaum versetzest hinaus ins Tal, mitsamt der Wurzel versetzest, und ihm dort die beste Erden [sic] gibst und fettesten Dung, und Naß und Sonne wie du willst—der Lärchbaum geht zugrunde. Ein Gebirgsbaum laßt sich nicht versetzen, wenn er ausgewachsen ist, schon gar nicht. Ein Gebirgsmensch auch nicht."

Jakob analogizes his neighbour to a tree, which is interwoven with other heterogeneous entities. Furthermore, in Jakob's depiction the peasants are inseparably "entangled with their ground, with all the herbs and trees that stand on it, even with the beetle on the blade of grass and with the bird on the treetop, not to mention the cattle in the pasture" (68). Jakob's argument demonstrates that the removal of the peasants from their environment must lead to their ruin—and exactly this ruin is the topic of the further plot. Thus, the novel itself implements the proposed testing device of ecological narrative: The peasants are transposed from their traditional world, their diegeses, and thereby fall into misery. At the same time, the peasant's farmsteads are no longer cultivated and become places of wilderness. From the trees to the blade of grass, from the cattle to the beetles, from the soil to the human peasants-here indeed everything is connected to everything else. And so, at the end of the novel Jakob perishes as well, although he maintains the conservative ethic affirmed by the text-the individual is powerless against the transformations that take place in the complex fabrics of his environment (cf. Kling).

The examples of Anzengruber and Rosegger illustrate that, on the one hand, nonhuman entities in narrative texts can simply be passive backgrounds for a story of the human. But on the other hand, there are texts in which the nonhuman entities fundamentally organize the entire logic of the narrative. In the first case, the narrative might even revolve around an ecological topic, nevertheless, solely in the second case—in which action and framework can barely be separated—one is faced with an ecological technique of narrative.

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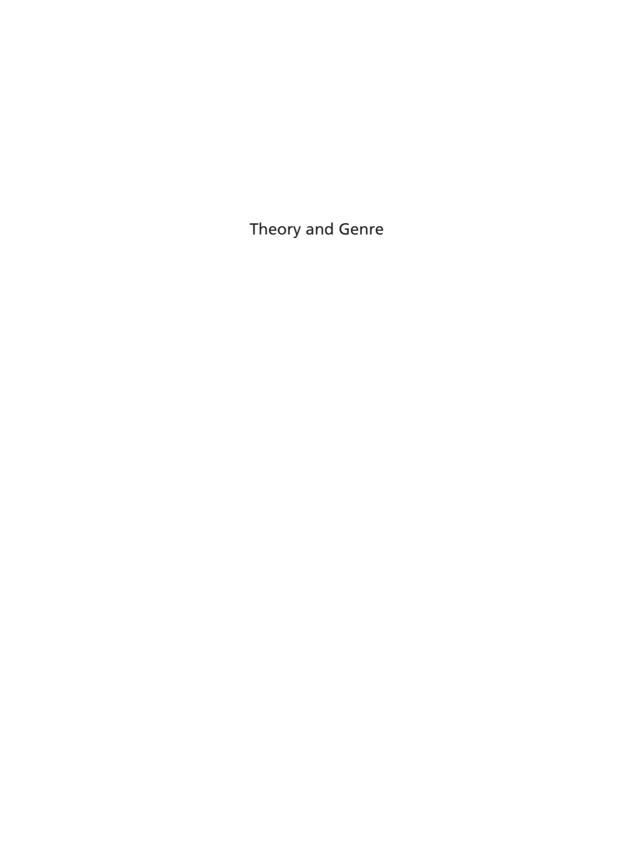
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[&]quot;Du wirst sehen, wie der Mensch verwachsen ist mit seiner Erde, mit allen Kräutern und Bäumen, die darauf stehen, selbst mit dem Käfer auf dem Grashalm und mit dem Vogel auf dem Wipfel, geschweige mit dem Vieh auf der Weide."

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The Beetle Is in the Eye of the Beholder: Animal Ecologies, Situated Poetics and the Poetry of Annette von Droste-Hülshoff

A Question of Form

Annette von Droste-Hülshoff is certainly one of the most important nature writers of nineteenth century German literature (Detering, "Dichtung" 209; Braungart 137; Riedel 1418-19). Most famous are *Haidebilder* and *Fels, Wald und See*, two groups of poems written in the 1840s. In the twenty-two poems assembled under these titles, a rich *bestiarium* of passerines, foxes, flies, dragonflies, fireflies, bulls, wasps, and ravens can be found. Apart from animals, there is also an ample *florilegium* of water lilies, willows, thyme, trifolium, mushrooms, moss, lime trees and vines. In addition to the animals and the plants, the poems display an abundant *lapidarium* of sapphires, diamonds, porphyries, flint and pebbles. And, furthermore, these animals, plants and minerals are always presented in a specific situation: from the break of dawn and the heat of noon to the falling of dusk; from pond and swamp to mountain ranges; from pattering rain and dense fog to scorching sun; from the joys of spring and the fruitfulness of summer to the ripeness of autumn and the frost of winter.

Research has identified three major tendencies in Droste-Hülshoff's nature poetry. Firstly, some scholars emphasize the fact that every poetic depiction of nature in these poems tends to be a sign, a metaphor, a symbol (Häntzschel). Hence in talking about nature, Droste-Hülshoff always addresses more than just nature. Even a tiny beetle and a nasty wind refer to something beyond themselves, most of the time to questions of faith. Thus, nature writing seems to be a kind of metaphoric religious writing. This connection between nature and religion is articulated by Droste-Hülshoff herself when she quotes the bible—"Über ein Kleines werdet ihr mich sehen" 1—and transfers this statement into poetry:

[&]quot;Within the small thou shall behold me." If not indicated otherwise, the following translations of Droste-Hülshoff's poems are my own.

Die Wolke steigt,
Und langsam über den azurnen Bau
Hat eine Schwefelhülle sich gelegt.
Die Lüfte wehn so seufzervoll und lau
Und Angstgestöhn sich in den Zweigen regt;
Die Heerde keucht.
Was fühlt das dumpfe Tier, ist's deine Schwüle?
Ich steh' gebeugt;
Mein Herr, berühre mich, daß ich dich fühle!² (4.1: 67)

Looking at animals and environmental situations leads to a reflection of one's own position in God's creation. It thus seems that Droste-Hülshoff is not talking about a flock frightened by a rising thunderstorm but about a human being frightened by the feeling of being disconnected from God. Animals and environments are mere signs.

Secondly, some scholars emphasize the fact that in the poetry of Droste-Hülshoff every perception of nature relies on an experiencing subject (Kittstein 147). The tiny beetle and the nasty wind are only displayed because they are met by a hypersensitive subject. Some kind of perceptive shock takes place; and the somewhat shocked subject is willing to write down what he or she experiences. This can be retraced in the poem of the flock waiting for the thunderstorm:

Ein Donnerschlag!
Entsetzen hat den kranken Wald gepackt.
Ich sehe, wie im Nest mein Vogel duckt,
Wie Ast an Ast sich ächzend reibt und knackt,
Wie Blitz um Blitz durch Schwefelgassen zuckt;
Ich schau ihm nach.³ (4.1: 67-68)

Perception and experience become one and the same thing: There is no difference, no gap, no distance between the observing subject and the observed object; there is only the perception itself, filled with emotions, which seem to be inside and outside of the speaker, the perceiving "I" at the same time. Terror is everywhere: in the perceived as well as in the perceiver.

^{2 &}quot;The cloud is rising, / And slowly on the azure edifice / Has settled an envelope of sulphur. / The winds are gently blowing full of sighs, / And fearful moaning is moving in the twigs. / The flock is panting. / What may the dull animal feel, is it sultriness? / I stand bowing; / Lord, touch me, that I may feel you."

³ "A thunderclap! / Terror has taken grip of the sick forest. / I see my bird crouch in the nest, / See branches groan and chafe and crackle, / See flashes of lightning twitch through alleys of sulphur; / My gaze is following it."

Thirdly, some scholars emphasize the fact that Droste-Hülshoff's depiction of nature, of animals, weather, plants, and minerals is strikingly concrete, physical, material (Detering, "Landschaften" 45). The tiny beetle and the nasty wind make themselves perceptible by their physical materiality, which, in turn, gets in touch with the corporeality of the speaker. And it is this "I" which denominates the peculiarities of the natural elements perceived: They are wet, cold, smooth, hot, rough, hard, garish, mat and sharp. Here is the beginning of "Die Mergelgrube," probably Droste-Hülshoff's most famous nature poem:

Stoß deinen Scheit drei Spannen in den Sand, Gesteine siehst du aus dem Schnitte ragen, Blau, gelb, zinnoberroth, als ob zur Gant Natur die Trödelbude aufgeschlagen....

Wie zürnend sturt dich an der schwarze Gneus, Spatkugeln kollern nieder, milchig weiß, Und um den Glimmer fahren Silberblitze; Gesprenkelte Porphire, groß und klein, Die Ockerdruse und der Feuerstein.⁴ (1.1: 50)

Nature is more than a useful opportunity to produce metaphors. Nature is worth being poetized by virtue of its own value. To rephrase a well-known title by Judith Butler: In Droste-Hülshoff's lyric one finds nature that matters, animals that matter, environments that matter.

Sign, experience, materiality: These are the elements of nature writing in the work of Annette von Droste-Hülshoff. Obviously, these elements point in different directions. The tension between these elements may be understood in two very different ways. The first option would be to see a kind of hesitancy in the poetry of Droste-Hülshoff, vacillating between a recourse to baroque rhetoric (which always takes the mundane world as a metaphor of the spiritual world, e.g., Andreas Gryphius), an involvement in the poetic form of her time called "Erlebnislyrik," "poetry of experience" (which always puts the experiencing subject at the centre of the poem, e.g., Johann Wolfgang Goethe) and an anticipation of the realistic poetry yet to

^{4 &}quot;The Marl Pit // Thrust your spade three spans into the sand, / Stones you will see sticking out of the cut, / Blue, yellow, vermilion, as if for the fair / Nature has opened a peddler's stall. / ... As if in a rage the black gneiss glares at you, / Beads come rumbling down the spade, milky white, / And silver sparks are flying around the mica / Speckled porphyry, big and small, / The druse of ochre and the flint."

come (which always tries to take into account the given materiality of nature, e.g., Theodor Storm). Droste-Hülshoff does not know what she wants to do, and, therefore, merges three different approaches.

But there is a second option to understand the tension between sign, experience, and materiality in the poetry of Droste-Hülshoff. Perhaps the tension is not only a matter of content but also plays an essential role with regard to the form of the poems. It is about *how* these poems work, not just about *what* they say. This holds true for environmental poetics and zoopoetics in general: There is always the question of *how* preceding the question of *what*. And when it comes to Droste-Hülshoff, the crucial component of this *how* lies in the irritating tension between sign, experience, and materiality. Here, Droste-Hülshoff knows exactly what she wants to do, and, therefore, merges three different approaches.

In the context of "zoopoetics" and "ecopoetics," the topics of this volume, it seems appropriate to adopt the second option: The tension between sign, experience, and materiality is a question of poetic form more than of poetic content. By using this form, Droste-Hülshoff presents animal ecologies in the frame of situated poetics. But to verify this hypothesis, a further complication of the subject in question is required. This complication concerns the historical context in which Droste-Hülshoff uses concepts such as nature, ecology, and animal.

A History of Nature

For the life sciences, the first half of the nineteenth century is a period of transition. On the one hand, biology is still a very young discipline (Foucault). Until the late eighteenth century, biology in the modern sense did not exist. The science dealing with animals, plants, and minerals was still called "natural history." The aim of this science was to read the "book of nature" written by God as a timeless tableau of all worldly beings. In contrast to that, the basis of the eighteenth-century's "new biology," as can be found in the works of George Cuvier, Immanuel Kant, or Johann Wolfgang Goethe, for instance, was the concept of organology. Organology means that there is a functional relation between all organs in one organism, as well as a functional relation between an organism and its natural environment. This organologic relation is no longer explained by a divine act of creation, but by the fact that one organ fits together with all other organs, or that one organism fits together with its environment. Goethe (e.g., in his *Morphologische Hefte* of the year 1824) describes the respiration of fish using their gills as follows:

The fish exists in the water and by means of the water ..., i.e., the existence of a creature we call "fish" is only possible under the conditions of an element we call "water," so that the creature not only exits in that element, but may also evolve there.... It is precisely thus that the animal retains its viability in the outer world: it is shaped from without as well as from within. (939)

With these phrasings it is easy to notice how the concept of organology leads to an ecological thinking: Every living being fits in with its specific environment. Accordingly, Goethe underlines that the "whole Flora is a necessary condition of existence for insects" as "the ocean and the rivers are necessary conditions of existence for fish" and "finally the whole Fauna is a huge sphere where one genus perhaps does not emerge as a result of the others but at least maintains itself through them" (939).

On the other hand, the 1840s, when Droste-Hülshoff wrote her major nature poems, precede the revolutionary publication of Charles Darwin's *Origin of Species* from 1859. Darwin's evolutionary theory not only shows the descent of man from the animal kingdom, but also gives a historical, genealogical view on the relation between living beings and their environments. Thus, from an evolutionary point of view, you can both use and modify Goethe's environmental statement: The animal world is a huge sphere where one genus not only maintains itself through the others but also evolves as a result of them. Accordingly, Darwin does not focus on the individual animal, but on the interdependence between different living beings in a common environment. That is what the famous concluding paragraph of *The Origin of Species* is about:

It is interesting to contemplate an entangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us. (489)

Darwin's conclusions are preconditions for a modern concept of ecology as formulated by Ernst Haeckel in his famous book on the *History of Creation*, published 1868:

The oecology of organisms, the knowledge of the sum of the relations of organisms to the surrounding outer world, to organic and inorganic conditions of existence; the so called 'economy of nature', the correlations between all organisms living together in one and the same locality. (354)

Now we can sketch the historical moment of Droste-Hülshoff's nature writing: Natural history, arguing both in a religious and semiological sense, and placing animal beside animal, plant beside plant, and mineral beside mineral in a spatial tableau is not up to date anymore, nor is it far away from Darwinian ecological thinking. The new biology, explaining organisms by their relation to specific environmental conditions of existence, represents the contemporary concept of nature and animals in the period of Droste-Hülshoff. Although evolutionary theory has not yet been formulated, some of its preconditions can be found in the works of authors such as Goethe.

Tableau, organology, ecology: These are the elements in the history of life sciences in the nineteenth century. Looking at the history of literature, I have pointed out that Droste-Hülshoff's nature writing conflates three successive formal preferences: the baroque preference for signs, the Goethean preference for experience, and the realistic preference for materiality. Looking at the history of science, a similar constellation can be seen: Droste-Hülshoff's nature writing conflates three successive biotheoretical concepts of nature: It places animals, plants and minerals side by side, understanding them as signs in a tableau. It displays living beings-especially animals-as embedded in their environmental conditions. And in alluding to evolutionary arguments, e.g., in her poem "The Mergelgrube" (cf. Schnyder), it finds a path to an ecology that includes human actions (and even human culture) as part and not as counterpart of the ecological sphere. Droste-Hülshoff shows that ecopoetics are more than a matter of content and form, in the sense that poems talk about environments and use environmental rhetoric. It is a matter of ontology: Poems are part of environments.

Situated Poetics of Animal Ecologies

The lyrics of Droste-Hülshoff correlate formal preferences with biotheoretical concepts. You can observe this in "Die Lerche," the first poem of *Haidebilder*. This poem displays nature first of all as a semiotic tableau with animals, plants and minerals joining in praise of creation: "So tausendstimmig stieg noch nie ein Chor, / Wie's musizirt aus grünem Haid hervor" (1.1: 34).

In this poem all living beings are listed, anthropomorphized and aestheticized, for instance:

^{5 &}quot;The Lark // So many-voiced a chorus never rose, / as does now sound from the green heath."

Da regen tausend Wimper sich zugleich, Maßliebehen hält das klare Auge offen, Die Wasserlilie steht ein wenig bleich, Erschrocken, daß im Bade sie betroffen.⁶ (1.1: 33)

It is not about the materiality of nature. It is about the semioticity of natural elements. A nature construed by humans is taken as a sign for human faith. The poem holds on to this traditional procedure for seven long stanzas. But at the end it takes a surprising turn. I quote the last two verses of the poem: "Die Wolke dehnte sich, scharf strich der Hauch, / Die Lerche schwieg, und sank zum Ginsterstrauch" (1.1: 35). It is like a punchline: In the end it is all about natural materiality. And it is no longer about cultural semioticity; physical perception replaces cultural constructions. This sudden replacement, on the one hand, leads to an abrupt ending, on the other hand, to a reflexive twist of the poem: The ending emphasizes that the materiality of nature is the very prerequisite for anthropomorphizing nature. The poem first displays signs, metaphors, and meanings of animals and environments, and then it reminds us of their dependence on a material basis. Thus, materiality and semioticity come into view not as two alternative readings of nature, excluding each other, but as two correlated layers of nature, needing each other. And, in addition, both of them rely on an experiencing subject: on someone who perceives nature as an orchestra, with animals and plants as its musicians ("So tausendstimmig stieg noch nie ein Chor"); and on someone who perceives nature in its most unmediated sense ("scharf strich der Hauch").8

This redirection to the concrete underlines the importance of two features of Droste-Hülshoff's nature writing: the physical perception of the speaker and the specific conditions of existence of living individuals. By combining these two features, Droste-Hülshoff points out that the human being, the speaker of the poem, is also bound to specific conditions of existence. Accordingly, humans are not distant observers but entangled participants of nature, as one can observe in the poem "Im Moose": "Ringsum so still, daß ich vernahm im Laub / Der Raupe Nagen, und wie grüner Staub /

^{6 &}quot;A thousand eyelashes stir at once, / Marguerite keeps open her clear eyes, / the water lily stands a little pale, / As if caught off guard in her bath."

^{7 &}quot;The cloud expanded, harshly stroked the breeze, / The lark stayed silent, and descended upon the broom."

For a recent version of a material as well as meaningful soundscape, see Bernie Krause's Great Animal Orchestra (Krause).

Mich leise wirbelnd Blätterflöckchen trafen" (1.1:81). Nature is a mesh of entangled living individuals (Morton 2011) with some individuals shown to be human. And one of these human beings is the poet him- or herself. Very explicitly Droste-Hülshoff situates this poet—and even more: the moment of *poiesis*, the moment of making art—in an ecological or environmental way. She does so not by representing a poet who is surrounded by nature but by representing the relations between the poet and the other elements of a specific environment. Or to be more precise: Droste-Hülshoff does not show an environment of a poet, but an environment with a poet.

Therefore, the poet-like every member of a given environment, of a given ecology-plays two distinct roles at once: On the one hand, she is affected by the ecological situation she is taking part in. In consequence, the poem can be read-at least partly-as an outcome of the ecological situation depicted in the poem itself. On the other hand, she affects the ecological situation she is sharing. In consequence the poem can be read-at least partly-as an agential element of the ecological situation depicted in the poem itself.

With this last turn, Droste-Hülshoff's lyric not only seems to prelude the scientific definition of natural ecology (Darwin, Haeckel) but also the concept of a political ecology as you can find in Bruno Latour or Donna Haraway (Latour; Haraway). This turn can be supported by the fact that many of Droste-Hülshoff's nature poems are at the same time culture poems, and that these poems combine ecological and poetological purposes. Nature is the space where poetry takes place. In a programmatic manner this is formulated in a poem called "Die Vogelhütte" ("The Bird House"): "Hier möcht ich Haidebilder schreiben, zum Exempel: / 'Die Vogelhütte'" (1.1: 40). A poem entitled "Die Vogelhütte" articulates the wish to write a poem entitled "Die Vogelhütte." The German "Hütte" means "hut," or "small house." Literally, Droste-Hülshoff speaks of an oikos ornithos, a household of birds, with the poet as one of its fellow lodgers. The task the poem takes on is to retrace the outlines of this specific oikos, to make it readable even for human beings. In fulfilling this task, the poem oscillates between being a translation of nature, interference in nature, and a part of nature.

Over and over in her poems Droste-Hülshoff displays a writing human; over and over she takes back his or her activity, priority and superiority. And while decreasing the human's activity she increases the activity of other

 [&]quot;Lying in the Moss // All around so quiet that I could hear the nibbling / Of the caterpillar in the leaves and like green dust / Gently twirling bits of leaf dropped upon me." (Swan)
 "Here I want to write images of the heath, for example: / 'The Bird House."

worldly beings, of animals, plants, minerals, winds, etc. Between these different sorts of worldly beings there is, on the one hand, in Droste-Hülshoff's poetry, no hierarchy. A poem can emerge from the soft breeze of the wind, the hard scratch of bark, the shiny colour of a stone or the far cry of a bird. But on the other hand, there is a certain inclination to animals and their ability to impose themselves on the writer. A good example can be found in "Der Hünenstein." This poem depicts a poet on a stroll in the heath, and above all a poet at an impasse in his/her poetical production. This is the very moment an animal interferes:

Entwürfe wurden aus Entwürfen reif, Doch, wie die Schlange packt den eignen Schweif, Fand ich mich immer auf derselben Stelle; Da plötzlich fuhr ein plumper Schröter jach An's Auge mir, ich schreckte auf und lag Am Grund, um mich des Haidekrautes Welle.¹¹ (1.1: 46)

Once more this poem shows Droste-Hülshoff's situated poetics of animal ecologies. A decreased human subject, lost in reflection, is hit by another worldly being, acting according to its clumsiness. The effects of this situated poetics can be described on three levels. Firstly, from a poetological perspective, the stag beetle figures at once as sign, experience, and materiality. Being material, it hits the eye ("An's Auge mir"). Being experience, it shocks the subject ("ich schreckte auf"). And being sign, it evokes the presence of the surrounding world ("um mich des Haidekrautes Welle").

Secondly, in the frame of a history of knowledge, the stag beetle is at once part of natural history's tableau, of organology, and of ecology. Being part of natural history's tableau, it refers to the semiotic order of nature, finding its paradigm in entomological collections of insects. Being part of organology, it refers to the functional efficiency of the flight apparatus. And being part of ecology, it refers to the *oikos* of the heath.

Thirdly and finally, with regard to the relation between animals and environments, or, on a more abstract level, between Animals Studies and the Environmental Humanities, the stag beetle is at once a part of the environ-

[&]quot;The Megalith // Drafts grew from former drafts, / But, as a snake seizes its own tail, / I found myself stuck in the exact same spot. / When suddenly a clumsy stag beetle flew / At my eye, which made me jump and I was lying / On the ground, around me a wave of heather."

ment, a sign of the environment, and an ambassador of the environment.¹² Being a sign of the environment, it stands in for all possible beings in the world, and thus takes on the rhetoric shape of metonymy. Being part of the environment, it reminds the writer (and the reader) that he or she is also part of this very environment. And being an ambassador of the environment, it uses its own performative abilities to bring the worldly situation to the poet's experience, introducing the environment in the poem itself. The beetle is in the eye of the beholder and thereby creates a situated act of perception. This situating moment is where and when Droste-Hülshoff's zoo-eco-poetics begins.

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Return to the Fable: Rethinking a Genre Neglected in Animal Studies and Ecocriticism

Introduction: Neglect and Attention Concerning the Fable

In the discourses of animal studies and ecocriticism at least two rhetorical strategies to deal with the literary genre of the fable can be distinguished: First, scholars of both fields regard the fable with restraint and skepticism, associating the respective texts with a potential anthropocentrism concerning the depicted animals, plants and things (cf. Ritvo; Fudge; Simons). The basic assumption underlying this skepticism is that animals and environments in fables are only features of the moralistic function of the genre. In this sense, all natures depicted in fables finally refer back to the human and are reduced to vehicles for human purposes. For this reason, fables are still often ignored or avoided in animal studies and ecocriticism. Second, some scholars acknowledge the fable as a valuable source for understanding human attempts to examine the nonhuman world with literary means (cf. Harel; Schuster; Waldow; Borgards "Tiere und Literatur"; Schönbeck). These scholars emphasize the theoretical implications of fables and include them in their works and agendas. The basic assumption underlying this interest in the fable is that fables are documents of a human attempt to deal with and understand the more-than-human world, nonhuman others and their relations to each other and to the environment.

Hence, the question whether fables are of theoretical value is being controversially discussed, especially in animal studies. One significant example for the restraint and skepticism is John Simons' rejection of the fable in his monograph *Animal Rights and the Politics of Literary Representation* (2002) because it has "little to offer." Simons describes the genre as a narrative which exclusively explores "the human condition" and doubts that the animals depicted in those texts are "presented as having physical or psychological existence in their own right" (119). In this sense, the meaning of the animals depicted in fables seems to be reserved for humans. In a similar vein, Jacques Derrida argues in *The Animal that Therefore I Am* (2006/2008) that he wants to "avoid fables" (27) He associates them with an "anthropomorphic taming" and argues that fabulation or—as Geoffrey Bennington translates Derrida—

"fabulization" remains a "discourse" only "of man, on man, indeed on the animality of man, but for and in man" (37). A closer look at the arguments of those who are skeptical about fables shows that, according to them, the fable is characterized by a problematic and disproportional relationship of humans and animals, a relationship that is fundamentally anthropocentric and anthropomorphic. Fables are written in human language and often aim at human morals. For many critics, anthropomorphism in fables is only anthropocentric, naïve or even narcissistic. The skeptics reject the fable with the moral argument that "humans project their own thoughts and feelings onto other animal species because they egoistically believe themselves to be the center of the universe" (Daston and Mitman 4), which is the same argument ethologists put forward to support their restraint against anthropomorphism.

I argue that our theoretical premises are crucial for understanding and evaluating literary animals in general. That fables are texts that often relate animal stories about incidents in order to illustrate human morals belongs to the central theoretical assumptions about them in literary theory. But can we also learn something from fables about animals or environments and the way humans deal with them literally and in literature? As this remains an open question, scholars of both fields are still interested in the genre. I argue that the fable, both as a literary genre and as fiction or literature in general, i is a prime example of zoopoetics and ecopoetics because the fable problematizes and theorizes the relation of texts, animals, and environments.

Another reason for the yet undiminished interest in fables is that theoretical key texts of ecocriticism and animal studies include fables both as a method and an object of research. In the following, I briefly revisit three canonical texts for animal studies and ecocriticism, namely Rachel Carson's Silent Spring (1962), Michel Serres' The Parasite (1980), and Jacques Derrida's The Beast & the Sovereign (2009). These authors include fables and thus demonstrate their theoretical potential. I approach key passages of these texts with two core questions in mind: What is the specific way in which the authors include the fable in their theories and what role do they play in developing these theories? How is it possible to develop from these key

The OED lists four meanings of the fable, but only three of them are relevant in our context. First of all, fable means any "fictitious narrative or statement; a story not founded on fact." Those fables, for example myths or legends, are often associated with falsehood. Second, fables are short stories, "devised to convey some useful lesson; *esp.* one in which animals or inanimate things are the speakers or actors; an apologue." Third, fable means a "plot or story of a poem." Finally, the word refers to a "talk, in phrase to hold (a person) in fable, a discourse, narration" ("fable, n.").

passages more general theoretical thoughts concerning the use of the fable in animal studies and ecocriticism? By analyzing these texts, my chapter aims at returning to the fable theoretically, underlining the need for a contemporary fable theory that opens up new ways to think about the relations of texts, animals, and environments.

"A Fable for Tomorrow" (Carson 1)

Rachel Carson's Silent Spring published in 1962 has become one of the most famous texts, if not the initial text of the late twentieth century's environmental movement. Until today, people who try to reconstruct the history of the environmental humanities or of ecocriticism often praise Carson's nonfiction book (cf. Horward 74; Rigby, "Ecocriticism" 156; Garrard 1; Heise 160). The reasons for the repeated appearance as a key reference until now may include its rhetorical and poetical qualities. In contrast to the nonfictional character of the whole book, Silent Spring contains a so-called "Fable for Tomorrow" that has become paradigmatic for the controversies that emerged after the release of the book (cf. Oravec). Inserted at the very beginning, it obviously uses literary strategies to introduce the argument of a contemporary crisis of the human relation to the environment. The text does not try to hide but rather underlines the fabulous character of this initial point. Already the title of the chapter contains the "alarming" concept "fable" and thus plays with the connotation of a fictional and false story that can simply be rejected as an account of something that probably never took place and will never exist in the future. Furthermore, the title raises the question of anthropocentrism and anthropomorphism.

Silent Spring begins with the depiction of a prosperous, cordial city surrounded by a pastoral landscape:

There was once a town in the heart of America where all life seemed to live in harmony with its surroundings. The town lay in the midst of a checkerboard of prosperous farms, with fields of grain and hillsides of orchards where, in spring, white clouds of bloom drifted above the green fields. (1)

The literary history of the fable is not analyzed in Carson's first chapter but evoked in the course of the narration. At least two literary backgrounds are relevant here, Enlightenment and Romanticism, as Catrin Gersdorf has shown in her article about the intertwinement of animals and environments (25). Whereas the tradition of the Enlightenment plays a central role in the revealing analysis of the disastrous impact of DDT use in the remainder

of the book, the romantic tradition is crucial for an understanding of the opening. These first sentences are indicators of the genre of romantic fairy tales and many children would recognize and attribute them to the brothers Grimm whom Carson refers to a bit later in the text (32). Furthermore, William Wordsworth and his proto-ecological writings are evoked here. It is striking that, in his *Lyrical Ballads*, one often finds the imagination of a "green past" in contrast to the industrialized present. In Carson's introductory fable, the town is harmoniously embedded in its natural surroundings. The imagined city reminds the reader of "pastoral farms, / green to the very door" (110), just like the one described in "Lines Written a Few Miles above Tintern Abbey." The contrast depicted in *Silent Spring* is not one between city and countryside, but one between the past and the present. The fable is a means to narrate a temporal transition in the relation of humans, nonhuman animals and their environment.

Exemplary of the "harmony," "beauty," and "abundance" of nature, as it is described in *Silent Spring*, appears the rich variety of "countless birds" that was well-known all over the country: "The countryside was, in fact, famous for the abundance and variety of its bird life, and when the flood of migrants was pouring through in spring and fall people traveled from great distances to observe them". The songs of the birds and their becoming silent are one central aspect of the narration of a grave transformation in the process of civilization that is also a rupture within the history of living life: "Then a strange blight crept over the area and everything began to change" (2). The beginning (of the book and of the fable) is a reminder of the latent historical background of the contemporary crisis that occurs against the backdrop of a beautiful past and results from the widespread use of pesticides in agriculture.

After the turning point in Carson's fable, the absence of the birds is of major importance: "There was a strange stillness. The birds, for example, where had they gone? Many people spoke of them, puzzled and disturbed.... It was a spring without voices" (2). In his paper on the animal fable, Louis Marin formulates the paradigmatic question of the genre as follows: "Que signifie, dans le discours de la fable, la bête parlante" (775)? After raising this question, Marin himself gives the most prevalent answer: "Une allégorie de l'homme. Soit" (775). With regard to the introductory fable in *Silent Spring*, the question has to be rewritten in the following way: What does it

² The romantic tradition is considered to be one of the most important literary backgrounds of what we have called "ecocriticism" since the early 1990s. Cf. Bate, *Romantic Ecology*; Kroeber, Rigby, *Topographies*; Hall.

mean when the birds in the fable stop singing? The answer is not as easy as in the case of the animal fable. Certainly, those silenced birds cannot be read as a human allegory. Instead, they do not seem to refer to anything but themselves. In fact, their song and subsequently their silence render legible a transition from ecological harmony to disharmony. As a result, the birds do not sing anymore.

In romantic poetry, songs of birds are ubiquitous; often, texts stage the beginning of the birds' song, famously so in "The Nightingale," but sometimes they also display grief about the becoming-silent of the birds, as in "La Belle Dame sans Merci" by John Keats, which is—as Jonathan Bate has shown—one of the important intertexts of *Silent Spring*. The beginning of the birds' song is strongly associated with beauty, but also with melancholy about a certain loss, as it is the case in Wordsworth's "The Nightingale":

.... All is still,
A balmy night! and tho' the stars be dim,
Yet let us think upon the vernal showers
That gladden the green earth, and we shall find
A pleasure in the dimness of the stars.
And hark! The Nightingale begins its song,
"Most musical, most melancholy bird!"
A melancholy Bird? O idle thought!
In nature there is nothing melancholy. (42)

The speaker in "The Nightingale" reflects upon the meaning humans give to the nightingale and its song. In the poem the nightingale is interpreted as a symbol for melancholy, but at the same time the concession is made that such a meaning is only a human ascription and that the nightingale (and, ultimately, all nature) is not itself melancholic. Thereby, the nightingale paradoxically keeps its melancholic meaning because it refers to something that existed only in the past and is lost now according to the speaker. The song of the nightingale reminds the speaker of this lost meaning that was introduced, as the text reminds us, by a "night-wandering Man, whose heart was pierc'd / With the remembrance of a grievous wrong" (42). The same association of the nightingale's song with melancholy and grief about something lost is also evoked in the first (and the last) stanza of "La Belle Dame sans Merci:"

O what can ail thee, knight-at-arms, Alone and palely loitering? The sedge has withered from the lake, And no birds sing. (441) In Wordsworth's "The Nightingale," the birds sing; in Keats' "La Belle Dame sans Merci," they are silent. This is one simple difference between the two ballads. However, in both cases the birds refer to the absence of love and beauty. Whereas the song of the nightingale refers to its own lost traditional meaning, the silence of the birds is associated with the absence of the "belle dame." The same economy of absence and presence is implicated in the beginning of *Silent Spring*, the title of which already anticipates the becomingsilent of the birds. It would make no sense to reject Carson's fable altogether with an argument against anthropocentrism. The fable rather problematizes the becoming-anthropocentric of the *anthropos*.

The "Fable for Tomorrow" articulates severe changes in the ecological relations between humans, animals, and plants. Carson does not develop a fable theory, but uses the fable as a method in order to narrate a change in the relation of humans, animals, and environments. Her fable is not an object of research but a means to begin her book with a generic example that can easily be related to existing cities "in America or elsewhere in the world" (3).

"La Fontaine explains this to me further on" (Serres 5)

Michel Serres' book *Le Parasite* (1980) begins in a quite similar fashion. Like *Silent Spring*, it begins by telling a fable. But there are also differences concerning the status of the fable for the theory that is developed and its relation to the literary texts used to construct the argument. Serres invents a fable (like Carson), and at the same time he explicitly mentions certain literary backgrounds (unlike Carson). He refers to French poets like Jean de la Fontaine (*Fables*, 1684-86) or Edme de Boursault (*Fables d'Ésope*, 1690). At the same time, Serres does not deliver an analysis of these literary texts but uses them in order to demonstrate and develop his own argument. The first chapter is entitled "Rat's Meals" and "Cascades," and it begins as follows:

The city rat invites the country rat onto the Persian rug. They gnaw and chew leftover bits of ortolan. Scraps, bits and pieces, leftovers: their royal feast is only a meal after a meal among the dirty dishes of a table that has not been cleared. The city rat has produced nothing and his dinner invitation costs him almost nothing. Boursault says this in his *Fables d'Esope*, where the city rat lives in a house of a big tax farmer. Oil, butter, ham cheese—everything is available. It is easy to invite the country cousin and to regale oneself at the expense of another. (3)

After the first few sentences, the text reveals the source of the fable and thus transforms its status from a proper invention to a quotation. The text quotes the comedy *Les Fables d'Ésope* by Boursault, a text published in 1690, some

years after La Fontaine's last series of fables containing rather loose translations of Aesop's antique fables. In Boursault's comedy, the Greek fabulist Aesop is one of the main characters who, from time to time, instructs or persuades his interlocutors with a fable. The comedy of Boursault can be considered a direct reaction to the collection of La Fontaine. The most obvious difference between La Fontaine's fables and those of Boursault is that the latter mixes the genres of the fable and comedy, introducing human characters who tell fables to each other and thereby relate themselves to the fabulous animals. When he takes up this genre mixture of Boursault and inserts it into his own theoretical account, Serres makes the question of genre even more complicated (cf. Zillén). Three genres are involved: the fable (Aesop, La Fontaine), the comedy (Boursault), and a theoretical or philosophical genre (Serres). Serres refers to *Les deux rats*, a fable that is included in *Fables d'Ésope*. By quoting Boursault in the beginning of his book, he underlines that he tries to describe a certain system of relations. Already in the literary model, the characters of the comedy and that of the fable share a complex relationship. The text of Boursault displays that relationship between the human characters of the play and the animal characters of the narrated fables. Regarding Serres' dealing with the fable, it becomes obvious that not only the different genres but also the different human and nonhuman characters do not relate to each other by opposition or substitution, rather they become part of a relational fabric or a "parasitic chain" (3) as Serres calls it.

La Fontaine's "Le Rat de ville et Le Rat des champs" is the second fable the text quotes. La Fontaine writes his version of the fable some years earlier than Boursault and includes it in his three volume collection *Fables choisies, mis en vers*. By quoting La Fontaine's version, Serres shows that it is possible to describe every character in the fable as the parasite, depending on the perspective and the position in the chain of parasites. The fable brings this aspect into play in a moment of *peripeteia*, a turning point. Suddenly, a human character interrupts the meal of the two rats and thereby creates a new parasitic regime:

The meal was all two rats could wish;
But as they took their leisure,
Something—most likely humanish—
Came by to spoil their pleasure.
Outside the door they were eating:
Noises of frightful kind!
Off flees the city rat, retreating;
Country friend close behind. (La Fontaine, Fables 12)

The *peripeteia* is initiated by a noise that Serres also describes as parasitic, "an interruption, a corruption, a rupture of information," responsible for disrupting the prevalent order and generating a new one. A "parasitic" relation is a "relation without a reversal of direction" (5) of at least two living beings or objects. For Serres, fables are outstanding objects of research but also a means to demonstrate parasitic relations. To understand this point, it is necessary to outline his implicit fable theory that leads him to the assumption that "La Fontaine explains" something to him "further on" (5).

Serres diagnoses that both fable and science are characterized by anthropomorphism, in the sense that both go back to certain human practices in cultural history, such as hunting and "human habits and customs" more generally. These habits have been transferred from humans for instance to little animals. What he demands now is to "reverse" anthropomorphism by trying to recognize human behavior in the actions of animals.

I'll close the triangle³, agreeing with science rather than with the fable. The intuition of the parasitologist makes him import a common relation of social manners to the habits of little animals, a relation so clear and distinct that we recognize it as being the simplest. Let's retrace our steps for a moment, going from these habits back to those manners, reversing anthropomorphism. We have made the louse in our image; let us see ourselves in his. (7)

At this point it becomes obvious that this understanding of the fable differs from an anthropocentrism that is characterized by a trivial anthropomorphism. Rather, Serres highlights that it is possible to reverse the anthropomorphism at least "for a moment" and to acknowledge the "intuition" of the scientist concerning the "habits" of little animals. Leaving aside the question of whether biologists necessarily make use of anthropomorphisms, he underlines that the ascription of animal habits should be based on observations. According to Serres, there is an intimate correlation between the "social manners" of humans and the "habits of animals." The paradigm of this coherence is the parasitic relation that is a trait of animals as well as humans in their social sphere. To "reverse" anthropomorphism means that Serres does not want to make statements about the human-like behavior of animals, but about the animal-like behavior of humans (theriomorphism):

³ Serres defines the triangle a little bit later in the text as follows: "The triangle is closed. At each of its points, through story or science, social science or biological science, just one relation appears, the simple, irreversible arrow" (8).

⁴ For different forms of anthropomorphisms, cf. Daston and Mitman.

"We have made the louse in our image; let us see ourselves in his" (7). The theory of parasites comes with a fable theory that enhances this genre of animal literature because it educates the reader about animal habits as well as social practices with the necessary degree of complexity.

Serres argues that fables fundamentally deal with a "system of relations" that are considered parasitic relations, "the simple relation of the abusive companion." With his interest in "intersubjective relations" (8) shown in fables, he implicitly rejects the assumption that fables "contain" an anthropomorphic allegorical meaning that has to be deciphered. He focuses on humans that are considered parasites because they are the permanent abusive guests of animals and plants. Not only with regard to Serres' writing (which could be called parasitic itself), one consequence of this insight could be that the relations of the writer as well as the reader of fables to the animals and plants within fables are parasitic relations. Accordingly, the premise of further readings of fables would have to be that it is yet unclear and maybe impossible to decide "what belongs to the system, what makes it up, and what is against the system, interrupting and endangering it" (16). Finally, it is remarkable that Serres highlights a resemblance between the relations within an environment and the relations between the host and parasite and thereby naturalizes his theory of social relations: "The equilibrium of a living being in its environment resembles the one that the host and parasite finally realize and sometimes arrive at" (167). However, he acknowledges that environmental relations can be parasitic, when he takes a closer look at the relations of human beings to the animals they consume literally, as clothes or nourishment. His argument leads up to a point where the collective and the whole system of parasitic relations are equated with the "environment" (10), underlining the political implications of parasitic relations.

It becomes apparent that Serres develops his theory with the help of fables. By quoting the fables of Boursault and La Fontaine, he reflects the relation of textual genres and of hosts and parasites. Fables are prime objects to study parasitic relations. His theory of the parasite includes a theory of the fable that might be called the "relation theory." It implies that readers can use fables to track a complex structure of relations, a relational fabric, where social practices correspond to animal habits. The hierarchy implicit in the system of parasitic relations (Serres' "environment") that only go in one direction, has a political dimension. In the last part of my chapter, I am taking a closer look at the political dimensions of fables and of fabulation.

"What is a fable?" (Derrida 24)

I am going to conclude with some remarks on Jacques Derrida's lectures published in 2008 under the title La bête et le souverain. In the first session of his last seminar, Derrida raises the question "What is a fable?" (24) and underlines a characteristic openness of the fable which is already part of the answer. In *The Animal That Therefore I Am* Derrida still wanted to "avoid fables" (27) and rejected them as "zoopoetic" (6), i.e., as literature that has nothing to do with real animals like his cat.⁵ His last seminar, however, begins with considerations concerning fables that are connected to the constellation of beast and sovereign: "Every seminar begins with some fabulous 'as we will shortly show" (Beast 24). The text revolves around the absence of the wolf: "There is only a word, a spoken word, a fable, a fable-wolf, a fabulous animal, or even a fantasy" (5). This contemplation about wolves goes back to the general definition of the fable as a discourse or a narration and associates the word with a fictional character. At the same time, Derrida states that "these fables or fantasies vary from one place and one historical moment to another" (4). As someone giving a seminar on wolves, he is confronted with different cultural and historical backgrounds of wolf fables and their relation to his perspective.

These "thorny frontier questions" (4) become more explicit when the listener and reader of the seminar consider the role of specific fables—now understood as a genre of literary text—in Derrida's discourse. He begins his seminar with a hidden quotation from the beginning of La Fontaine: "The reason of the strongest is always the best. As we will shortly show" (7). Derrida does not make the literary reference explicit at this point. Later on in the session, the source is revealed, it is the *promythion*, the moral tenet of *Le loup et l'agneau*: "La raison du plus fort est toujours la meilleure: Nous l'allons montrer tout à l'heure" (La Fontaine, *Œuvres* 44). Derrida plays with this epigram from the beginning of La Fontaine's fable to reflect upon the absence of wolves, both in the fable and in his seminar, and about the relation of "the beast" and "the sovereign."

Like Carson and Serres, Derrida uses the fable as a starting point to elaborate his theoretical argument about the relationship of the beast and the sovereign. I argue that the beginning of his seminar also contains a fable theory that cannot be described adequately in terms of an underlying anthroprocentrism or a naïve or narcissistic anthropomorphism.

For an analysis of this differentiation, see the introduction to this volume as well as Driscoll and Hoffmann.

In the first session, Derrida distinguishes "figures of the wolf" including "fables and fantasies" on the one hand and "real wolves" that "[w]ithout asking permission ... cross humankind's national and institutional frontiers, and his sovereign nation-states" on the other hand. But rather than turning to real wolves and insisting on their reality like he did facing his cat in *The* Animal that Therefore I Am, he fleshes out the power or—as Alexander Kling has described it-the "energeia" (20) of the fabulous wolf that requires his absence ("pas de loup") (Derrida, Beast 5). This very absence "bespeaks," according to him, "power, resource, force, cunning, ruse of war, stratagem or strategy, operation of mastery" (6). The political value of the fabulous wolf is considered even higher than the value of the real wolf: "The strength of the wolf is all the stronger, sovereign even, is all the more all-conquering [a raison de tout] for the fact that the wolf is not there, that there is not the wolf itself, were it not for a pas de loup, except for a pas de loup, save a pas de loup, only a pas de loup" (6). The enigmatic sentence suggests that fables of wolves not only show political power but produce political power through rhetorics. This leads to the following questions: First, how do fables show political power? Second, how do they produce evidence?

Derrida argues that, in fables, the beast and the sovereign are connected by means of analogy. After having quoted the first lines of La Fontaine's fable *Le loup et l'agneau* ("The reason of the strongest is always the best; / As we shall shortly show") several times, he refers to Jean Jacques Rousseau's *Du contrat social* (1750) and points out the resemblance between the chapter entitled "Of the Right of the Stronger" and La Fontaine's fable. This leads to a reading of the fable as a *mis-en-scène* of political power. Derrida identifies the means employed to articulate political power in La Fontaine's fable as well as in Rousseau's text. It is articulated with the help of the "*analogy* that kings were gods, or that peoples were beasts" (Derrida, *Beast* 12). In what follows, Derrida shows interest in the "multiple and overdetermined analogy" that binds together "man" and "animal" in order to highlight the "porosity of [the] limit between nature and culture" (15):

Of course, the word "analogy" designates for us the place of a question rather than that of an answer. However one understands the word, an analogy is always a reason, a logos, a reasoning, or even a calculus that moves back up toward a relation of production, or resemblance, or comparability in which identity and difference coexist. (14)

⁶ Rousseau's text has been translated by Geoffrey Bennington.

Derrida underlines that the analogies developed in fables are characterized by identity and difference of both human and nonhuman animals. These analogies are organized and thereby "cultivated" and "accredited" whenever they are articulated. From this perspective, fables are not only "representations" of power relations, they are, at the same time, "fictive and performative" (217) actualizations of power relations. On the one hand, Derrida is interested in real beasts that "play a role in civil society or in the state" like the elephant that was dissected by Louis XIV during an anatomy lesson (250-75). On the other hand, like La Fontaine, he is interested in fabulous beasts that show the "essence of political force and power, where that power makes the law" (217). Power passes through the fable, "power is itself an effect of fable" (218). This is the reason why Derrida's fable theory is neither anthropocentric nor anthropomorphic in the sense that animals in fables only function as masks for human characters. What is more, Derrida's fable theory is based on complex analogies and points in two directions; the direction of the humans and their animalistic politics and the direction of nonhuman animals and their zoopolitics.

Conclusion

I have shown that fables are of considerable theoretical import in three canonical, albeit very different, texts—Rachel Carson's *Silent Spring*, Michel Serres' *Le parasite*, and Jacques Derrida's *The Beast & the Sovereign*—that can all be considered central references in animal studies and ecocriticism. At beginning of my chapter, I drew a distinction between two different stances towards fables: neglect and attention. Considering these two options, I have pointed out that both critics and proponents usually agree on the anthropocentrism and anthropomorphism of the fable. However, while the critics discard the genre as an object of research because it is regarded as little more than a document of anthropocentrism and naïve or narcissistic anthropomorphism, scholars who take an interest in fables do so precisely because they want to examine anthropocentric relations and reflect on anthropomorphism. What is more, the latter use fables as a method to think through these problems. They deem a "strategic" anthropomorphism necessary to deal with animals and environments in texts. This appreciation of fables may be an incentive

⁷ Markus Wild describes this as the "positive function" of anthropomorphism (cf. 27).

to ask for a contemporary fable theory that does more than repeat the common belief that fables speak of animals but mean humans.

In all three examples, the fable is used as a method in order to develop a theory, be it Carson's narration about the change in the relation of humans, animals and environments in the history of the living life in *Silent Spring*, Serres' reflection on the parasitic relation of animal habits and social practices in *The Parasite*, or Derrida's contemplation about the power effects of the fable and of fabulation in *The Beast & the Sovereign*. What the texts have in common is that they all theorize the relations of texts, animals, and environments. Certainly, fables feature animals more prominently than environments, making them more likely to be of interest for animal studies scholars. Yet, as I have shown, they can also play an important role for ecocritics and their concerns about environments.

This leads to the conclusion that fables are both an invaluable source and a useful instrument to interrogate fundamental assumptions and theoretical principles in animal studies and ecocriticism. Without a doubt, literary texts and their strategies are objects and methods of research in both fields. As a prime example of zoo- and ecopoetics, the fable addresses a theoretical core problem shared by both fields. Drawing from the analyses of passages in Carson, Serres and Derrida, three characteristics of this core problem can be highlighted: First, in every text about animals and environments, animals and environments themselves are neither completely present, nor completely absent (like the birds in Silent Spring or the wolf in The Beast & the Sovereign). Second, every text about animals and/or environments necessarily displays and develops relations of texts, animals and environments at the same time. Finally, these relations are always multidimensional, hierarchical and political. These characteristics also play a role in recent major texts of theory like Donna Haraway's book Staying with the Trouble, in which she develops and performs a new way of "speculative fabulation" that takes into account that the anthropos has become "unthinkable" (30). Haraway's proposition to deal with animals and environments in a new way also includes a different approach to ancient fables. Haraway wants to "resignify and twist the stories, but no more than the Greeks themselves constantly did" (54). Although it may seem challenging, future studies of fables have to acknowledge that fables are both objects and methods of research that display and organize texts, animals and environments. Therefore, fables are indispensable for our understanding of animals and environments.

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Other Environments: Ecocriticism and Science Fiction (Lem, Ballard, Dath)

After focusing on the study of nature writing, representations of nature in romantic texts, and depictions of ecological catastrophes, ecocritics have also discovered science fiction literature (SF) as a potentially productive field of research. Interstellar journeys, the colonization of space or living on the future Earth serve as metaphors that address issues such as ecological problems, the consequences of globalization, or the appearance of new technologies (Canavan and Robinson). The design of alien environments and the focus on the relationship between humans and these environments makes SF a particularly interesting genre for ecocriticism. Patrick Murphy introduced a helpful distinction pertaining to the different forms of environment in SF. He distinguishes "nature-oriented writing," "environmental writing," and "ecological writing" (Murphy 375). The criterion for Murphy's typology is the degree to which an environment is shown. "Nature-oriented" texts only thematize certain aspects of the environment; in "environmental writing" we encounter particular ecosystems; and "ecological writing" portrays the interrelationships of an entire biosphere. But it is not the environment alone that is at stake here, rather the ecocritical perspective casts a new light on Darko Suvin's prominent definition of the genre: "SF is the literature of cognitive estrangement" (4).

The narrative core of SF is, according to Suvin, the "novum," a "totalizing phenomenon or relationship deviating from the author's and implied reader's norm of reality" (64). As such, it is crucial that estrangement establishes the formal framework of this genre: The deviation from the author's norm has to be understood as relating to a deviation in the semantic field. Drawing from Jurij Lotman's work, Suvin considers this "novum" as a transgression of cultural norms, constituting an alternative reality (70). Thus a work of science fiction creates an "imaginative framework" different to the author's empirical environment (8). While Suvin stresses the author's environment, I instead propose to look at the scientific, technical, social and political discourses in which a text is embedded. In this sense, SF can be seen as both a continuation and a transgression of specific discourses and practices. But SF does not just bring these discourses up to date. The combination of elements

from different discourses and their integration into a narrative create new scenarios, which in turn reflect the actual state of reality as well as possibilities created by science and technology. These scenarios also raise ethical, social, and political issues. Aldous Huxley boiled down the specificity of literature in the preface to his novel *Brave New World* (1932): The theme of his novel is not meant to be the "advancement of science as such"; instead the only "scientific advances to be specifically described are those involving the application to human beings of the results of future research in biology, physiology and psychology" (10).

In this article I will focus on the reflection and construction of alien environments and the way they affect human beings, non-human creatures, and the relationships between them. On the one hand, these environments refer to ecological discourses; on the other, they reveal the poetological dimensions of SF. First, the construction of artificial environments in space colonies, virtual realities, alien environments on distant planets or on the future Earth can be seen as *poietic* processes; secondly, an alien environment is represented in writing, and the representation itself is thematized; and thirdly, the environment itself can be seen as an agent that is able to design unique conditions for life forms. As far as life forms are concerned, these animals, or alien creatures, come into play in a variety of ways from sources of food to dangerous or friendly creatures to characters or metaphors. Although SF often focuses on the human hero, and there are not always "real" animals as we know them on Earth, the concept of zoopoetics still provides a useful critical perspective for SF. In this regard, SF uses alien creatures to address the issues pertaining to the relation between human and non-human beings. The following analyses of three novels by Stanisław Lem, J. G. Ballard and Dietmar Dath demonstrate that in SF one cannot examine the role of animals without taking into account the environment, and vice versa.

Adaptation: Stanisław Lem's The Invincible

Adapting to the environment is central in Stanisław Lem's work. In his essayistic book *Summa technologiae* (1964), he addresses this theme with the help of a cyborg figure, a reconstruction of man with combined organic and technological components. Lem writes: "Yet this is not a project for universal reconstruction. It is supposed to serve some particular goals, that is, an adaptation to the Universe as an "ecological niche" (348). This concept of adaptation provides the foundation for Lem's later discussion of the distinction—or, more precisely, the confrontation—between humans and other

living beings in his novel *The Invincible* (1967). The book treats the problem of adapting to the environment as a military conflict.

The plot starts with the arrival of a big interstellar spaceship called "The Invincible" on the planet "Regis III." The passengers of the spaceship are looking for their lost sister ship, "The Condor." The spaceship epitomizes the Cold War: It is built with the most advanced technology, equipped with the best available weapons (such as lasers, anti-matter weapons and a cyclops who is eight meters tall) and powered by nuclear energy. Lem's novel gives concrete representation to the imaginations of the major powers of the Cold War (Horn, "Leben als Schwarm" 107).

At the start of the novel, the scientists begin to examine the planet's environment. The ship's crew includes cyberneticists, geologists, physicists, oceanologists, biologists, and others. But Lem is not just interested in the scientific exploration of an unknown environment. His novel directly demonstrates how the scientists develop hypotheses about the environment and possible life forms on the planet. In other words, Lem's novel performs the process of scientific *poiesis*, which corresponds with the novel's narrative structure, namely that of a detective story.

The scientists' first object of study is the composition of the atmosphere. They detect 16% oxygen and 4% methane, which normally would be an explosive mixture. But the methane has a distinct structure, so that it reacts only by means of a catalyzer. Because of the oxygen the scientists look for living beings—and they find some. There are algae and fishes in the ocean, but they find no signs of life on land. They discuss possible reasons such as extreme levels of radiation, high temperatures, an eruption, or a meteorite. Finally, they conclude: "Any hypothesis would fail the test here" (Lem, *Invincible* 51).

This narrative device of generating and rejecting hypotheses continues when they find the dead crew of the lost ship and ponder the possible causes of death. They are then confronted by a swarm of flying dots or—as they also call it—a "cloud"—the only life form on land. Investigations into the center of the "cloud" and its regulating principle (maybe electromagnetic rays or even telepathic control?) come to nothing since all attempts to contact the "cloud" fail. Ultimately, the scientific object of study turns into a real enemy, which cannot be defeated. And in the end, the spaceship, "The Invincible," is, despite its name, vanquished.

This method of building hypotheses, discussing them and finally abandoning them is the organizing principle of the first part of the novel. Lem does not just describe the alien environment, he allows the process of a

scientific investigation of the environment to unfold, which involves taking measurements and conducting experiments. But these procedures only provide data that lead to the formation of other hypotheses. That is to say, the scientists continue to produce signs that demand interpretation. In Lem's novel, scientific research is the practice of semiotic reading.

It therefore makes sense that the explanation of the hostile swarm would take the form of a narrative. One of the biologists stops the regular line of argument based on measurements, observations, experiments or scientific hypotheses, and instead begins to tell a story: He assumes that a spaceship from a highly developed civilization came to the planet; the crew died, perhaps because of an explosion or a chain reaction, but their machines survived. One group of these machines went its own way and transformed, perhaps because of pressure from aggressive animals or other machines. They adapted to the planet and emerged as self-organizing machines, which in turn displaced the other living beings and machines. The energy shortage likely created a "battle for survival." The winners were not the intelligent machines or the big and strong animals but rather the small, economical, efficient beings that were able to use solar energy. Under normal circumstances they move about in non-organized swarms, but when they are threatened they form a deadly cloud.

Although a swarm is not an animal per se, it is a non-human life form that is described using comparisons to animals. The two robotics researchers Gerardo Beni and Jing Wang, who invented the term "swarm intelligence," explicitly emphasize the relevance of bionics for their research. Indeed, bionic procedures inform swarm theory: Typical features of swarms, like selforganization, adaptability, flexibility, and decentered and non-hierarchical organization, can also be found in the behavior of ants or bees (Beni and Wang 711). Lem, too, develops the swarm concept based on animals: In his book Weapon Systems of the 21st Century or the Upside-Down Evolution (1983)—a future review of a three-volume work published at the beginning of the twenty-second century-Lem presents a vision of soldiers in the future. Selforganized, miniaturized robot-swarms will have fundamentally changed warfare: Human beings will no longer be a part of the wars of the future. The idea for these kinds of soldiers stems from the behavior of social insects, namely of ants, bees and swarming locusts. This similarity between organic and technical things is a device which Lem calls "imitology" in his Summa technologiae, an art of construction that is based on algorithms found in nature (Lem, Summa 178-79), for example, in the behavior of a swarm of ants. In The Invincible the swarm is repeatedly described through animal metaphors:

The surrounding area is suddenly full of them like an "ant-heap," and they appear as "pseudo- insects" or sound like a "swarm of bees" (25, 121, 132).

Lem's novel does not merely describe an alien environment, and the unknown life forms are not just narrative objects or characters. It is more sophisticated than that, as the novel carries out the building of hypotheses and theories—about the history of the hostile swarm or about the theory of "swarm intelligence" and animal behavior. It narrates a fascinating story with an explosive showdown, while also reflecting how scientific epistemology works, which here means: shaping ideas of an environment and of quasiliving forms based on scientific knowledge and practices. But the novel also tells another story. With the defeat of the spaceship "The Invincible," Lem tells the story of the decentralization of humans.

The Unconscious: J. G. Ballard's The Drowned World

In J. G. Ballard's post-apocalyptic novel *The Drowned World*, published in 1962, we stay on Earth, but in the near future after a global catastrophe involving fundamental climate change. Gigantic "geophysical upheavals have transformed the Earth's climate," and a series of solar storms diminished the "Earth's gravitational hold upon the outer layers of the ionosphere," meaning that the barrier "against the impact of solar radiation was depleted and temperature began to climb steadily" (21). The change in temperature then caused the polar ice caps to melt, "thousands of glaciers around the Arctic Circle, from Greenland and Northern Europe, Russia and North America, poured themselves into the sea, millions of acres of permafrost liquefied into gigantic rivers" (22). The rising water levels around the globe in turn altered the shape of the continents: The Mediterranean contracted into a system of inland lakes; the British Isles reconnected with northern France; the Midwestern United States became an enormous gulf opening into the Hudson Bay, while Europe became a system of giant lagoons. Although Ballard's novel differs from the present debate on climate change in that there are no anthropogenic causes, the novel still presents a scenario of global warming with geographical, ecological, psychological, and social consequences (Horn, Zukunft 177-80; Schröder).

Ballard's SF novel could be further classified in Murphy's terms as "ecological writing," as it deals with the interconnections of an entire biosphere. But even though these ecological interdependencies appear as part of the novel, they do not figure as crucial elements. Ballard is one of the major representatives of the New Wave in SF, along with authors like Brian Aldiss

and A. Bertram Chandler, who criticize the heroic and scientific focus of most SF writing. In his article "Which Way to Inner Space?" (1962), Ballard points out that SF authors should not write about interstellar travel or galactic wars because the "biggest developments of the immediate future will take place, not on the moon or Mars, but on Earth, and it is *inner* space, not outer, that needs to be explored. The only truly alien planet is Earth" (Ballard, "Which Way" 197; cf. Weber 56).

Rather than turn to the stars, Ballard turns inward. The main topic of The Drowned World is the protagonists' exploration of the unconscious. Still, Ballard represents the "inner space" using "outer space" so that the environment in Ballard's novel weaves together psychological, evolutionary and ecological dimensions. Its narrative structure reverses the deep time of evolution in order to relate the exploration of "inner space" (42), for the process of global warming produces conditions on Earth which are similar to the conditions in the Triassic Period. The changes in temperature, air moisture, and radiation have caused the flora and fauna to transform. Innumerable mutations have occurred, and the organisms have adapted to the new environmental conditions. This backwards evolution has also affected the humans. We see the altering of the external landscape through changes in animals, which appear to mark the (backwards) movement of time like a clock running counterclockwise: The crocodiles and iguanas, huge spiders and anopheles mosquitoes are signs showing "Lamarckism in reverse" (42). The animals in Ballard's novel are inseparable from temporality. As Lena Kugler has shown, modern concepts of time like deep time, physiological time or industrial time are based on knowledge generated with and through animals (Kugler, "Präparierte Zeit"; "Zeit der Tiere"). In this respect, the animals in Ballard's novels are vehicles of evolutionary time, as they demonstrate the process of adaptation after climate change: "Countless mutations" would have transformed "the organisms to adapt them for survival in the new environment" (Drowned World 42).

The process of reverse evolution takes place both in the environment, causing the external landscape to change, as well as in the "inner space" of the humans. Indeed, their exterior does not appear to change, but their interior does: All protagonists have the same dream, in which the vegetation along the limestone cliffs "was flung back abruptly, to reveal the black and stone-grey heads of enormous Triassic lizards" (*Drowned World* 71). At the end of the dream, the water seems to be an extension of their own bloodstream, and so the barriers that divided "his own cells from the surrounding medium" (71) dissolve. One of the characters explains: "Simply

because we all carry within us a submerged memory of the time when the giant spiders were lethal, and when the reptiles were the planet's dominant life form." The new environmental conditions evoke the oldest memories, "the time-codes carried in every chromosome and gene" (43). The analogy to psychoanalysis lies close at hand: Just as psychoanalysis reconstructs a traumatic situation in order to release the repressed content, "so we are now being plunged back into the archaeo-psychic past, uncovering the ancient taboos and drives that have been dormant for epochs.... Each one of us is as old as the entire biological kingdom, and our bloodstreams are tributaries of the great sea of its total memory" (43-44).

Ballard is not, however, drawing from Sigmund Freud but from the discourse on organic memory. The basis of this concept can be found in Ewald Hering's article "Memory as a General Function of Organized Matter" (1902), in which Hering transfers the memory of an individual to organic matter. As in the biography of an individual in which experiences form material traces in the brain, evolution leaves traces in the human body. Thereby the human becomes a document in which one can read the total evolution of man. According to Gottfried Benn's essay "The Structure of Personality" (1930), this "geology of the self" is the central idea of the human sciences in modernity. Ballard's novel is a narrative display of this concept, as the exploration of "inner space" is narrated through the regression of the environment to the Triassic period and the reversal of humans to their evolutionary past, which is embodied in their collective unconscious and manifested in their collective dreams.

A key scene of Ballard's *Drowned World* exposes how different dimensions work together. The protagonist dives to an underwater city—London. His destination is the planetarium, and when he arrives, he sees: "Dimly illuminated by the small helmet lamp, the dark vault with its blurred walls cloaked with silt rose up above him like a huge velvet-upholstered womb in a surrealistic nightmare" (108). Diving into the watery depths appears as a return to his own origin, to the "womb." Moreover, it is a diving into humanity's past: The "cracks in the dome sparkled with distant points of light, like the galactic profiles of some distant universe. He gazed up at this unfamiliar zodiac, watching it emerge before his eyes like the first version of some pelagic Cortez emerging from the oceanic deeps to glimpse the

¹ The title of the German edition is *Über das Gedächtnis als eine allgemeine Funktion der organisierten Materie*, published in 1870.

The original title is *Der Aufbau der Persönlichkeit* (1930).

immense Pacifics of the open sky" (108-09). For the diving protagonist this zodiac brings to mind the "configuration of constellations that had encompassed the Earth during the Triassic Period" (109). The deep waters work as a chronotopos, representing the deep time of evolution and the infinite universe simultaneously. Here again, animals serve as a time scale, for the zodiac is nothing other than a symbolic configuration of animals.

The novel's descriptions of the underwater world and the lagoons focus on the semiotic process of creating a specific image: from the perception of "distant points of light," to the interpretation of these points as a zodiac, to the conclusion that this zodiac represents the geologic past. Still another *poietic* element can be seen in the phrase "surrealistic nightmare" as it relates back to the beginning of the novel, when the protagonist contemplates a painting by Max Ernst that portrays an imaginary jungle landscape, a "selfdevouring phantasmagoric jungles [sic] screamed silently to itself, like the sump of some insane unconscious. For a few moments Kerans stared quietly at the dim yellow annulus of Ernst's sun glowering through the exotic vegetation, a curious feeling of memory and recognition signaling through his brain" (29). Ernst's painting can be read as an illustration of the "real" collective unconscious, but, as an art work which links the jungle and the unconscious, one could also read it as the basis of the construction of the collective unconscious itself. However, instead of pursuing this psychological argument any further, I would like to emphasize the *poietic* element of the text, in which animals, environment and the unconscious form a complex semiotic structure in which each element refers to the other elements.

Living Environment: Dietmar Dath's Pulsarnacht

In Dietmar Dath's novel *Pulsarnacht* (2012), we find ourselves in the remote future: The novel is set in outer space, on different planets and asteroids, in space stations, and space ships, and includes a wide variety of environments and species. In addition to humans, there are humanoid, "Dims," forced to work as slaves. "Binturen" are extremely intelligent quadrupeds with fur and a highly developed olfactory sense, which is why they are described as "dog-like." "Custai" look saurian but walk upright, have several limbs, and require more than two individuals for sexual reproduction; "Skypho" are misconceived as sea dwellers but in fact nobody really understands them: They have no individual names; the grammar of their language only acknowledges verbs; and they do not communicate through visual or acoustic channels. Here again non-human life forms are portrayed through animal

metaphors, or to put it more precisely, the novel portrays alien species as animal-like creatures.

But Dath subverts this rhetorical strategy. The Binturen are not in the least similar to dogs. The Custai do not have a reptile genome; they just remind the humans physically of the reptilian phenotype. The Skypho stay incomprehensible, so when they hum something, nobody knows if they want to express curiosity, appreciation, distrust, disdain, or fear.

The novel also reflects on rhetorical strategies. As one character explains, humans tried to understand alien species according to their own classic definition of intelligence, but they had to drop this mode of understanding. For example, some knowledge about the universe was thought to be based on observations of natural phenomena, but it turned out that the night sky is dotted with artificial objects built by rational creatures. Another character emphasizes the connection between physiology and epistemology in a discussion with the Custai. She tries to explain to them how a supernova might have been caused by the intersection of two magnetic fields by referring to the metaphor of parental units. But, as she points out, they wouldn't be able to think with this metaphor: Since the Custai have more than two parents, they cannot understand the idea of something forming through the fusion of (just) two bodies.

The novel depicts what happens when sentient beings fail to read signs and interpret phenomena. It also presents communication problems involved in interspecies relations. The "pulsar night" brings these elements together as the novel's culminating point. All the different species are watching and waiting for this event, but they interpret it in their own different ways. The Dim integrate it into a mythical narrative, while the humans think it is a physical event that can be explained in scientific terms. The novel is full of instances in which communication breaks down and interpretive traditions come into conflict.

With its manifold characters and multiple narrative threads, Dath's novel is very complex, so I would like to go into detail with just one example that demonstrates the connection between environment and non-human life forms. The novel features a unique setting that combines celestial bodies with living beings: asteroids known as Medea. The Medea are life forms that look like small planets. Every Medea is different in its appearance, physiology, intelligence and language. A few are even willing to communicate with

^{3 &}quot;[I]ch weiß, die Metapher sagt euch nichts, weil eure eigene Scheißfortpflanzung.... Gott ist das frustrierend mit Leuten, die nicht in den richtigen Bildern denken" (98)!

certain other beings. They do not communicate with humans but do with Custai and Skypho. Meanwhile, the Custai do not talk about their contact with the Medea, and although some Skypho do talk about it, it is hard to understand anything that a Skypho tries to communicate.

The Medea "Loyalty" is one of the most important settings in the novel and figures as a living being that is also the environment of the inhabitants. Chapter two begins with one of the protagonists, César, observing a Dim woman who is washing herself. While he is watching her, some small animals begin to crawl on him, light blue animals with ten short legs on an elongated, segmented body, and a head resembling a further, eleventh little leg. These creatures are similar to arthropods and they are everywhere on the Medea, in meadows and trees, in homes and workplaces. The Skypho think that these creatures might be the thoughts of the Medea, because they see a correlation between their communication with them, the force field of the Medea, and the movement of the creatures. In the scene with César, the observer is himself being observed—namely by his living environment, but he does not know what these animals or the Medea want or why they would count the hairs on his hand.

Such animal-like beings are not only in the exterior spaces of the environment, they are also in the inner space of the humans. All humans have "Tlalocs" implanted in their brains, a name that refers to one of the most important Aztec gods, but the name further evokes several other aspects of Dath's novel. For example, Tlaloc is the god of the rains, and in the novel there is a lot of talk about the rain gods, who will be the creators of the "Ahtotüren," short cuts in space and time similar to wormholes. But more importantly, the Tlaloc is the name of a quantum-computer with several special attributes: It increases one's perception. It provides a person with a protective dermal layer, with which one can survive a vacuum, freezing, cold or blazing heat. It can also synchronize the perception and the thoughts of several people. The Tlaloc can even resurrect a dead person with all of the person's personality traits and memory.

On the one hand, the Tlaloc is a technical extension of the body, which turns each human into a cyborg. On the other hand, the Tlaloc ultimately takes control over the whole person, which is a central problem at the beginning of the novel. A soldier, Valentina, is in a hostile environment. She does not know whether she is in a liquid filled with deadly technological things

⁴ "[K]leine, hellblaue Tiere ... mit zehn kurzen Beinchen an einem länglichen, segmentierten Leib, und einem Kopf, der eher einem weiteren, elften Beinchen glich" (80).

swimming around or whether she is inside a living, probably intelligent, being. Nevertheless, she does not turn on her Tlaloc for two reasons: First, there could be sensors which are specially programmed to detect Tlalocs. Secondly, she renounces all technological devices as long as her own intellect and muscle power are sufficient. She perceives the Tlaloc as something other, as she once told an instructor, who did not show her much understanding. The instructor points out, to see the Tlalok as something other would be like differing oneself from the own brain—schizophrenia ("Spaltungsirresein").⁵ The instructor considers the Tlaloc as an integral part of the body. For Valentina, it is a foreign object.

At the end of the novel we find out what is really inside the Tlaloc. It is not a quantum-computer: There are neither batteries nor circuit components. A small, crustacean animal drops out of the device. It resembles in nearly every detail the thought-animals on the Medea (364). César thus concludes that the Tlaloc itself is an autonomous subject, and the human being, constructed around him, is the artificial creation: Man is just a costume for the animal-like being that lives inside the Tlaloc.

In this way, Dath's novel subverts the idea of a definite and autonomous human being. The animal-like beings can be seen as an allegory for the concept of a living (inner and outer) environment, which constitutes the conditions for every living being. By extension, the novel also undermines the idea of a dualism between man and environment, or subject and object. The result is not so much a plea for universal monism but rather a depiction of the ecological concept of adapting to different and dynamic environments.

The novels of Lem, Ballard, and Dath demonstrate that animals and non-human beings in SF have to be considered in relation to their respective environments—and that alien environments have to be considered in relation to their inhabitants: The insect swarm in Lem's *The Invincible* is at a first glance by far more simply organized than human beings, but in the environment of the planet Regis III they are the superior "species." In Ballard's *The Drowned World* animals act as metaphors for the temporal classification of the changing environment and for the past of mankind, which is latent in the personal and collective unconscious. And finally, we find a plurality of environments and different species in Daths *Pulsarnacht*, so that mankind appears as just one species among others.

⁵ "Was anderes als du ... was Fremdes ... den Tlalok so zu sehen, das ist, wie wenn man versucht, sich vom eigenen Hirn zu unterscheiden. Spaltungsirresein" (13).

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Peirce on the Continuity between Human and Nonhuman Minds

The Nonhuman Turn: Precursors and Contemporary Protagonists

To dissuade us from our long-cherished conviction that humans are the crown of all creation has become the purpose of scholars in philosophy and cultural studies who call for a "nonhuman turn." Under this programmatic name, Richard Grusin and the Center for 21st Century Studies announced a new paradigm in the humanities on the occasion of a conference at the University of Wisconsin-Milwaukee in 2015. In his introduction to a collection of papers from this meeting, Grusin explains that the project aims at decentering human beings from their allegedly privileged place in the cosmic design. The twenty-first century's nonhuman turn, as Grusin sees it, "covers a wide variety of recent and current critical, theoretical, and philosophical approaches to the humanities and social sciences ... engaged in decentering the human in favor of a turn toward and concern for the nonhuman, understood variously in terms of animals, affectivity, bodies, organic and geophysical systems, materiality, or technologies" (vii). The cover design of the book edited by Grusin presents the fragments of an electronic circuit board and incomplete drawings of two insects. It thus reduces the plurality of trends under the nonhuman heading to two rather divergent ones, animal studies and the study of digital technologies. The visual argument seems to be that animals and digital technologies are the two major challenges in the current trend of decentering humans towards the nonhuman. Who are the protagonists of this trend? The tentative answers offered in the following have to remain restricted in their focus to the domain of contemporary philosophers who have included animals in their purview, but the scope will extend to some precursors of the current turn towards nonhuman animals.

In 2002, Giorgio Agamben led the way with his reflections on the nature of the animal *in the human*, proposing a philosophy of the nonhuman under the title *The Open*, with the subtitle *Man and Animal*. With reference to Carl Linnaeus' *Systema Naturae* of 1735, Agamben expounded how much the tradition of humanism had neglected the continuity between the biological species of humans and apes (24). For Agamben, the insistent attempts of humankind to define itself as a species separate from all other animals is the

product of an "anthropological machine" constructing the human species as separate from nonhuman ones:

Homo sapiens, then, is neither a clearly defined species nor a substance; it is, rather, a machine or device for producing the recognition of the human.... It is an optical machine constructed of a series of mirrors in which man, looking at himself, sees his own image always already deformed in the features of an ape. Homo ... must recognize himself in non-man in order to be human. (26-27)

Derrida followed next in the philosophical turn towards the nonhuman, when he addressed the relationship between human and nonhuman animals in *The Animal that Therefore I Am* of 2006 and in *The Beast and the Sovereign 1* and 2.

Even a philosopher of the nonhuman so far renowned only for contributions to the philosophy of technology, Gilbert Simondon, became known for philosophical reflections on animals. His *Two Lessons on Animal and Man*, originally a manuscript of lectures delivered in the 1960s, were published posthumously in 2004 and became translated to English in 2011. That Simondon's ideas on animals could attract attention in the wake of the nonhuman turn is somewhat surprising, for the French philosopher sought inspiration in the rather anthropocentric doctrine of animal instincts of the Stoics, a doctrine quite retrograde from the perspective of modern behavioral biology. As Simondon presents it, instinct in animals is "essentially comprised of automatism" and "what the animal does that resembles man, it does by instinct. Whatever this may be, man does it by reason" (55).

Despite these outdated anthropocentric premises, Simondon's *Two Lessons* are still readable because they offer a broad historical panorama of ideas on animals, ranging from the Presocratics to the classics of French philosophy. They also present remarkable insights on the mechanical side of the nonhuman. The antipodes in Simondon's panorama are Montaigne and Descartes. The author characterizes the former as a monist and the latter as a dualist. Montaigne "is fundamentally a monist, which is to say, all psychical faculties existing in animals are the same as those existing in man. For Montaigne, animals judge, compare, reason, and act the same as man; the same and even better" (70). These ideas certainly position Montaigne as a philosophical precursor to the philosophical turn towards nonhuman animals.

Simondon's summary of Descartes' dualist position is that Cartesian animals are creatures without intelligence, instinct, and, of course, without a soul. Animals are restricted to the physical sphere of *res extensa*, where they act as machines or automata, whereas humans, endowed with a soul,

consist both of *res extensa* and of *res cogitans*. Only they are thinking beings. To attribute reason to animals is an offense second only to blasphemy, "for after the error of those who deny the existence of God ..., there is none that is more powerful in leading feeble minds astray from the straight path of virtue than the supposition that the soul of the brutes is of the same nature with our own" (*Discourse on M.*, pt. 5).

Simondon's panorama of the philosophical ancestors of nonhuman studies does not include the radical ideas entertained by Julien Offray de *La Mettrie*, which also deserve mention in the context since *La Mettrie* inverts Montaigne's humanistic perspective on animals by attributing to both animals and humans a mechanical nature. In his book entitled *L'homme machine* of 1748, La Mettrie provokes his readers with the argument that not only animals but also humans are machines, with the only difference, that humans are "enlightened machines" ("machines bien éclairées").

Evidence for the recent turn away from anthropocentrism also comes from the contemporary philosophy of consciousness, the mental state that René Descartes emphatically denied to nonhuman animals, when he declared that only a creature endowed with a soul could qualify as a conscious being. Michael Tye, a renowned philosopher of consciousness, raises the question whether animals are conscious beings. In his recent book *Tense Bees and Shell-Shocked Crabs*, he answers this question affirmatively on the premise that "a being is conscious just in case it undergoes experience, so that the problem of animal experiences is one and the same as the problem of consciousness" (xv). Tye is also an advocate of the extension of the scope of nonhuman studies from living beings to lifeless creatures. The author not only gives evidence of consciousness in biological organisms, including those of lesser biological complexity, such as fish, honeybees, crabs, caterpillars, protozoa and plants, he also refrains from denying feeling and consciousness to complex robots.

Brian Massumi's Answers to the Question of What Animals Teach Us about Politics

Under the thought-provoking title, *What Animals Teach Us about Politics*, Brian Massumi's 2014 book is a philosophical manifesto of twenty-first century nonhuman studies. If animals are agents in politics, Massumi's title can well be read as an allusion to the "Parliament of Things" convoked by Bruno Latour in 1991 in the last chapter of *We Have Never Been Modern*, where the author formulates a plea for the rights of material objects and for a philoso-

phy of the nonhuman, acknowledging the agency and even the rights of objects. Massumi characterizes his project of rethinking the place of humans in the universe by denouncing anthropocentric thought as a symptom of human arrogance:

The hope is that ... we might move beyond our anthropomorphism as regards ourselves: our image of ourselves as humanly standing apart from other animals; our inveterate vanity regarding our assumed species identity, based on the specious grounds of our sole proprietorship of language, thought, and creativity. (3)

Massumi's manifesto makes a case for a change of direction towards a world in which humans and animals may truly coexist. The author formulates his answer to the question of what animals teach us about politics in the form of fourteen "propositions" (38-54), condensed into four (M1-M4) in the following:

- M1. Reflexive consciousness, language and thought. Animals must no longer be studied in terms of animal behavior, a term that smacks of behaviorism anyway. Instead, we should turn to the study of "animal thought and its distance from or proximity to those capacities over which we human animals assert a monopoly and on which we hang our inordinate pride in our species being: language and reflexive consciousness" (2).
- M2. Reasoning and creativity. Instinct is not a blind mechanism by which animals act quasi-automatically, as even the cofounder of modern ethology Niko Tinbergen claimed in his studies of the begging behavior of herring-gull chicks of the 1950s and 1960s. Massumi rejects the assumption that animals behave according to a logic of inborn necessity and postulates instead that they think according to a logic of abduction allowing for creativity in the pursuance of their goals. He revealed that Tinbergen, ironically, ignored the proximity between animal and human reasoning and went so far as to describe the animal as "a machine, albeit one of 'great complexity' ..., like a 'slot machine'" (16). Against Tinbergen's "rigid image of the animal as a mechanism dominated by an automatism," Massumi argues that "instinctual movements are animated by a tendency to surpass given forms ... [and] are moved by an impetus toward creativity. No efficient cause can be singled out as pushing this movement of experience's self-surpassing from behind" (17).
- M3. *The human-animal continuum*. Against Tinbergen's interpretation of animals as complex machines, Massumi puts forward the argument that animals evince "*a first degree of mentality* in the continuum of nature" (17) so that the polarized opposition between humans and animals needs to

be abandoned and redefined in terms of a continuum. "Replacing the human on the animal continuum ... must be done in a way that does not erase what is different about the human but respects that difference while bringing it to new expression *on* the continuum: immanent to animality" (3).

M4. *Logic of mutual inclusion*. Massumi pleads for rethinking humans as animals and for introducing a logic of "mutual inclusion: that of the animal and the human," with the implication that "it is animality and humanity as a whole, and in their difference, that have paradoxically entered into a zone of indiscernibility" (7).

How Peirce Anticipated Issues of Contemporary Nonhuman Studies

Charles Sanders Peirce (1839-1914), the founder of the philosophy of pragmatism, anticipated key concepts of the contemporary turn towards nonhuman studies in his philosophy of nature and cognition. The continuity between human thought and nonhuman nature was one of the guiding principles of his evolutionary philosophy, formulated in his doctrine of synechism (the dogma of continuity). Key notions of the current turn towards nonhuman animals, such as animal consciousness (Tye), selfhood (Colapietro; Irvine), creativity and innovation (Kaufman and Kaufman), anthropocentrism (Boddice), or animal reasoning (Gould and Gould), are recurring topics in his writings.

The following sections examine four of these issues to show how Peirce anticipated Massumi's four "propositions" M1 to M4. Parallel with Massumi's deliberations on reflexive consciousness (M1), the first of these sections addresses Peirce's ideas on nonhuman consciousness. The following sections on "Animals as Rational Beings," "The Continuity Between Human and Nonhuman Minds," and "Humans as Animals" present parallels with Massumi's thoughts introduced above under M2, M3, and M4, respectively.

Peirce on Nonhuman Consciousness

Anticipating Massumi's premise M1 that nonhuman animals evince reflexive consciousness, too, as well as Tye's philosophy of consciousness in nonhuman animals, Peirce defined consciousness and experience as quasi-synonyms when he used the terms "categories of experience" and "categories of consciousness" interchangeably (*Collected P.* §§ 1.377, 7.524). He distinguished

three modes of consciousness, the first associated with feeling (Firstness), the second with otherness, resistance, action and reaction (Secondness), and the third with signs, mediation, and reason (Thirdness). Peirce claimed that all of these modalities of conscience could be found, to different degrees, both in human and in nonhuman animals. As to the first, consciousness of feeling, Peirce argued that it is even more vivid in animals than it is in humans:

Consciousness ... is rather an ambiguous term. There is that emotion which accompanies the reflection that we have animal life. A consciousness which is dimmed when animal life is at its ebb, in age or sleep, but which is ... more lively the better *animal* a man is, but is not so the better man he is. You can all distinguish this sensation I am sure; we attribute it to all animals ... because we have reason to believe that it depends upon the possession of an animal body. (*Collected P.* § 7.585)

What the consciousness of feeling means in human and nonhuman animals is the topic of the fragmentary manuscript, "The Ground-Plan of Reason," of 1910 in which Peirce elaborates on the following:

Beasts and birds, tortoises and toads, and even some fishes ... must feel, it would seem, if they are living things in a sense resembling in the least degree what any-body means when he says that he is alive, that is, if he has any inside life,—anything in which nobody else and nothing partakes with him. This seems to be precisely what we mean by *Feeling*: it is that which is within some single person and which nobody else has anything to do with. (*CSP Papers*, ms 658: 2-3)

What can humans know about the consciousness of feeling in animals at all? Thomas Nagel addressed this question in his much-quoted paper "What is it like to be a bat?" of 1974, and in the context of Nonhuman Studies, Steven Shaviro has shed new light on the issue. The question is whether a human being can have knowledge about feelings and perceptions of nonhuman animals, such as a bat, at all. Since "the bat's thinking is inaccessible to us, we should not anthropomorphize the bat's experience by modeling it on our own. But we also should not claim that, just because it is nonhuman, or not like us, the bat cannot have experiences at all" (25-26).

Peirce's answer to the question of whether we can know how other living beings feel is both no and yes, but also that it makes no difference whether the other mind is a human or a nonhuman animal. Since a feeling "is something that but one mind can have" (CSP Papers, ms 658: G8), we need to recognize that any feeling as such must remain unintelligible. "To comprehend it or express it in a general formula is out of the question" (Collected P. § 5.49). Nevertheless, it is undeniable that animals do have feelings because the fact that they feel can be inferred from the signs of feeling

they give and from the commonsensical assumption that the life of animals must evince analogies to the life of humans. Animals "must feel ... in a sense resembling in the least degree what anybody means when he says that he is alive" (*CSP Papers*, *ms* 658: 3).

Animals as Rational Beings: Instinct and Abductive Reasoning

With his reference to "animal thought" (M2), Massumi takes a stand against the doctrine, at the root of Western anthropocentric thought, that only humans are thinking beings. Aristotle had divulged this doctrine with his concept of the "rational animal" ($\zeta\bar{\omega}ov\lambda\delta\gamma v$ $\xi\chi vv$, NE, 1098a3-5) by which he defined the nature of humans in contrast to nonhuman animals as nonrational beings. In his *Pensées*, Pascal had formulated the doctrine that only humans, but not animals think in his famous dictum, "Man is but a reed ..., but he is a thinking reed" (fragm. 348).

Peirce anticipated Massumi's plea to recognize that animals are thinking beings in many refutations of the denial of reason to animals. Animals not only think and have ideas; they also reason, according to Peirce. Against the hubris of humans who believe that only they are rational beings, his polemical counterargument is the following:

In practical affairs, in matters of vital importance, it is very easy to exaggerate the importance of ratiocination. Man is so vain of his power of reason! It seems impossible for him to see himself in this respect, as he himself would see himself if he could duplicate himself and observe himself with a critical eye. Those whom we are so fond of referring to as the "lower animals" reason very little. Now I beg you to observe that those beings very rarely commit a mistake, while we—! We employ twelve good men and true to decide a question, we lay the facts before them with the greatest care, the "perfection of human reason" presides over the presentment, they hear, they go out and deliberate, they come to a unanimous opinion, and it is generally admitted that the parties to the suit might almost as well have tossed up a penny to decide! Such is man's glory! (*Collected P.* § 1.626)

In 1898, Peirce referred to the ideas of humans as "quite as miraculous as those of the bird, the beaver, and the ant" (§ 5.480), and in an autobiographical note concerning the rationality of nonhuman animals of 1901, he wrote:

The psychological instructors of my college days used to tell me that when a dog is observed to act as if he had reasoned, he was really acting, not from reason, but from "the association of ideas." But more advanced study taught me that that was a shocking abuse of a phrase which was invented to mark the greatest discovery

ever made in the science of mind, namely, that all the operations of the soul take place according to one general formula which applies to reasoning and instinctive action alike. . . Then in 1863 came Wundt's *Lectures of the Minds of Men and Brutes*, which so emphasized the analogy between the dog's process of thought and that of the philosopher, that I, for once, lost sight, for a time, of the distinction my old professors had made, a distinction of substantial importance, notwithstanding their vicious way of expressing it. Certainly, dogs do, occasionally, really reason. (*CSP Papers, ms* 691)

Peirce attributed the consciousness associated with reason and reasoning (his consciousness of Thirdness) and even some form of self-consciousness without exception but with due differentiation to all animals. Animals, he argued in contrast to Descartes, Tinbergen, Simondon, and "the psychological instructors of his college days" do not act by blind instinct, but are reasoning beings, even endowed with the capacity of modifying their instinctual behavior through "self-critical" thought. With reference to research findings of behavioral biologists of his time, which showed that animals are able to change seemingly inborn habits in order to adapt to environmental changes within their lifetime, he argued:

When the minds of the lower animals first began to be studied, it was the unchangeableness of animals' methods that led observers to draw a sharp line of demarcation between Instinct and Reason. But facts subsequently came to light showing that that fixity was only relative, that bees in a clime of perpetual summer, after some generation give up storing vast quantities of honey; that beavers, provided with new material, gradually evolve new styles of architecture; that sheep, carried to valleys where poisonous hellebore grows, learn not to eat it; that birds sometimes take to unaccustomed food, and come to prefer it.... Such phenomena evince an element of self-criticism and therefore of reasoning. (CSP Papers, ms 831: 12-13)

When Massumi interprets "animal behavior" as creative (M2), his argument finds support in such examples, and when he attributes the capacity for abductive reasoning to nonhuman animals, he uses a concept coined by Peirce. Like induction and deduction, abduction is a mode of reasoning. Whereas the former modes are more typical of human reasoning, the latter is a characteristic of both human and nonhuman animals. Abduction is the instinct of guessing correctly, the intuitive "faculty of divining the ways of Nature" (*Collected P.* § 5.173), but by this method we reason neither "blindly" nor mechanically. Abduction is an uncertain hypothetical mode of reasoning, which enables us to arrive at truths with a probability higher than chance since "although the possible explanations of our facts may be

strictly innumerable, yet our mind will be able, in some finite number of guesses, to guess the sole true explanation of them" (§ 7.219). In c. 1907, Peirce draws the following parallel between abductive reasoning in human and nonhuman animals:

Our faculty of guessing corresponds to a bird's musical and aeronautic powers; that is, it is to us, as those are to them, the loftiest of our merely instinctive powers. I suppose that if one were sure of being able to discriminate between the intimations of this instinct and the self-flatteries of personal desire, one would always trust to the former. For I should not rate high either the wisdom or the courage of a fledgling bird, if, when the proper time had come, the little agnostic should hesitate long to take his leap from the nest on account of doubts about the theory of aerodynamics. (Collected P. § 7.48)

Peirce's most detailed objection against the view that instinct operates blindly in animals can be found in his manuscript "On the Essence of Reasoning and its Chief Varieties" of 1911 in which he criticizes the dichotomy of reason and instinct as false. It begins with another autobiographical reminiscence:

Some seventy years ago, my beloved and accomplished school-ma'am taught me that human kind, being formed in the image of our Maker, were endowed with the power of Reasoning, while "the animals," lacking that power, (which might have made them dissatisfied,) received, each kind, certain "instincts" to do what was generally necessary for their lives. At least, so I understood her. But when I subsequently came to observe the behaviors of several big dogs and little birds and two parrots, I gradually came to think quite otherwise. For, in the first place, I gradually amassed a body of experiences which convinced me that many animals, perhaps all the higher ones, do reason, if by Reasoning be meant any mental operation which from the putting together of two believed facts leads to a Belief different in substance from either of those two. (CSP Papers, ms 672, II.1-2)

The mode of reasoning in domestic animals that Peirce describes in this manuscript is not only the one of abduction (for which there is an example in a passage omitted above) but also the one of deduction, that is, the derivation of a conclusion (a new belief) from two premises ("believed facts").

The Continuity Between Human and Nonhuman Minds

For Peirce, the continuity between human and nonhuman beings is not a matter of the continuity between beings with and without minds, but one between organisms of less and more complex mental powers. Animals have minds, "however strange they be,— such as the medusae, and even down to

the very [microscopic organism of the] moner, ... each has something like a mind with the two fundamental mental powers" of Feeling and Effort (*CSP Papers*, *ms* 659, G'2-G"3).

The argument that there is more continuity between human and nonhuman animals than discontinuity (M3) pertains to Peirce's theories of synechism, "the doctrine that all that exists is continuous" (Collected P. § 1.72), and the anti-individualism (Oleksy) associated with it. Peirce denounced the philosophy of dualism as a method "which performs its analyses with an axe, leaving as the ultimate elements, unrelated chunks of being" (§ 7.570). Synechism is equally incompatible with individualism. Since "every point directly partakes the being of every other, ... individualism and falsity are one and the same" (§ 5.402, fn.). The very notion of an individual, based on the idea of a "separate existence ... apart from one's fellows" deserves to be denounced as a manifestation of "ignorance and error" (§ 5.317). Peirce rejected it both as an explanatory principle of economic growth and as determinant of biological evolution. As to the former, he criticized the nineteenth century conviction "that progress takes place by virtue of every individual's striving for himself with all his might and trampling his neighbor under foot whenever he gets a chance to do so" as "the Gospel of Greed" (§ 6.294). As to the latter, he rejected Darwin's principle of the "struggle of life" and criticized it sharply: "Among animals, the mere mechanical individualism is vastly reinforced as a power making for good by the animal's ruthless greed. As Darwin puts it on his title-page, it is the struggle for existence; and he should have added for his motto: Every individual for himself, and the Devil take the hindmost!" (§ 6.293).

Both dualism and individualism are incompatible with the supreme principle of evolution that Peirce defined as *agapasm* (evolutionary love), the final cause of evolutionary growth, creativity, and diversity, a universal tendency, according to which "advance takes place by virtue of a positive sympathy among the created springing from continuity of mind" (§ 6.304).

Minds, for Peirce, are open systems, whose main characteristic is not monadic isolation and individuality, but continuity in time and space. There is not only continuity between the minds of animals and humans but also between the ones of different human beings, insofar as they share feelings, experiences, and beliefs, argues Peirce. When two individuals have the same thoughts and feelings, they are no longer mutually isolated individuals, but minds between which there is continuity (Lane 6). This is why "the vulgarest delusion of vanity" is to say, "I am altogether myself, and not at all you" (Collected P. § 7.571). Those who claim to have had experiences all of their own

commit the error of believing that the signs they interpret are all theirs. After all, we are neither the creators of the signs we interpret nor the constructors of the reality that our signs represent. Peirce concludes,

[w]hen we come to study the great principle of continuity ..., it will appear that individualism and falsity are one and the same.... One man's experience is nothing, if it stands alone. If he sees what others cannot, we call it hallucination. It is not "my" experience, but "our" experience that has to be thought of; and this "us" has indefinite possibilities. (*Collected P.* § 5.402, fn. 2)

The continuity between nonhuman and human animals is Peirce's topic in a manuscript of 1903, titled "The communicability of feelings," (§ 1.314-16) in which the author reflects on the possibility of knowledge about the "emotions of affections" of his domestic animals with the following common-sense arguments:

You would never persuade me that my horse and I do not sympathize, or that the canary bird that takes such delight in joking with me does not feel with me and I with him; and this instinctive confidence of mine that it is so, is to my mind evidence that it really is so. My metaphysical friend who asks whether we can ever enter into one another's feelings ... might just as well ask me whether I am sure that red looked to me yesterday as it does today and that memory is not playing me false. (Collected P. § 1.314)

Likewise, it is reasonable to assume that animal perceptions are not fundamentally different from human ones. Why should the color perception of a bull irritated by a red rag be fundamentally different from the color perception of a human observer?

I am confident that a bull and I feel much alike at the sight of a red rag.... I know experimentally that sensations do vary slightly even from hour to hour; but in the main, the evidence is ample that they are common to all beings whose senses are sufficiently developed.... I hear you say: "This smacks too much of an anthropomorphic conception." I reply that every scientific explanation of a natural phenomenon is a hypothesis that there is something in nature to which the human reason is analogous. (Collected P. § 1.314-16)

In sum, although feeling is accessible only to the one who experiences it, we can and must infer by analogy that others, animals and humans, do have feelings just as we have. We must recognize that our assumptions about the modes of experience and thoughts of others require the same kind of inference.

Humans as Animals

Forerunners of Massumi's plea for considering humans as animals and for adopting a logic of mutual inclusion (M4) can be found in various of Peirce's comparative analyses of human reasoning and animal instincts. The first is implied in the above-quoted argument of 1866 that consciousness of feeling is more vital in animals than in humans, which follows from the premise that in a human being, this mode of consciousness is "more lively the better animal a man is" (*Collected P.* § 7.585). Human reasoning is superior to the reasoning of which animals are capable, but human instincts are less well developed since they "are not so detailed and featured as those of the dumb animals" (§ 1.638). Reason is superior to instinct insofar as it can be checked and controlled by reason itself, but "Reason is inferior to Instinct" insofar as "it is less subtle, less ready, less unerring.... There is no such thing as bad instinct, unless it be bad in the eyes of something else" (*CSP Papers, ms* 832, 1).

The second respect in which Peirce anticipates Massumi's proposition M4 is his argument of 1902 that "animal and vegetable instinct ... throw much light on man's nature" (§ 1.266), which implies a plea for considering humans from the perspective of their nonhuman evolutionary heritage. The logic of inclusion behind this argument is the one of abductive reasoning. It reveals that "all human knowledge, up to the highest flights of science, is but the development of our inborn animal instincts" (§ 2.754).

The third appears in a number of passages in which Peirce refers to a human being in expressions such as "human animal" (§ 4.644) or "some person or other animal; in every case, therefore, ... an animal" (*CSP Papers, ms* 659, G"10). The definition of human beings (persons) as animals and the inclusion of nonhuman beings in the same class is perhaps most explicit in a manuscript of 1910:

By a "person," by the way, I suppose we mean an animal that has command of some syntactical language, since we neither call any of the lower animals persons, (for though they be able to convey their meanings by various sounds, they do not combine different sounds so as to build sentences,) nor do we so call an infant that cannot yet put two words together to make a sentence. One might almost define a person as an animal possessed of moral self-control; but that would not be correct unless we were prepared to call some dogs, horses, parrots, hens, and other creatures persons, which I take it nobody does, in spite of the moral respect to which they are often well-entitled. One feels that there is an injustice in our non-expression of respect for them. Yet after all, the word *person*, PERSONA, has explicit reference to speech. (*CSP Papers*, *ms* 659: 10-11)

The Common Root of Humans and Nonhumans in the Quasi-Mind of Cosmic Design

For Peirce, human and nonhuman nature have a common root in what he defines as mind, thought, or semiosis. What he means is not the mental process in, or the actual thought of, an individual, but thought in a sense in which it "is more without us than within" and in which "it is we that are in thought, rather than thought in any of us" (*Collected P.* § 8.256). Mind, in this sense, manifests itself as the "active power to establish connections between different objects, ... [the] power of ... a living consciousness, such [as] the life, the power of growth, of a plant" (§ 6.455). Its prototype is the process of semiosis, "semeiosy, or action of a sign" (§ 5.473). Semiosis, in this perspective, is a process in which signs grow (Nöth). Thought thus defined "appears in the work of bees, of crystals, and throughout the purely physical world," for "not only is thought in the organic world, but it develops there" (§ 4.551).

Semiosis as a creative agent in nature manifests itself not only inside and outside the minds of humans, but even outside the minds of nonhuman animals, in plants and in certain respects also in nonorganic nature. Faithful to the doctrine of continuity, Peirce rejects the conception of a semiotic universe in opposition to a nonsemiotic one. There are not only signs in human minds and culture; signs are omnipresent in all nature. Quite in the spirit of synechism, Peirce also reflects on the possibility of sign processes outside animal minds, but when he considers rudiments of semiosis outside minds proper, he introduces concepts such as "quasi-minds" and "quasi-signs" § 4.550). A sunflower is his example of a vegetative agent interpreting a quasi-sign (here called "representamen") in a process of quasi-semiosis:

If a sunflower, in turning towards the sun, becomes by that very act fully capable, without further condition, of reproducing a sunflower which turns in precisely corresponding ways toward the sun, and of doing so with the same reproductive power, the sunflower would become a Representamen of the sun. (§ 2.274)

In his most radical tentative definition of the nature of semiosis, in which Peirce suggested, "that the entire universe ... is perfused with signs, if it is not composed exclusively of signs" (§ 5.448, fn. 2), semiosis becomes a metaphysical issue. The implication of pansemiotism that it seems to have brings Peirce's ideas close to panpsychism, "very roughly the thesis that everything is (or at least some things are) fundamentally physical *and* fundamentally mental" (Chalmers, 21), which is currently being revived in the

contexts of object-oriented philosophy (Shaviro) as well as in the philosophy of mind and of its extension in the mind's extension into its environment (Chalmers).

Was Peirce an advocate of panpsychism or at least pansemiotism? The question needs to be explored elsewhere in more detail, but two answers may be anticipated here. First, Peirce would certainly have objected to the term "panpsychism" because his semiotics is not a psychical or psychological theory; it is the theory of a logic in a new guise. For him, the universe is not permeated with psychical phenomena, but with signs.

Second, Peirce's semiotics deals with the life of signs, not with dead matter or with mechanical processes that obey necessary laws. The life of signs presupposes semiotic mediation and growth. Neither immutable necessity nor precise predictability of things to come belong to the semiotic universe. The universe of physical processes has also a potential for growth and creative evolution. This is what Peirce means with his Schelling-inspired dictum that "what we call matter is not completely dead, but is merely mind hidebound with habits. It still retains the element of diversification; and in that diversification there is life" (§ 6.158).

Conclusion: A Glance at the Other End of the Continuum

Peirce does not fail to address the semiotic capacities that make humans unique among all other animals, but he argues that there is hardly any human capacity for which there are no precursors in nonhuman animals. The ultimate goal, the *summum bonum*, namely, "to further the development of concrete reasonableness" (§ 5.3), "to make one's life more reasonable" (§ 1.602), is a task that can only be promoted by human endeavor, reasoning in the sense of "thought subjected to logical self-control," which, in turn, must have "effective ethical self-control" as its regulating agent (§ 5.533). Paraphrasing Peirce's ideas on how humans thus distinguish themselves from animals as "rational beings," Potter writes, "It is this capacity for critical review and control of actions and of habits of action which for Peirce defines reason.... Man is a rational animal whether he likes it or not; ... he is compelled to make his life more reasonable and in this lies his true dignity and liberty" (125).

Self-control is a matter of degree. The lowest degree can be found in nature, whereas the highest, including self-control through creative imagination and ethical principles, are distinctly human. The continuum begins with inhibitions and coordinations that entirely escape consciousness. There are, in the next place, modes of self-control which seem quite instinctive. Next, there is a kind of self-control which results from training. Next, a man can be his own training-master and thus control his self-control. When this point is reached much or all the training may be conducted in imagination. When a man trains himself, thus controlling control, he must have some moral rule in view, however special and irrational it may be. But next he may undertake to improve this rule; that is, to exercise a control over his control of control. To do this he must have in view something higher than an irrational rule. He must have some sort of moral principle. This, in turn, may be controlled by reference to an esthetic ideal of what is fine. There are certainly more grades than I have enumerated. Perhaps their number is indefinite. The brutes are certainly capable of more than one grade of control; but it seems to me that our superiority to them is more due to our greater number of grades of self-control than it is to our versatility. (Collected P. § 5.533)

What humans and animals have in common is that "the ultimate purpose of thought, which must be the purpose of everything, is beyond their comprehension," observes Peirce (§ 5.403, fn. 3). However, humans can and do reach out actively in the search for this purpose through self-controlled thought, in a way which Peirce paraphrases as follows: "It is by the indefinite replication of self-control upon self-control that the *vir* [the distinctly human] is begotten" (§ 5.403, fn. 3). Furthermore, in their capacity of self-knowledge, the knowledge of their own identity, humans "far transcend the mere animal" (§ 7.591). Despite the incapability of knowing our "own essential significance" that we share with all animals, we have "this outreaching identity ... [that] is the true and exact expression of the fact of sympathy, fellow feeling—together with all unselfish interests—and all that makes us feel that he has an absolute worth" (§ 7.591).

The context of Peirce's remark, that the ultimate significance of life is beyond human understanding, deserves closer attention, not least because it contains a quote from a half-line of the 14th stanza of Emerson's poem of 1841, *The Sphinx*. The full context of Peirce's argument is expressed in the sentence, "He cannot know his own essential significance; of his eye it is eyebeam" (§ 7.591). In the quoted poem, it is the Sphinx who utters the words "Of thine eye I am eyebeam," spoken to the traveler and poet-philosopher who dared to address her. To what extent can these words elucidate Peirce's argument?

The traveler's eye stands metonymically for his mind, and the eyebeam refers to his seeing. The traveler-poet believes to see the object in front of him, the Sphinx, but the Sphinx refutes this belief when she pronounces that she is this eyebeam herself. By this, she declares that she stands between

the traveler's eye and the object of his presumed vision, which means that the traveler cannot really see her. This is why Emerson's poetic scenario can elucidate Peirce's argument. Just as the traveler-poet cannot actually see what he believes to see, humankind cannot know what its ultimate destiny is.

Although the essential significance, the ultimate meaning, of life is beyond human understanding, Peirce attributes to humans the capacity of knowing the ethical grounds of their identity. It is "the fact of sympathy, fellow feeling—together with all unselfish interests" which make us feel that life has "an absolute worth" (§ 7.591). In this respect, human beings are "conscious of their interpretant" (§ 7.591), that is, they are aware of the meaning of their existence. The interpretant (or meaning) of the life of a human being consists in finding again his or her "thought in other minds" (§ 7.591). Peirce's conclusion on these premises concerning the nature of humans is "that nothing but an undue ascendency of the animal life can prevent the reception of this truth" (§ 7.591).

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"Il n'y a pas de chats": Feline Absence and/as the Space of Zoopoetics

Everyday language calls a cat a cat, as if the living cat and its name were identical, as if it were not true that when we name the cat, we retain nothing of it but its absence, what it is not. (Blanchot 325)

1. Asymptote

In 1920, Rainer Maria Rilke wrote the preface to *Mitsou*, a collection of forty black ink drawings by Balthasar Klossowki, better known as Balthus (or Baltusz), the eleven-year-old son of the artist Elizabeth "Baladine" Klossowska, who was Rilke's lover at the time. The drawings tell the story of how young Balthus finds a stray tomcat, whom he names Mitsou. The two engage in carefree cross-species companionship, and the occasional bit of mischief, until one day Mitsou runs away and is never seen again. Balthus searches in vain for the missing cat and the final image shows him, weeping and abandoned, in his now-empty room. Rilke was so taken with these drawings that he promptly arranged for them to be published.

The rather whimsical preface, which he wrote in French, is remarkable not only as a document of Rilke's zoopoetics, and indeed of zoopoetics more generally, but also, and this is what makes it particularly relevant to the present volume, for the way it weaves together the question of the animal and the question of language and artistic representation with the problem of the *world* or *worlds* inhabited by humans and nonhumans. In this way, the text may serve as an invitation to consider how zoopoetics and ecopoetics—conceived as creative, multispecies engagements with more-than-human forms of life and the environments in which "we" dwell—are unavoidably and productively entangled.

The preface begins as follows: "Does anyone know cats? Do you, for example, think that you do? I must admit that I have never considered their existence to be more than a fairly bold hypothesis" (9). In order for animals

There are, to my knowledge, three published translations of this text into English—by Richard Miller, Stephen Mitchell, and Damion Searls, respectively. I have opted to refer

to "share our world," he continues, they must somehow "participate in it," if only a little. Dogs, for instance, appear to inhabit a world related to our own, a fact which is evident in the determination with which they acknowledge our presence, even if it forces them to live "at the very limits of their nature" to the point that they appear to have "abandoned their most primal canine traditions" in favor of seeking admittance into our world. This is what makes them "tragic and sublime" (9). Dogs, Rilke feels, are always on the cusp of leaving their canine world behind completely and joining us in ours, at which point they would cease to be dogs altogether.

Cats, by contrast, are simply cats, and they show no ambition to become anything else, least of all for our sake: "Their world is utterly, through and through, a cat's world" (9). What is more, there is no overlap between this feline world and the world of men. Certain individuals, Rilke grants, are occasionally admitted into the presence of cats, but even these fortunate ones will inevitably find themselves "rejected and denied," banned from entering the cats' world, "a world which they inhabit exclusively, surrounded by circumstances that none of us can ever guess" (10). Hence, even if you think your cat is looking at you—in the morning, in the bathroom, say—in fact you cannot be certain that she has ever truly deigned to register your "futile image" on the surface of her retina. If there is any reciprocity in this relationship, it lies in the fact that cats seem to find our existence equally implausible as Rilke does theirs:

Has man ever been their contemporary? I doubt it. And I can assure you that sometimes, in the twilight, the cat next door pounces across and through my body [*à travers mon corps*], either unaware of me or to prove to the dumbfounded things [*choses ahuries*] that I really don't exist. (10)

The preface as a whole is written in the spirit of consolation for the loss of the kitten. This consolation proceeds along two separate and seemingly irreconcilable lines of argument, both of which concern the impossibility of losing a cat: On the one hand, Rilke implies that the reason you cannot really lose a cat is that, in fact, cats do not exist, and hence it is impossible ever to have found one in the first place. Interestingly, this form of consola-

to Miller's translation, which is the most fluent. This is in part because it is freer than the other two, which also unfortunately makes it somewhat inaccurate in places. Miller inexplicably changes Mitsou's gender from male to female, for instance, and there are various other idiosyncrasies in the text. I have thus taken the liberty of silently amending or modifying it in order to preserve a specific nuance, supplying the original French wherever necessary.

tion is aimed not at young Balthus, who, in producing these forty drawings, has evidently been able to work through his loss and thus "fulfilled [his] obligation" to the absent feline; rather, it is the *reader*, whose final image of Balthus remains that of the forlorn child, "bathed in tears at the end of [the] book," who must be reassured. Thus, the preface concludes on the following enigmatic note: "Don't worry: I am [*je suis*]. Baltusz exists. Our world is sound. // There are no cats [*il n'y a pas de chats*]" (13).

On the other hand, Rilke writes that even if you do find a cat—which would imply that there are, in fact, cats to be found, even if, as he puts it, finding a cat is "unheard of" (12)—owing to the asymptotic noncontemporaneity of the human and feline worlds, a cat never truly becomes part of your life, and hence it was never *your* cat to lose in the first place. Instead, the relationship between owner and cat can only be expressed in the irreducible formula "life + a cat", a formula which, Rilke writes, "adds up to an incalculable sum" (12). It produces a surplus which persists even once one has lost the cat again, and which renders that loss impossible. This surplus, this palpable absence, is what Balthus has transformed into his forty drawings:

No one has ever lost a cat. *Can* one lose a cat, a living thing, a living being, a life? But to lose a life: is death [c'est la mort]! . . .

Finding, losing. Have you really thought what loss is? ... [L]oss, cruel though it may be, cannot prevail over possession; it can, if you like, terminate it; it affirms it; in the end it is like a second acquisition, but this time wholly internal, intense in a different way.

Of course, you felt this, Baltusz. No longer seeing Mitsou, you set about seeing him even more.

Is he still alive? He lives within you, and his insouciant kitten's frolics that once diverted you now compel you: you fulfilled your obligation through your laborious sorrow. (12-13)

This "laborious sorrow" is a poietic response to the absence, to the loss of the other, which is always singular and irreplaceable, and whose death, to quote Jacques Derrida, marks not just the end of a world or of someone in the world, but "each time singularly," "irreplaceably," "infinitely," and "in defiance of arithmetic"—an "incalculable sum" indeed!—the absolute "end of the world" ("Rams" 140). This casts Rilke's reassurance that "our world is sound" in a somewhat different light, since this world is no longer the same as it was before Balthus found the cat, and neither is the "we" whose world is now declared sound. The soundness and solidity of "our" world is something that must be produced, in the face of feline absence, through the work of mourning.

Even though the cat was never fully part of our world, its absence leaves behind "a gap in the world," to borrow a phrase from D. H. Lawrence's "Mountain Lion," which is itself a roughly contemporary rumination on feline absence. Nor is it the only text from this period in which feline absence—both literal and figurative, actual and hypothetical—plays a central role. It seems everywhere you look, cats are not there. This "gap" might be regarded as the space of zoopoetics, particularly since, as we shall see, this palpable absence begins to serve as a sort of master trope for engagements with fundamental questions regarding the relationship between word and world. As such, it mediates between the three key terms that animate the present volume, namely texts, animals, and environments.

2. $Casual^2$

In 1939, Gertrude Stein published a book, ostensibly for children, entitled The World Is Round. It is about a girl named, inevitably, Rose, who has a dog named Love and a cousin named Willie, who has a lion named Billie. Chapter eight, entitled "Rose Thinking," consists of a single sentence: "If the world is round would a lion fall off" (25). This enigmatic and rather whimsical thought raises many questions, but I will limit myself to the following: the absence of a question mark, here as elsewhere in the text, makes it ambiguous how this sentence is to be read, and this ambiguity also begins to trouble the constative force of the book's title, inviting us to ask whether the world really is round, whether this is not to conflate the world with the earth, say. But if the world isn't round, what then? Relatedly, perhaps thinking back to Rilke's take on the issue, we might also question the use of the definite article: is there such a thing as the world? Furthermore, how are we to interpret the abrupt shift from the indicative ("is") to the subjunctive ("would")? And finally, if there is such a thing as *the* world, and if it is in fact round, why would a lion in particular be in danger of falling off?

Let's start with the lion. The title of the first chapter of *The World Is Round* invokes Stein's most famous phrase, "Rose is a rose is a rose is a rose," from the poem "Sacred Emily" (*Geography* 187). Like many poets of her generation, Stein felt that words had become worn out and had lost their immediacy, so that now, as she would later put it, when you read or write a

² A version of this section was previously published under the heading "World," in the volume *Symptoms of the Planetary Condition*.

poem about roses, "you know in your bones that the rose is not *there*" (*Four* vi). The formula was an attempt to reassert the *thingness* of words, and hence to minimize the distance between the word and the world. Oddly, while we are assured at the beginning of *The World Is Round* that "Rose is a rose" and that she "would have been Rose" (1) by any other name as well, her cousin Willie's identity is less secure. Seemingly, this has something to do with his lion, who has "a name as well as a mane and that name is Billie" (27). Not only are the two names so similar as to invite confusion, neither name seems to correspond to its bearer's inmost identity. This prompts Rose to ask herself: "Is a lion not a lion" (21). If a lion is not a lion, would that mean that the lion is not "there"?

By a curious coincidence, around the same time Ludwig Wittgenstein was also worrying about the proposition "Lion is a lion" and what it meant for the place of cats in the world. In the *Tractatus Logico-Philosophicus*—published, as it happens, in 1922, like "Sacred Emily"-Wittgenstein had famously defined the world as "everything that is the case [der Fall]" (31) but in his notes from the year 1944, he was moved to revise this definition, seemingly on account of the lion.³ According to the *Tractatus*, a statement can have sense only if it represents a state of affairs, i.e., something which is "the case." Thus any and all statements about fictional lions-in fables, for instancewould be relegated to the realm of nonsense. The Tractatus demands that in order for something to be "the case," and hence in "the world," it must be possible to determine not only that it exists but that it does so in a definite number of instances. Consequently, the phrase "Lion is a lion" must be taken to be using the word "lion" in two different ways, namely as a name for an individual and as a species designation. But in fables, Wittgenstein writes, we encounter *the* lion, not *a* lion, nor a particular lion named Lion, and thus "it actually is as if the species lion came to be seen as a lion" (*Remarks* 182). This leads to a contradiction, because it is impossible to determine whether "the Lion" refers to the species or an individual—or indeed whether it is the same lion each time—and hence there is no way to ascertain how many lions there are at any given moment. The criterion for existence in the world of the Tractatus was the avoidance of contradictions: it had to be possible to determine whether something is "the case" or not. Now, two decades later, Wittgenstein is no longer satisfied with such a definition. "One can examine an animal to see if it is a cat," he writes, "but at any rate the concept

My reading here is indebted to Hans Blumenberg's discussion of Wittgenstein's "retraction" in *Lions* (56-61).

'cat' cannot be examined in this way" (182). Hence, whereas in 1922 he would have regarded the proposition that "the class of cats is not a cat" as sheer nonsense, now he asks, simply: "How do you know?" (182). How, in other words, would one *verify* such a statement? Even though it "seems like nonsense," Wittgenstein argues that it can be read as a "proper sentence, if only it is taken right," i.e., as a language game involving a different kind of certainty than mathematical certainty.

For Wittgenstein, then, the ultimate aim is to re-evaluate the problem of certainty, and hence it may seem like little more than a happy coincidence that he ends up saving the fabular lion from oblivion in the process. Nevertheless, it does seem as though the threat of feline (or, more precisely, leonine) absence was enough to make this most rigorous of philosophers re-evaluate one of the core premises of his philosophy and change his definition of "the world." From a zoopoetic perspective, this has far-reaching consequences ("if only it is taken right"), and I should like to take it as an argument *for literature* as a means of expanding "the world" beyond whatever happens or appears to be "the case."

3. Exorbitant

At a conference in Berlin some years ago, Jonathan Burt remarked that animal figures in art are frequently endowed with an "exorbitant potential," which is not exhausted by the philosophical and conceptual gestures that accompany them. I find this a particularly apt term for thinking about the way in which animals, and cats in particular, gesture always beyond the text in a way that renders their absence maximally significant.

Probably the most concise articulation of this mode of absence is to be found in Jorge Luis Borges' poem "El otro tigre" ("The Other Tiger," 1959), which I have discussed in more detail elsewhere (Driscoll, "Fearful Symmetries"), so I will merely summarize some key points here. The poem opens with the speaker imagining a tiger prowling through the jungle, leaving "its

Indeed, we must not forget that it was also in the context of certainty and its relation to the language game that just a couple of years later, in 1947, Wittgenstein would make his enigmatic postulation that "if a lion could talk, we could not understand him" (PI 223e). The double subjunctive is key here: the sentence does not refer to a verifiable "state of affairs" at all. If anything, we are being asked not only to imagine a world in which lions can talk, but also to confront the limits of our (human, linguistic) understanding and ability to respond.

footprint on the muddy edge / of a river with a name unknown to it"-for "in its world, there are no names" (Borges 6-8). By the beginning of the second stanza, however, he begins to realize that this tiger is nothing more than "a set of literary images" and "scraps remembered from encyclopedias" (24-26). Far from following its own path "out of reach of all mythologies" (45) the tiger is bound to a path that is always already circumscribed by language. Against this "tiger of symbols" (31) the speaker posits the real, "hot-blooded" (32) tiger-but in so doing, in naming this "real" tiger and attempting to guess "its nature and its circumstance" (37), it too becomes "a fiction, not a living creature" (38). Thus, in the third and final stanza, the poet resolves to continue his search for "the other tiger, the one not in this poem" (49), even though he knows that this "third tiger" (40) will also be a figment of his imagination, an "arrangement of human language" (42). The tiger on the page is always a paper tiger—an *animot*—but the "real" tiger which exists only outside the text is itself also a function of the discourse that enframes it.

The same of course also goes for what is undoubtedly the most famous cat in all of animal studies, namely Derrida's cat from The Animal That Therefore I Am. As the reader will recall, Derrida spends several pages near the beginning of his text insisting that he is talking about "a real cat": "truly, believe me, a little cat," not "the figure of a cat" (6), and certainly not any of a whole litary of famous literary and philosophical cats, from E. T. A. Hoffmann's tomcat Murr (6) to "Montaigne's cat" (6) to "Baudelaire's family of cats" (7), to Rilke's cats (7), and so forth. But of course, as Derrida knows only too well, he doth protest too much. All the insistent deictic specificity he can muster ("she and no other, the one *I am talking about here*") is not enough to isolate *this* cat from all the others, and nor can he change the irrefragable fact that there is no "real cat" in the text. At the same time, he is right to insist that the cat is not *just* a metaphor, or an "ambassador" for "the immense symbolic responsibility with which our culture has always charged the feline race" (9). Yet, this "symbolic responsibility" cannot be so easily shrugged off. The mere fact that Derrida feels the need to go to such great lengths to specify all the cats that he is *not* talking about in order to insist on the "unsubstitutable singularity" (9) of "his" cat is itself an indication of the inherent difficulty of stripping away the intertextual associations and significances attached to the chimerical material-semiotic assemblage that is "Derrida's cat."

This might be a good time to recall that "the exorbitant" is also the term Derrida uses in *Of Grammatology* when discussing the question of deconstructive method, and it is in this context that we find his (in)famous assertion

that "there is nothing outside of the text (there is no outside-text; il n'y a pas de hors-texte)" (158). From this perspective, the "exorbitant" seems to offer a space within the discourse-or rather, it holds out the promise that such a space could and must be produced-from which that discourse might be deconstructed. The exorbitant names a position within the discourse that resists its totalizing order while also avoiding the trap of presuming that there is a transcendental, extra-textual position from which to pass judgement: the exorbitant reading "cannot legitimately transgress the text toward something other than it, toward a referent ... outside the text whose content could take place, could have taken place outside of language" (158). Although Derrida is referring to practices of reading and interpretation here, the same is true for representation and writing, not least for zoopoetic writing: Borges' search for the "other tiger" must end in failure, but it is a productive failure, in that it ceaselessly pursues the outer limit of the representable and expressible. In this way, the "exorbitant" tiger is precisely that which exceeds or occupies a position "a little bit outside" (Rilke 12) the *orbis*, which designates not only a track or path (orbita), but the rotation of the Earth and, by extension, the world as a whole (orbis terrarum). In other words, Borges' tiger, like Willie's lion, is exorbitant and hence always in danger of "falling off." It is poetry that seeks to negotiate a space inside language that could encompass this exorbitant potential in a way that also expands the boundaries of the world.

Animality is constructed as that which is perennially outside language: it is the ultimate hors-texte. Hence we might say that the text is marked by an absence that is shaped like an animal-a cat, for instance. And perhaps we can begin to see Il n'y a pas de chats as a version of Il n'y a pas de hors-texte. The cats and the *hors-texte* occupy an analogous position in each statement, and, indeed, fulfil a similar function, in terms of both representation and interpretation. This is important to keep in mind for scholars working in literary animal studies, since, again, there are no cats in the texts we study. But this needn't be seen as a lack, or as proof that the cat isn't "there," since that in turn would serve to reinforce the entire logocentric tradition that depends on the exclusion of the animal. But nor can we simply conjure up the animal or claim that we are studying or speaking for the animals themselves. Instead, we have to be attentive to the gaps and spaces left behind by the feline absences in the text, which also includes the myriad ways cats and other animals have traditionally been "interpreted out" of texts by literary scholarship. Indeed, as Derrida insists, the task would be to arrive at "a thinking, however fabulous and chimerical it might be, that thinks the absence of the name and of the word otherwise, and as something other than a privation" (*Animal* 48).

4. Effaniniffable

The naming of cats, as is well known, is a difficult matter. In his celebrated poem on the subject–published, as it happens, in 1939, the same year as *The* World Is Round-T. S. Eliot explains that "a cat must have THREE DIFFERENT NAMES" (4): one for everyday family use; one "that's peculiar, and more dignified" (14), such as "Munustrap, Quaxo, or Coricopat" (18), which never belongs to more than one cat; and finally a secret third name, which "you never will guess; / The name that no human research can discover— / But THE CAT HIMSELF KNOWS, and will never confess" (22-24). Whereas the first name is that given to the cat by his or her human companions, it is not yet a *proper* name, since there may be any number of cats by the name of "Peter, Augustus, Alonzo or James." The second name, by contrast, refers only to one particular cat, and as such comes closer to being "proper" to that cat, but, as is the nature of names, this name too will survive the cat and hence pre-ordains the cat's inevitable disappearance. Only the third name can truly be said to belong to the cat, to correspond wholly and without remainder to his innermost essence, his true identity, but this is possible only the condition that it remain unspoken, unknowable, secret.

When you notice a cat in profound meditation,
The reason, I tell you, is always the same:
His mind is engaged in a rapt contemplation
Of the thought, of the thought, of the thought of his name:
His ineffable effable
Effanineffable
Deep and inscrutable singular Name. (25-31)

Evidently, keeping this secret requires significant mental effort on the part of the cat, as if his very existence depended on it. This secret is a source of fascination and—depending on how we choose to interpret the first two syllables of "effanineffable"—frustration for the poet, who finds himself barred from entering this private realm, much in the same way as Rilke is shut out from the feline world. The upshot of this circumstance is that whatever we may choose to call any particular cat, this name will never truly correspond to the cat himself. Moreover, in order to preserve the secret, the cat cannot answer to his *true* name, either, lest he let the cat out of the bag, as it were,

and invalidate this name whose essence "is" its secrecy. As a secret, then, it is "without content," to quote Derrida, "without a content separable from its performative experience, from its performative tracing" ("Passions" 24); in order to remain "proper," this name is subject to indefinite deferral, and, hence, differance. This name is thus precisely not a proper name, which would always already be improper, subject to the differential play of the trace; rather, it is the absence of the name—that is its secret, and this, too, is a species of feline absence.

If there is a zoopoetic force to Eliot's poem—if, that is, we are to regard it as something more than idle, childish, and finally anthropocentric musing on a rather domesticated brand of alterity—it lies in the way the repeated insistence on the "thought" of this inscrutable name gestures towards the sort of "fabulous and chimerical" thinking that Derrida calls for in *The Animal That Therefore I Am*, an animal thinking "that thinks the absence of the name" as "something other than a privation" (48).

How, in this context, might we interpret the nonce word "effanineffable"? Is it just a playful reduplication of the previous line? "Ineffable" may denote either an inability or a prohibition to speak, and derives-like the word "fable," incidentally-from the verb fāri, "to utter." "Effanineffable" appears almost as a synthesis or sublation (Aufhebung) of the terms "effable" and "ineffable," both of which are applied to the cat's third name, which would thus be both utterable and unutterable at the same time. In this sense, its functioning would be analogous to khōra, a "third genus" which names that which cannot be named and disrupts the logic of binary oppositions: it appears at times to be "neither this nor that, at times both this and that," oscillating between "the logic of exclusion and that of participation" but belonging to neither-and/or to both (Derrida, "Khōra" 89). The third name would thus be both/neither utterable n/or unutterable, both/neither absent n/or *present*. Like Rilke's cats, it is both "there" and "not there", remaining always "a little bit outside" [il reste un peu en dehors; or: "there is always a little bit left over"] (Rilke 12).

Although *khōra* appears to function like a proper name, it does not, in fact, refer to a given entity; rather, it appears to denote, among other things, a *space* or a *place*, and more specifically an interstitial space between entities—an abyssal limit—and, moreover, that which "gives place" to those entities and their actions while simultaneously serving as a container or receptacle for them. In order to capture this ambiguity, in his discussion of the term, Derrida refers to *khōra* as a *mi-lieu* (116), a half-place, a place that is half-way—but of course *milieu* also means "environment," which we might now

be in a position to think of as not only the setting for an encounter between animality and textuality but more fundamentally as that which "gives place" to that encounter. It is, if I may be permitted to speak in such terms, the "y" in *il n'y a pas de chats*.

5. Irresponsible

One of the most surprising, indeed alarming, moments in *The Animal That Therefore I Am* comes in the middle of the aforementioned passage in which Derrida enumerates all the various literary and philosophical cats that he is not talking about. Having just assured his listeners that his singular cat is also definitely *not* the cat in *Alice in Wonderland*, Derrida adds that, if they want, they can choose to hear his "emphasis on 'really a little cat' as a quote from chapter 11 of *Through the Looking Glass*," which—much like chapter eight of *The World Is Round*—consists of a single sentence: "it really *was* a kitten after all" (Carroll 205; Derrida, *Animal* 7). Derrida goes on to say that if he had time to do so, he would of course have liked to "inscribe [his] whole talk within a reading of Lewis Carroll." And then, more alarmingly still, he adds: "In fact you can't be certain that I am not doing that, for better or for worse, silently, unconsciously, or without your knowing" (7). What in the world are we to make of this? Is he really talking about his cat or isn't he?

Let us recall that Derrida's approach to the question of the animal revolves around the supposed inability of animals to *respond* in the proper sense of the word. Alice's frustration with her kittens concerns the monotony of their responses to her questions: "How can you talk with a person if they always say the same thing?" (Carroll 206; Derrida, Animal 8). But what is it that Alice wants to know? Having awoken from her dream to discover that the Red Queen "really was a kitten after all," Alice sets about trying to determine first of all who or what, in the real world, corresponds to the strange cast of characters she had encountered in the heterotopia on the other side of the mirror. This proves difficult, and so she demands that the kitten "confess" (206) to having turned into the Red Queen. But since the kitten only purrs, it is impossible for Alice to know for certain, and quickly her allegorical reading of the text begins to unravel, to the point when she isn't sure whether it was she who dreamed it all, or whether they had all been trapped inside the dream of the Red King, whose true identity, moreover, remains a mystery. It is not too difficult to discern in Alice's insistent questioning an

analogue to a certain mode of literary criticism, in which the critic demands to know what the cat "really" stands for. And then, when the cat invariably refuses to spill the beans, this is chalked up to an inability on the animal's part. This, in turn, serves only to reaffirm the assurance that it "really was a kitten after all"—since the defining characteristic of kittens is that they do not respond.

Importantly, as Derrida notes at the beginning of the second part of his lecture, this basic irresponsibility aligns the kitten with writing in general, and literature in particular:

What is terrible (*deinon*) about writing, Socrates says, is the fact that, like painting (*zōgraphia*), the things it engenders, although similar to living things (*ōs zōnta*), do not respond. No matter what question one asks them, writings remain silent, keeping a most majestic silence or else always replying in the same terms, which means not replying. (*Animal* 52; cf. *Dissemination* 136; *Phaed.* 275d)

In other words, kittens are (like) texts: they always say the same thing. Derrida does not dispute this. It is not, after all, "a matter of 'giving speech back' to animals." Rather, it is a matter of recognizing, as Derrida writes elsewhere, that nonresponse is itself a response: "One always has, one always must have, the right not to respond, and this liberty belongs to responsibility itself" ("Passions" 17). For Derrida, it is *literature* as an institution that guarantees, in principle, both "the right to say everything" (28) and simultaneously the right to "absolute nonresponse" (29), to a fundamental "irresponsibility," whereby an author cannot be forced to answer for the things the characters in his works say and do. (To paraphrase Chaucer: "Thise been the cattes wordes, and nat myne.") More strongly, Derrida suggests that there may even be a fundamental "duty of irresponsibility, a refusal to reply" to an authority, and that this is "perhaps the highest form of responsibility" ("Strange" 38).

Perhaps, then, by suggesting that he may in fact, secretly or unconsciously, be talking about *Through the Looking Glass* when it seems as though he is talking about *this particular cat*, Derrida is in fact refusing to accept responsibility for the significance of his own text. After all, you can examine an animal to see if it is a cat—and even whether it is this or that particular cat—but you certainly cannot do the same for the cat in Derrida's text. At the same time, in turning the decision regarding how to "hear" (*entendre*, also: understand) his speech over to his audience, in an elaborate form of epitrope, he is also challenging *us* to respond. The singularity of this cat becomes the singularity of literature. We must confront the possibility that we do not know what it means to "respond"—least of all to a nonhuman who does not speak. If

a cat could speak we would not understand her. It may, above all, be not only necessary but quite literally productive, from both a zoopoetic and an ecopoetic perspective, to affirm the constitutive inadequacy of any response we may be able to offer to the call of the other, which, as Derrida elsewhere reminds us, "is a call to come, and that happens only in multiple voices" ("Psyche" 47), not all of which, we hasten to add, are human.

In her discussion of what she calls "negative ecopoetics," Kate Rigby notes that the recognition of the inadequacy of our response to the call of the more-than-human other "necessitates and affirms a plurality of voices. For if no one can say it all, then we are all called upon to participate in our own way in the 'chorus and polyphony' of responses," which, moreover, "contains more than human voices, for which we ourselves cannot stand in" (438-39). "Only by insisting on the limits of the text," she continues, "its inevitable falling-short as a mode of response no less than as an attempted mediation, can we affirm that there is, in the end, no substitute for our own embodied involvement with the more-than-human natural world in those places where we ourselves stray, tarry, and, if we are lucky, dwell" (440).

6. Subjunctive

The word "world" and its cognates (Welt, wereld, veröld) derives from the Proto-Germanic root wer, meaning "man" (still present in words like "werewolf" and "virile"), and -ald, meaning "age" (still present in "old"). Literally, then, "world" means "age of man"-hence one might say that there is no need for the concept of the Anthropocene, as it is already implicit in "world," both in terms of its anthropocentrism and, more interestingly, in the fact that it denotes a time rather than a place. As has been pointed out, the term "Anthropocene" is nonsensical both etymologically and conceptually: if Holocene means "wholly recent," Anthropocene must mean something like "human-recent"; moreover, as Dana Luciano observes, "the decision to bring this epoch [the Holocene] to an end would mark the present as a peculiar time, after the recent, a time out of time in more than one sense" (n. pag.). The time is not just out of joint; it is running out. The "world" would thus seem to name a series of disjunctures between incompatible conceptions of what is "the case." Despite its anthropocentric denomination, this new "age of man" also marks a heightened awareness of our entanglement and codependence, of the fact that we share a terrestrial time and space with other creatures and forms of life, each of which have their own Umwelten

and hence their own worlds. "World" is thus both singular and plural: there is only one, and there is an infinite variety, each tied to a different mode of being-in-the-world, which is also simultaneously a form of being-with. I would like to suggest that one of the main tasks facing both zoopoetics and ecopoetics is to interrogate the interstices of these two senses of "world"—as something that is simply *there* but that at the same time cannot simply be taken for granted, something that we must actively work to produce, at least if we want to conceive of the world as something we have *in common* with other forms of life on this planet.

Perhaps this may help us to understand the enigmatic shift from the indicative to the subjunctive in Rose's question: "If the world is round, would a lion fall off." In his lectures on *The Fundamental Concepts of Metaphysics*, Heidegger notoriously posited that "the animal is poor in world," in contrast to man, who is "world-forming" (177). For Heidegger, the animal's mode of being-in-the-world is not a being-there (Da-sein), because, he claims, the animal does not have a relation to the world as such. To which Wittgenstein might quite reasonably respond, "How do you know?" And, conversely, as Derrida asks at the end of *The Animal that Therefore I Am*, how do you know that man has a relation to the world "as such" (160)? Is there even such a thing as the world as such? Do humans and nonhumans inhabit the same world, or is there a separate world for cats, for example, that is entirely separate from the world inhabited by humans? In his final seminar, Derrida proposes three seemingly incompatible answers to this question: On the one hand, he says, incontestably, humans and animal do inhabit the same world, the same physical space. On the other hand, and equally incontestably, animals and humans do not inhabit the same world, "for the human world will never be purely and simply identical to the world of animals" (Beast 8). Ultimately, however, neither answer is satisfactory, for, Derrida insists, neither the unity nor disunity of the world or worlds is simply "natural" (8); both are in fact constructs, and any community of worlds, whether between humans or nonhumans or both, must first seek to overcome the gap, the unbridgeable space "between my world and any other world." In fact, Derrida writes, "[t]here is no world, there are only islands" [Il n'y a pas de monde, il n'y a que des îles] (9). And yet, we carry on "as if we were inhabiting the same world" (268). This as if, which brings the world into the world, is an act of poiesis: "[W]hat I must do, with you and carrying you, is make it that there be precisely a world, just a world,... as cats, to make as if there were just a world,... as though there ought to be a world where presently there is none, to make the gift or present of this as if come up poetically" (268). Thus, as Michael

Naas comments, it is "as if there were a performative as if lodged within all our constative assertions and reassuring statements about the world, a comme si at the heart of every claim that the world is comme ça" (58). In other words, the subjunctive precedes the indicative—the lion's hypothetical fall comes before whatever is "the case" [der Fall]—and every "world" is contingent upon the possibility of other worlds, even ones in which a lion would not fall off. Perhaps the prerogative of "world-forming" can thus be reinterpreted as an obligation, a joint venture, which necessarily involves both humans and nonhumans in the shared co-creation of the world. Such an undertaking would thus be both zoo- and eco-poetic. Il n'y a pas de monde is itself a version of Il n'y a pas de hors-texte, and hence of Il n'y a pas de chats. Which is to say, there is nothing that is simply "the case." The subjunctive is all; the world is something we must create. We carry on as if there were a world, just as we proceed as if there were cats. Only then can "our" world be sound.

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Blooming Flowers, Fish in Water, Amphibians, and Apes: Herder's Environmental Aesthetics of Nature

With regard to Johann Gottfried Herder's Treatise on the Origin of Language and his *Ideas towards a Philosophy of the History of Mankind* recent studies have stressed his crucial role in the pre-history of ecological thought emerging in German Romanticism and Idealism around 1800. In his *Ideas* Herder sought to explain the diversification of cultures as part of the history of nature by means of his theory of climate which allowed to correlate the abundance of organic forms to the variety of cultures since both are developing in accordance with particular environments (cf. Axer). Moreover, he also developed a "proto-ecocritical perspective" (Rigby, "Nature" 33) in his previous Treatise on the Origin of Language: As Kate Rigby points out, "Herder traces the origins of language to an act of non-appropriative attentive listening to the animal other, perceived, moreover, as an alter ego, a 'thou'", and, thus, gives a "dialogical account of the origins of language" which "implies a mode of ethical comportment proper to the ongoing process of becoming human that is of profound ecological, biosemiotic and religious significance: it is 'an appeal to let the world breathe and resound, and to dialogue with it" (37). Against that background, I will focus on one of Herder's very latest works, namely on Kalligone, published in 1800, that has been left unattended in this context so far. However, this treatise on aesthetics is of utmost importance to the pre-history of ecological thought since it introduces remarkable aspects of that "proto-ecocritical perspective" into the contemporary discourse of philosophical aesthetics, more precisely, into the discussion on natural beauty as it was brought up anew by Immanuel Kant's Critique of Judgment from 1790.

Herder's *Kalligone* (meaning "The Birth of Beauty") is a three-volume polemic, a kind of response quite harshly criticizing the *Critique of Judgment* in form of a loose dialogue, quoting and commenting on Kant's central arguments in order to reject them, prove them wrong and outline another aesthetic theory in the course of that backtalk. Even though to both, Kant and Herder, natural beauty is of paradigmatic significance to explain what beauty is and how aesthetic judging works, their arguments and outcomes, however, differ radically. Objecting to Kant's transcendental approach, Herder accounts for aesthetic experience both ontologically and theologically,

engaging a neo-Spinozan view of nature. In doing so, he drafts a theory of natural beauty (and ugliness) that may be considered as environmental. He determines the beauty of natural beings in respect to their environment, i.e., the particular "element" (air, water, earth) they live in, and develops an aesthetic semiotics of (perfect) form, of environmental "wellbeing," which not only accounts for the agential properties of matter itself and, thus, for an autopoietic process of becoming form, but also for a kind of empathizing human comprehension of this "natural alphabet" (122) of "living figures" (52): Considering natural beauties as "embodiments of properties and perfections of their particular element" (83), Herder argues that they are "signed with the living concept of their element" (79), and defines natural beauty as "the living expression of a creature's wellbeing, each in its element, if the human being's senses feel that expression harmonious to themselves" (140).

Antecedent: Kant's Flower or What is a Free Beauty?

In his Critique of Judgment Kant precisely distinguished the aesthetic judgment from the cognitive as well as from the judgment on the good and, therefore, objected the prevalent aesthetics of perfection with its claim of a unity of the true, good and beautiful. He famously argued that the beautiful is liked "devoid of all interest" in or desire for the object (53; § 5), that it is judged "without a concept" of the object but nonetheless "liked universally" (64; § 9), and that it is "an object's form of purposiveness" which is, though, being "perceived ... without the presentation of a purpose" (84; § 17). This implies that a judgment of taste is both independent of any sensual charms and emotions as well as of any concept determining the object's purpose and perfection. Kant's contemporarily somewhat provocative thesis is that beauty-in its proper or "pure" sense-has nothing to do with knowledge, least of all with the concept of perfection: Calling something beautiful tells precisely nothing about this thing itself but only about the aesthetic pleasure of the judging subject (which is, though, claimed to be universally shareable with other subjects). However, Kant differentiates "two kinds of beauty," namely, "free beauty (pulchritudo vaga)" and "merely accessory [anhängende] beauty (pulchritudo adhaerens)" (76; § 16).² The judgment on the latter is not purely aesthetical but regulated by notions of perfection since it "presuppose[s] a

Here and in the following, all translations of Herder's Kalligone from theGerman are my own.

² Cf. the German original, Kant, Kritik der Urteilskraft 146-49 (§ 16, B 49-53).

concept of what the object is meant to be ..., as well as the object's perfection in terms of that concept" (76; § 16). For instance, Kant explicates, the judgment on "the beauty of a human being ... or of a building (such as a church, palace, armory or summer-house)" depends on the knowledge of or respect for the object's purpose, hence, sticks to "a concept of its perfection, and so it is merely adherent beauty" (77; § 16). In contrast, a vague or "free beauty" can be judged purely by taste: It "does not presuppose a concept of what the object is meant to be" but is the "self-subsistent beauty of this or that thing" (76; § 16). To begin with, Kant presents "natural beauties"-first of all "flowers"-as exemplary objects of a "pure" judgment of taste: He explains that "hardly anyone apart from the botanist knows what sort of thing a flower is meant to be; and even he, while recognizing it as the reproductive organ of a plant, pays no attention to this natural purpose when he judges the flower by taste" (76; § 16). Indeed, everything about the flower seems as if organized in respect to a purpose; yet despite this directionality to a goal, the end-i.e. the flower's "natural purpose" and the perfection of its organism in terms of that-is not at all taken into account when finding the flower beautiful. Rather, one has precisely to desist from any concept determining "what sort of thing a flower is meant to be" because this "would only restrict" the "free play" of the mental powers understanding and imagination-which is, according to Kant, constitutive of aesthetic pleasure resp. "liking" [Wohlgefallen] in its proper sense—and, hence, would "impair" or even derogate [Kant says "Abbruch tun"3] "the purity" of the aesthetic judgment (77; § 16). To put it short, only an aesthetical view on the flower, that is, a point of view of non-knowledge enables this "free play": Kant argues that "our imagination is playing, as it were, while it contemplates the shape" of the flower, its "mere form" (77; § 16). This, hence, provokes the special pleasure in the beautiful, its concept-less and "disinterested" liking, i.e., the subject's contemplative enjoyment of a pure as if, literally cut loose from any code, free from any determining concept and ruling model of perfection that would otherwise regulate and, hence, "impurify" the judgment. So the flower is such beautiful only because it has no semantics but opens up a free play to productive imagination. Likewise, Kant adds, "(m)any birds and a lot of crustaceans in the sea," and, similarly, also "designs à la grecque, the foliage on borders or on wallpapers, etc., mean nothing on their own: they represent nothing", as well as "music without a topic, indeed all music not set to words [ohne Text]" (76-77; § 16).

³ Cf. Kant, Kritik der Urteilskraft 147, (§ 16, B 50-51).

Herder's Objection: Human Pleasure in the Blooming Flower

In Kalligone Herder accuses this account of aesthetic pleasure and pure beauty to be downright "contrary to the experience of everyone" (105). Rejecting Kant's distinction of "free beauty" and "merely accessory beauty," he denies that there even can be something like a sensation of "free beauty," which is why he regards an aesthetic judgment operating without concepts as basically an untenable illusion, as just "speaking in a dream" (103). He claims that Kant's definitions rather "fail to meet the nature of beauty and lead astray in broad ways" (39) since he set the basis of aesthetic pleasure in a merely "transcendent, super-sensuous substrate of mankind" (30), and turned the realm of beauty into "an illusory world without concept and purpose" where one merely "feels a *quasi-nothing* in everything pleasant" (52). Against this, Herder counters that "what is to be felt must be *something*, i.e., a substantiality [Bestandheit], an essence [Wesen] expressing itself to us; hence something true lies at the ground of everything that is pleasant or unpleasant to us" (52). Therefore, he not only stresses the concrete role of the senses, and, thus, of the body in aesthetic experience but also asserts an ontological significance of pleasure and displeasure. Essentially interlinked with that, he moreover asserts a semiotics of (perfect) form in nature as well as in art and artificial (re-)creation, hence insisting that "without concepts and the notion of a purpose the words beautiful and beauty are never in place" (88). Contradicting Kant, Herder seeks to demonstrate that this circumstance does not only become apparent when considering a building or, the more so, a human being but initially precisely in respect to natural beauties other than human—which, hence, Kalligone's first part deals with primarily.

Herder starts his backtalk with the argument that aesthetic pleasure is not a "cold liking" (36), thus, in no way "disinterested" but rather of most fundamental interest since it is intimately connected with the interest we take in life itself, in our being and well-being, and, moreover, in the existential state and condition of other beings in relation to ourselves. Stating that "the inmost-pleasant is my living felt existence itself," he argues: "the pleasant does not merely gratify; rather, the inmost-pleasant expands, empowers, strengthens my being" (30). Nota bene, Herder derives the meaning of "pleasant" from "angenehm," agreeable, stating that "pleasant is what each or any of our senses gladly agrees to [annimmt], what is acceptable [genehm], i.e., appropriate [angenessen] to it, what it approves [genehmigt] when perceiving" (27). He explicates that every affection by an object implements a process of internalization in which the perceiving subject appropriates what is agreeable

to it, and repels what is adverse: "What, according to how I am organized, is frightening, offending or hostile to the feeling of my being, is unpleasant; in contrast, what preserves, promotes, expands my being, in short, whatever is harmonious with it, that is gladly accepted and appropriated by each of my senses, finding it pleasant" (30). So pleasant is what gives me a feeling of liberation and strength, of not merely being alive but of living freely, strongly and joyfully, that is, as Herder terms it, a feeling of "wellbeing [Wohlsein]" (31). Moreover, he actually grasps "wellbeing" as the goal of life itself, and, hence, as universally pleasant to all living beings: "Wellbeing, welfare, health" are "the foundation of and purpose to the existence of every living being.... We all desire wellbeing, and whatever promotes this wellbeing in any way is pleasant" (31). Based on this, Herder with the term "wellbeing" not only addresses the pleasant feeling of living healthy, strongly and joyfully but, likewise, a being's bodily perfection in adaption to its particular environment or "element" that conditions its maximum potential of being. He argues that the pleasure we take in the beautiful of nature precisely applies to our sensed or felt recognition of a creature's "wellbeing" in terms of its perfect form and motion which emerges in an environmental dynamics. Therefore, this determination of beauty as a felt yet objective perfection cannot be diagnosed as a mere throwback to the aesthetics of perfection rejected by Kant. To Herder the sensation of a "living figure's" beauty offers a recognition of the essence and order of things, and that is, of nature as a harmonic, yet not static but developmental unity of dynamically interacting physical forces in which he recognizes the ultimately divine "One spirit of life" (117)-that also manifests in the "spirit" of each particular "element". As it indicates here, in his theory of natural beauty Herder actually readopts the neo-Spinozan view of nature he had already engaged in some former writings, that is, "an understanding of mind and matter, God and Nature as indivisible, albeit distinct, manifestations of the one universal substance" which, however, "reconceives the divine as an active and mind-like 'primal force' that is manifest in all creation" (Rigby, "Earth's Poesy" 54). Whereas Spinoza "understood God as an active but unchanging 'substance,'" Herder in his renovation stresses the "dynamically agentic properties of matter itself" and, thus, "redefine[s] the divine substance as an active 'force' (*Kraft*), animating and directing from within a 'system' of biophysical or 'organic' forces. These interactive forces materialise the underlying unity of nature and account for its developmental character," which Herder thinks of as an "autopoietic process" (Rigby, "Nature" 35).

Hence, objecting Kant's theory of aesthetic pleasure as a concept-less, nonsemiotic "free play" of mental powers when contemplating the mere shape of an object like the flower, Herder counters: "Not any line, not any shape and contour in nature is an arbitrary [willkürliches] play; on bodies it is ... the real expression of their essence, their being, composed from solidity and from forces, in respect to rest and motion" (48). He states that "the realm of organizations is ruled by the elements": "[T]hese command and give form, i.e., they limit the organizing spirit ruling in a particular element so that every build [Gebilde] has to be considered an embodiment of efficiencies [Wirksamkeiten] and perceptibilities [Fühlbarkeiten] that took place in this element according to place and time" (88). Suggesting that "one can think of the body as received in the wrangle of the elements, after they have singled peacefully and defined in curves," he regards the body as the result of several inner and outer effective forces and counteractions coming from the discomposure of chaos to a harmonically balanced "whole which this body is meant to be" (47). He argues that "the being or substantiality [Bestandheit] of a thing is based on its effective forces in harmony [im Eben- und Gleichmaß], thus, on its limitation. Motion and rest constitute a maximum to it, and for multiple limbs or regards several maxima, exponents of its substance [Bestand]"-and "this configuration to a lasting whole" is "the self-substantiality [Selbstbestandheit], i.e. the wellbeing of a thing" (52). Reasoning, moreover, that "for all living figures there is a maximum of their being, a point of their perfection," he states that "the sensuous perception of this maximum in all means and forces striving to that effect is the feeling of a thing's perfection, its beauty" (52). Hence, Herder first determines natural beauty as "the incarnate expression of a bodily perfection, harmonic both in itself as to our feeling" (51). Based on this, he then drafts a semiotics of environmental "wellbeing," arguing that "every living creature, according to its shape and figure, incorporates a maximum of its significance, and the appreciation of this, rationally or sensually, gives us the concept of its beauty, i.e., of wellbeing in its particular element" (85).

Significantly, the first creature Herder brings on to exemplify his theory of natural beauty is, in fact, a flower too. Yet whereas Kant presented it as the most exemplary object of a pure judgment of taste in order to show that any knowledge of the flower in terms of its conceptual recognition as "the reproductive organ of a plant" sets an end to purely aesthetic pleasure, Herder seeks to demonstrate the opposite, turning the flower into a kind of counterexample against that argument. He finds the flower beautiful because of her blooming, in which he sees "the full appearance of her wellbeing" (77), the "embodiment [Inbegriff]" of her essence. In doing so, Herder's view on the

flower seems, indeed, somewhat botanically or horticulturally informed but, nonetheless, noticeably differs from that of Kant's botanist. In contrast to the latter, Herder empathically embraces the "lovely" flower in her "delicate figure," addressing her in an ode-like tone as a living counterpart, a "you" or *alter ego*, stressing her powers of reproducing in human terms of love and motherliness, thus, outlining a decisively different concept of the flower:

Welcome, dulcet flower! an image of beauty and too soon overblown loveliness to all nations. Unseen, your roots strike in the soil, seeking earthly nourishment; yet thyself, delicate living figure, springing up and gently curved, you breathe the air, suck the light, sprouting leaves and buds. The higher up, the more refined; until finally you show with gathered power what you are, what you are able to do. There is the crown of thy life, thy work, the *blossom*, bridal chamber of love, a site of breeding, custody and nourishment to the young plant. To her, the verdant mother sacrifices all her power; at the peak of these motherly drives she herself shows in full *beauty*, i.e. in virtue of all her powers, behind which she wilts and recedes by and by. Nature, then, preserves her tender birth inconsiderable, indeed, yet firmly enclosed and well-arranged. She has accomplished her function [*Aml*]. (77)

Concluding his exemplary account of aesthetic experience of the flower, Herder stresses his point: "If humans rejoice in the flower, it is because their organs accord with the form and impact of this lovely being.... The bloom of the flower is always beautiful, the full appearance of her wellbeing, of her powers representing her. The beauty of the flower is the maximum of her peculiar being and wellbeing; she is beautiful to us, if our feeling may harmonically appropriate [sich zueignen] that maximum and gladly does" (77-78). One does not need to be a botanist right away to have a concept of the flower-though, for Herder, such scientific knowledge would actually not hinder the pleasant sensation of her beauty at all. However, his presentation of the flower is determined to show that it is rather about another kind of knowledge: Aesthetic experience offers a special access to the world since it renders a kind of translation of the material realm of bodies into something we can grasp and understand in concepts-yet in "sensuous concepts" (cf. 88). To Herder, in aesthetic experience of natural beauty a system or harmonic unity of dynamically interacting forces and powers (of divine provenance) manifests. Initially, this concerns the flower as a "living figure" and, moreover, also an understanding of nature as a harmonic whole in which all creatures, including humans, are embedded and related to each other as well as to their environment in virtue of their bodies and feelings. In the example Herder first stresses the flower's environmental powers of "wellbeing," picturing an agential, actively rooting, sprouting, growing, blooming

and life-giving animated being developing and forming in dynamical relation to her environment-"striking in the soil," "sucking light," and "breathing air." Altogether, he tells a climactic and self-contained miniature-narrative of the flower's complete life or, if one may say so, of her ontogenesis as an earthly organism becoming perfect form in terms of an autopoietic process. According to this, so to speak, holistic concept of the flower, her blooming appears as the culmination of her "wellbeing," thus, the perfection of the goal or purpose of her being, harmonically embedded in the encompassing, ultimately divine context of life itself. Furthermore, Herder argues that through the medium of feeling-understood as the (originally tactile but also in vision and hearing engaged) sense for the recognition of concrete bodies-the human is able to grasp the flower's "living figure" in a kind of empathizing way, enjoying her perfect "wellbeing" by means of that sensuous "accord with the form and impact of this lovely being." Hence, the experience of natural beauty is—to a certain extent—a matter of empathizing with a creature's "wellbeing" in terms of its perfect form and motion. This sensed or felt recognition of its "essence," indeed, implies a proto-biosemiotic dimension: To begin with, Herder argues that "the entire moved nature talks to harmonic beings" through "sound or tone," grasped "as the voice of all moved bodies, out of their inside," reasoning, hence, that "there can be no doubt about our co-recognition [Mitverstehen], our co-feeling [Mitempfindung] with the voice and the gestures of living fellow creatures" (63) since "(e)very co-feeling animal understands these" (64). Later on Herder expands this point by stating that all beings in virtue of their shape and build, figure and motion "talk out of their world, out of their elements" (81). Nonetheless, at the same time Herder also stresses the necessarily anthropocentric perspective of this understanding "listening" and, thus, also of the aesthetic semiotics of "wellbeing," pointing out that "it is always him, the human, talking to them": "In the name of all he holds that dialogue; setting himself, as far as he can, in every nature" (81). Therefore, in "our" aesthetic experience of other living beings and, thus, with our concepts of their beauty it is rather about feeling and recognizing ourselves in the non-human other(s). The better we manage to do so, the more beautiful we find them. In fact, Herder in his exemplary account of the flower makes some rhetoric, if not to say, poetic effort to spell out the human's concept of her, empathically grasping the flower as a "you" in terms of an alter ego, describing the blossom as a "bridal chamber of love," moreover enduing the "verdant mother" with further human passions and businesses. Finally, Herder himself points out the appropriative character of that concept when stating: The flower "is

beautiful to us, if our feeling may harmonically appropriate that maximum and gladly does". Not by chance he already introduced the flower as "an image of beauty and too soon overblown loveliness to all nations". This gets even clearer when he claims directly subsequent to the example: "Even the most common sense understands this language of nature [Natursprache] since it is the thing itself.... All nations on earth know this language and use its images" (78). To demonstrate his point, he continues: "To whom youth compares herself most favorite? In which life she sees her own fortune? What does the girdle of flowers mean to the virgin? The similar graces herself with the likes of her," and, "likewise, the youngling feels himself in the aspiring tree" (78). Moreover, Herder claims that "all primitive people [Naturvölker] mourn their son's death in that image" (78). As Herder already invoked prevalent human codes and images of female ages-from the bride to the mother-in the flower's stages of development, he as well sees all ages of a man-from the young to the "very aged man"-in each of the tree's figures, picturing that "mature man gives shade and inclines his fruit-branches by and by" (78). Therefore, the "significance of living figures" (74) from which Herder derives the concept of each particular natural beauty shows as basically related to and embedded in (and, thus, also regulated and formatted by) cultural codes and discourses, especially the ones of myth, literature, and all arts in general, as well as cultural techniques-which, in turn, are inspired by nature.

This moreover shows when Herder, subsequent to the earthly figures of flower and tree, invites his readers to "descend to the watery realm of Neptune", now investigating the beauty that "inhabits this element" (79). Once more, whereas Kant considered the "crustaceans in the sea" as conceptless, non-semiotic "free beauties," Herder, in contrast, sees them lined with letters overall—which he ultimately identifies as the "true nomenclature of the Creator on his creatures, imprinted to matter through true, selected lineaments, ... the pledge of godly truth" (122): Herder does not only assert that "corals and pearls," and "armored forms" are "signed with the living concept of their regional substantiality [Bestandheit]", i.e., their "element" (79), but, moreover, presents the fish in the water as the best example of perfect form in this element. In doing so, Herder outlines the human's concept of the fish by means of a cultural technique:

All beautiful figures of the sea seem to us freely and happily built ... for living in *their* element. As living vessels, as *swimmers* they appear to us, where ship and skipper are one, floating through the waves.... The fish floats and rocks on its sea-wings, shoots down and drives up, and sweeps and pilots. An unattainable

model of living shipbuilding's craft. Observing ... his delicate structure at the inside, at the outside, on so many species, the glossy, artful flakes and colors: so he seems to us, what he really is, a living representation of the silver sea itself, that not just has reflected [abgespiegelt] but has embodied in him, and, if one may say so, has turned into a feeling of itself. (80)

Considering the fish in the water, Herder explicitly terms natural beauty for the first time as the "embodiment" [Inbegriff] of an animal's natural environment-i.e., here: the sea, whose concept, apparently, can be grasped by humans only through recognition of the fish's perfect shape and motion. In other words: The fish tells "us" the meaning of sea. And, in turn, the sea gains a kind of consciousness or self-feeling as it embodies itself in the fish. Thereby, Herder designs a kind of metonymical relation between animal and environment since the fish is part of the sea and at the same time its signifier. Nevertheless, since Herder primarily captures the fish as "a living vessel," as "ship and skipper (in) one," an "unattainable model of living shipbuilding's craft," it becomes clear that the human being gets his concepts of things in nature not only by means of an empathizing view or attentive "listening" to them but, in doing so, through his appropriative (re-)creation of them. Actually, Herder later on explicates that it is "the essential rule of our (human) nature to create configurations out of everything that we experience and feel, i.e., to think only by means of *creation* [Gestaltung]: What the human being "thinks out of [herausdenkt] the pickings of his senses and impressions [aus der Beute seiner Sinne und Eindrücke are configurations. He always is, good or bad, an artist" (119). In terms of that, Herder's aesthetics of nature may be considered as both a semiotics and a poetics of environmental "wellbeing," of perfect form.

As an artist—that he is due to his own "nature" or rather essential determination as "nature's most gifted work of art [Kunstprodukt]" (127)— a human being imitates nature artistically and technically. According to Herder, "beauty in art [Kunstschönheit] is a humanly modeled imprint of beauty in nature [Naturschönheit]" (140)—though not in a merely copying sense. Rather, this mimesis is an appliance of the "omnipotent rule of natural beauty [des Naturschönen] as a maximum limiting itself in between two extremes" (72), thus, of the dynamics of interacting forces which the human being acquires in the "teaching school [Lehrschule]" (54) of nature's beautiful figures. And through "Gestaltung," through (re)-creation, Herder states, "the human being creates himself, i.e., he recognizes and uses that rule" (118). Thus, the human being is determined by nature to be both his own creator and creature at once: "(O)nly through art he became what he is," and "as a human, art is natural

to him" (140). However, the human can realize his determination as that being who creates himself through culture only in interrelation, exchange and intercommunion with nature: "He lives in nature, built harmonic to her, and has to live with her. Hence, the history of his culture in appreciation and exercise of the beautiful is both natural and artificial [Natur- und Kunstmäßig (sic)]" (140). As the human being in his arts and actions uses nature to his own purposes in the ongoing process of becoming human, Herder finally calls him on to do this right, and that means tastefully: Whereas "nobody can deny that nature gets depredated and mangled through tastelessness of humans," they are rather assigned "to improve and embellish nature in virtue of reason and assiduity, i.e., to bring her to a harmony and perfection that she, left to herself, never would reach" (314). Thus, as Herder's aesthetics of nature basically implies a dimension of educating taste in order to educate and cultivate the human individual as well as mankind to become what it "truly" is, this aesthetics, at the same time, also implies a bio-governmental cast.

Herder actually considers the human being as determined by "Mother Nature" to be "the ruler of the world" (128). As the prideful "last-born of the Creation" (128), the human being is also granted an aesthetically prior, indeed, a paradigmatic or ideal position. Herder regards the human as the telos of all natural figures, hence at the top of the chain of beings. However, Herder drafts an aesthetically oriented, environmentally informed, developmental, and rather organological interpretation of the scala naturae. Arguing that all creatures cohabit "one common world" which is "ruled by One spirit of life" and "disposed" for both the "enjoyment of life in a particular element" and "for common wellbeing," he assumes an "universal analogy," "one common type [Gesamt-Typus]" (117) continuously connecting all living beings which, again, have to be understood as elementally conditioned variations of that type. Herder claims that this "common type" "ascended according to elements and regions": from "the swimming creature" with its "horizontal figure," to the "bird, flying in its element, gaining a freer build", finally coming up to the "erected figure" of the human (117). In a certain sense, the human being comprises that "universal analogy" of natural builds in his own figure, giving him a repertoire of forms to compare and find again in his fellow creatures. In fact, Herder claims the human being to be "the evaluator of the world, judge of its shapeliness and beauty" (88). Moreover, he treats the human being's own figure precisely as the "measurement and model of organic beauty" to judge all elementally varying natural beauties, claiming that "in the human all of his forms are significant" (90). Therefore,

Herder orients his aesthetics of nature "only according to *human* concepts and feelings": "We do not talk about feeling beings of another kind, and it is a double foolishness to dream oneself into such unknown worlds" (116). Hence, finding something beautiful means, basically, that this thing is completely "clear and comprehensible to *us*," i.e., to humans (77). This fundamentally anthropocentric character of Herder's aesthetical semiotics of elemental "wellbeing" is of particular relevance when he deals with ugliness in nature.

Ugliness: Amphibians, Apes—and Kant

Whereas Herder judged blooming flower and fish in the water as beautiful because humans can enjoy and grasp these figures as harmonious perfect wholes, each being "signed with the living concept" of their sheer elements, he argues that ugly animals occur at the "changeovers [Übergänge] of two realms of nature" (79). While he admits that these animals are, too, "built for their elements like with a compass at hand" (whereby he implicitly invokes the phenomenon of magnetism, thus, stressing again the agential properties of matter itself as well as the human recognition of that in physical sciences), he asserts that they nonetheless "appear obnoxious to us": "ugly and strange at first sight" (79). When having "a closer look at them and accustoming to their looks," one could, indeed, notice that they are likewise "most gently and harmonically accorded to the twofold element" (79). Yet he asserts that they are, nevertheless, ambivalent and "disharmonious to our feeling" since "our eye can hardly reconcile with their figure" (80). That is because the eye, according to Herder, "sees in every unit the unity, a whole," and "constituting a unity is the very business of the visual sense" in such a way that "a world of indestructibly-lightish harmony and order appears in front of us [vor uns tritt]" (58). While "the human sets himself, as far as he can, in every nature", in regard to the elemental changeovers, he apparently cannot, thus, seems handicapped here: Herder explains that these animals do not appear to "us" as perfectly comprehensible representations of their "wellbeing" for they seem rather dubious "Doppelartige" from a human perspective-adverse mixtures, in which, for instance, "earth and sea are mixed up" (79). Therefore, Herder explicates, they arouse distaste. To demonstrate this, he brings on "the figure of the amphibian" as the best example of these ugly "Doppelartige," counting on his reader's agreement. In this figure, Herder insists, "builds [Gebilde] of two elements, the land- and the sea-animal, quasi adverse, intertwine. Head and chest a creature of the earth yet dragging limbs of the sea" (80). Unlike the preceding examples, Herder does not try to evoke his reader's empathy here, i.e., our "co-recognition" and "co-feeling" with the amphibian by a narration as in case of the flower. Instead, he implicitly invokes a well-known topos of an ugly image as ancient poetics has it, namely, the mixed up mermaidly figure by means of which Horace in his *Ars Poetica* normatively illustrated a mimetically improper and, thus, ridiculously null creation:

What if a Painter, in his art to shine, A human head and horse's neck should join; From various creatures put the limbs together, Cover'd with plumes, from ev'ry bird a feather; And in a filthy tail the figure drop, A fish at bottom, a fair maid at top: Viewing a picture of this strange condition, Would you not laugh at such an exhibition? (1)

So the Herderian-human view on nature is not "free" but, rather, a priori formatted and normed by a certain passed down poetics and in the end somewhat conservative rules and notions of wholeness, unity and perfection preferred to or regarded as higher than other aesthetic forms and structures. In turn, Herder thereby also naturalizes normative rules of poetics as well as prevalent cultural codes and semiotics (as already seen in the bridal flower and the manly tree).

Concluding his statements on ugliness in nature, however, Herder realizes a further error of the human aesthetic judgment. Asserting that especially those animals who "are most similar to us" are ultimately "the ugliest," he explicates that this "very resemblance is beguiling; it corrupts, or, as we have already noticed in regard to other border-neighbors [Grenznachbarn], fools our judgment," although "it should not": "As cohabitants of one earth we may put us in the place of every of our relatives"; but, nonetheless, "our judgment on the animals of the earth becomes the more biased, the closer they live" (84). To demonstrate this, he brings on "the ape and the sloth" as "the very ugliest animals," explaining that "they do not appear to us as what they are, but rather as a brute, distorted shape of man. We hate and regret the big sad ape, that seria bestia of our new cynical philosophers; and nobody looks without shame and disgust at the libidinous, lush [iippigen] ape" (84). In doing so, however, Herder cannot forgo a further polemic remark directed at Kant. In fact, he makes an ape out of his former teacher here, moreover

presenting Kant's sensation of "free beauty" as a silly ape's game-while, at the same time, stating that aping is a bad, deficient and ugly form of mimesis in comparison to that of the human: "Silently, one speaks to oneself: how similar is the ape to some of mankind! Does not even the rudiment of that what makes the human a creature of art, the imitative instinct, lie in front of us in the ape? This aping play, without concept and purpose but purposive to all appearances, where does it become clearer to us than in the apes?" (84). Finally, it seems kind of ironic that Herder uses, of all things, the ape to revile Kant-for at the same time the ape functions here precisely as a figure of reflection by means of which Herder points out the "corruption" and deception caused by that "beguiling resemblance" to the human himself and, moreover, also by "additional notions [Nebenideen]," thus, by certain concepts that tend to "black-out" the aesthetic judgment (89). Yet-properly understood-that was all what Kant meant when speaking about "adherent beauty" with regard to which aesthetic judging is not "free" but regulated because it is sticking to or depending on concepts and codes of perfection which are essentially normative. Hence, when considering ugliness, Herder's aesthetics of nature in the end inadvertently converges to the statements of his archenemy Kant on "adherent beauty."

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"The jellyfish must have precedence!": The Diaphanous Animal as an Optical Medium

Daniel Strozynski, jellyfish specialist at the Berlin Zoo explains: "A fish can look at you, after all. But a jellyfish? It's simply a jellyfish and that's it. Jellyfish do not make any noise, do not show any feelings, cannot even look at you" (qtd. in Goebel 35). His former career plan was rather aimed at working with elephants than cnidarians. From a human perspective, eyecontact seems to be indispensable to establish any kind of human-animal relationship. Even if jellyfish themselves do not have "eyes"—or at least not visible to the observer—they often emerge in the arts and sciences as objects of human sight: Jellyfish can enable seeing without eyes, and do so in fluorescence microscopy, in which the green fluorescent protein (GFP) is obtained from a jellyfish and is able to make cell components visible in the human body (Flach 283). And in a poem by the German poet Jan Wagner the diaphanous animal is addressed as being endowed with visual capabilities: the jellyfish feature as a "voracious eye" and a "magnifying glass that enlarges the Atlantic" (95).

On the one hand, this article follows the tentacular traces of jellyfish in a wide variety of contexts. The individual segments of the article are autonomous and at the same time related, comparable to the countless interdependent but distinct polyps that make up siphonophores. On the other hand, this article follows a maxim which was already formulated in the novel *The Rat* by Günter Grass in 1986: "The jellyfish must have precedence!" (125). Tasked with surveying the "jellyfish density" (13) in the Baltic Sea, five researchers observe singing moon jellyfish. As a literary animal, the jellyfish is attributed audiovisual properties transcending "real" jellyfish characteristics. This animal soundscape makes the researchers begin to recognize jellyfish as an ecological indicator. Jellyfish, as my article tries to show, appear as the epitome of ecopoetics: As a media figure of thought and movement, the jellyfish is used as an ocular to direct the gaze

 $^2\,\,$ "[G]efräßiges auge" and "lupe, die den atlantik vergrößert."

^{1 &}quot;Ein Fisch kann dich angucken, immerhin. Aber eine Qualle? Die ist halt eine Qualle und fertig. Quallen machen keine Geräusche, zeigen keine Gefühle, können dich nicht mal ansehen." All following translations from the German are my own.

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via and through the animal to the human, its body and to its environment. Therefore, the article sketches diverse stages of the history of knowledge of jellyfish and follows the epistemological and aesthetic figurations in which jellyfish appear as an ecocritical figure.

The Birth of Jellyfish Research

The exceptional traits of the jellyfish have already surprised early nineteenthcentury naturalists. In his contributions to the anatomy and physiology of the medusas dating back to the year 1816, the German naturalist Heinrich Moritz Gaede wrote about a strange view regarding the benefit of these animals: They clean and purify the sea "because all the impurities find their way to them, stick to them, like burrs on a cloth" (11). Gaede ascribes a cleansing function to the cnidarians insofar as they function as an oceanic vacuum cleaner, ingesting dirt, trash and filth. Gaede's allusion identifies the jellyfish as a bioindicator, as an organism by means of which conclusions can be drawn about environmental impacts of humans. The jellyfish becomes readable as an indexical figure since they appear to refer to their environment by going beyond themselves and their body. Thus, an increasing jellyfish population or also the individual pollutant-loaded organism can be read as an indicator of increasing pollution of the seas. Gaede's reference shows that jellyfish are considered as ecological indicators since the birth of jellyfish research.

Jan Altmann dates the birth of jellyfish research (175) to an expedition undertaken to the *Terres Australes* (1800-1804) under the command of Nicolas Baudin, accompanied by expedition artist Charles-Alexandre Lesueur. Altmann emphasizes that during the Baudin expedition, the jellyfish family was generally established as a zoological entity (5). The cnidarian points beyond itself here as well and acts as somewhat of an *interface* which strikes a balance between dichotomous moments. Positioned as a hybrid organism between plant and animal and dismissed as being an "unknown mollusk" ("unbekanntes Weichtier"; Altmann 178), the jellyfish as an object of investigation led to a reflection and revision of usual observation and research practices: With the participation of an expedition artist, the visualization of the observed was no longer simply examined scientifically, it also took on an artistic—more specifically pictorial—examination. Since the preserva-

 $^{^3}$ "[W]eil sich alle Unsauberkeit an sie setzet, die an ihnen hängt, wie eine Klette auf Tuch."

tion of the ephemeral mollusks, which were also designated as "organized water ("organisiertes Wasser"; Altmann 200), was not successful, the drawings were based on immediate observation, on living models and not on preserved specimen. Thus, these portrayed jellyfish were shown as moving animals—in other words—as living animals. It is possible that the "moving pictures" also contributed to the irrevocable classification of these gelatinous living beings as animals, and no longer as plants. Beyond pure "nature management"—meaning a classification of that which can be seen—motion studies became a focus of interest as well.

Polyps

In an article on jellyfish, the examination of the polyp, a developmental stage of the jellyfish, should not be missed. Linked to this is the maxim of Jacques Derrida which does not have a homogeneous whole behind "the animal." Just like jellyfish, the polyp-also a generational stage of many medusas-is ascribed a bioindicator function as well, since it allows for conclusions about water quality. Since the polyp was also used to do research on the division and regeneration of organisms, Bühler and Rieger declared it a super-animal (9)—meaning a figure of knowledge—and thus an integral part of their "Bestiary of Knowledge": "The animal with one head and many limbs, which are described as arms or tentacles, is put under the knife and thus exposed to a whole series of experiments" (188). According to Rieger, it is especially the morphology of the animal that abets variable cutting sequences ("Polyp" 196). The cut was then followed by monstrosities (193). Rieger's mental association somewhat leads from the polyp as super-animal to the polyp as a demonic animal. In A Thousand Plateaus. Capitalism and Schizophrenia, Deleuze and Guattari distinguish between "three kinds of animals": the "individuated animals, family pets, sentimental, Oedipal animals each with its own petty history," the "animals with characteristics or attributes; genus, classification, or state animals" (240) and "more demonic animals, pack or affect animals that form a multiplicity, a becoming, a population, a tale" (241). Furthermore, a reference to the polyp in A Thousand Plateaus puts human and animal anatomy in relation to each other:

⁴ "Das Tier mit dem einen Kopf und den vielen Gliedern, die als Arme oder Tentakel beschrieben werden, gerät unters Messer und wird so ganzen Serien von Experimenten ausgesetzt."

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A single abstract Animal for all the assemblages that effectuate it. A unique plane of consistency or composition for the cephalo-pod and the vertebrate; for the vertebrate to become an Octopus or Cuttlefish, all it would have to do is fold itself in two fast enough to fuse the elements of the halves of its back together, then bring its pelvis up to the nape of its neck and gather its limbs together into one of its extremities, like "a clown who throws his head and shoulders back and walks on his head and hands." (255)

Even if one is only referring here to bisection, the acrobatic exercise is attached to the "combinatorics of experimental subroutines", i.e., experimenting on polyps, to graft them, stick them onto each other, to admit them to strange combinatorics (Rieger, "Polyp" 196).

The more or less monstrous cut and the demonic animal, which could also include the vampire, according to Deleuze and Guattari (241-42), takes the polyp into the proximity of early expressionist film and not just associatively. Hence, it is not surprising that in Friedrich Wilhelm Murnau's 1922 version of Nosferatu, Professor Bulwer holds "a course on the secrets of nature and their strange correspondences to human life" using a polyp—and a carnivorous plant-as an example, while Nosferatu sets out for Wisborgand with him a kind of plague that appears to be a riddle to scientists. The film features the following line about polyps: "And now, gentlemen, here is another type of vampire: a polyp with claws ... transparent, without substance, almost a phantom." Professor Bulwer does not draw an analogy between vampires and polyps; form and color of Nosferatu's claws resemble that of the claw-like polyp which Bulwer and his pupils study. At any rate, no technical apparatus is revealed to the film's audience. In Nosferatu, the movie camera simultaneously acts as a microscope. The camera perspective switches from the classroom and surroundings of the professor and his pupils to a microscopic close-up of the polyp. Since the spectators as well as the corresponding apparatus are removed from the field of vision, the audience operates as a spectator. The first item to penetrate the animal's organism is therefore not the scalpel performing the dissection of the polyp but the sight-giving lens. Thus, the polyp appears to merge with the sightgiving apparatus and the human observers. According to Karen Barad this means that the outside boundary of the apparatus does not coincide with the visual terminus of the instrumentation (142-43). It is much more necessary to understand human, animal and apparatus as not being individual entities but rather a figuration.

⁵ "Kombinatorik experimenteller Subroutinen."

Jellyfish and Dance

The beginning of Paul Valéry's essay "The Dance": "Why not ... turn to the art of the dance for a while ... an art based on all those human movements" (13) is not, first and foremost, formed by the question regarding animal locomotion (Rieger, "Tiere" 32)-a question that, according to Rieger, had a decisive influence on the relationship between animals and humans; it is more the question regarding human locomotion, or, to be more precise: dance. Valéry pits the goal-oriented, economic movements of everyday life against the movement of dance: energetic, led by repetition. Their divergence can be shown in the level of importance of both forms of movements ascribed to the absence of movement or stasis: That which is quite natural to everyday movement is most deeply unnatural in dance ("Dance" 16). Valéry is prompted to immediately draw analogies between a body in stasis and the animal: "An animal, weary of being confined to immobility, dashes off snorting; ... it *lets itself go* in gallopings and wild courses" (15). To him, the animalistic exhaustion is a pre-cultural act, a moment "before the dance."

"Jellyfish on the big screen" (Cahiers 256)—a short note in Valéry's Cahiers—provides information about the more or less predictable turn in the text that brings the reflections regarding dance theory to an end. Even though Valéry reflects on Eadweard Muybridge's chronophotography only a few pages later in "Horse, Dancer, Photograph," it is the floating jellyfish that is the basic idea responsible for the new paragraph in his essay, not the galloping horse: Human, animal, and medium establish themselves in one figure of thought. The moving image of the quasi liquid lifeform within the liquid (Cahiers 257) is used by Valéry as a medium for scenic research and establishes the interface between human and animal locomotion. The jellyfish appear to him as

beings of an incomparably translucent and sentient substance, flesh of furiously sensitive glass, domes of floating silk, hyaline wreaths, long thongs traversed by rapid unfolding; while they whirl, unshape themselves and shoot away, as fluidly as the tremendous fluid which harries, embraces and sustains them on all sides, yielding to their slightest inflections and restoring them their forms. There, in the irreducible volume of water that seems to offer no resistance, these creatures can enjoy the ideal mobility, expanding and contracting their radiating symmetry. No base, nothing solid to support these supremest of dancers; no boards, only

 $^{^{6}}$ "Quallen auf der Filmleinwand."

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an element in which they press on all the yielding area allowing them passage where they will. Nothing solid, either, in the crystalline elasticity of their bodies; no bones, sinews, no inflexible ligatures or segments that can be distinguished.... ("Dance" 17-18)

Valéry understands the anatomy of the mollusk in textile associations which he couples directly with the fluid environment of the diaphanous being. Thus, animal and environment form a choreographic figuration which is led by reciprocal impulses. The gelatinous form of the jellyfish which only slightly differs from its environment, makes the mollusk virtually appear as an ecological figure *par excellence*, making it impossible to behold the animal detached from its environment. Just as Valéry's contemporary, the zoologist Jakob von Uexküll, observed: Environment and the inner life of animals necessarily depend on and influence each other (5).

"Organ coquetries" ("Organkoketterien"; Cahiers 256) subsequently entice Valéry to abandon the asexual creature and make sexual analogies. To him, the diaphanous being becomes a desirable dancer. Inspired by the medium of film and with the eye of a voyeur, Valéry zooms in on the female genitalia which the jellyfish seems to embody and displays so "furiously open" ("Dance" 18):

No women dancer, inflamed, exalted by the rhythm, the toxic force of her own overwrought energy, and by her consciousness of the ardent charge of desire in the eyes of her audience, ever expressed the imperious oblation of sex, or mimed the challenging urge to prostitution, like the great medusa, transforming herself into an erotic phantasm, with an undulating shudder passing through the scalloped flounces of all her skirts, which she lifts and lowers with a strange and shameless insistence; and then, suddenly flinging back all her shivering finery, her robes of servered lips, inverts and exposes herself, laid furiously open. ("Dance" 18)

This "genital illusion" allows the gaze to wander—from human locomotion to animal locomotion and back to human locomotion.

Jellyfish Are Twelve-Toners

There is also something illusory to the singing jellyfish in Günter Grass' dystopian novel *The Rat*: As the five researchers leave the harbor of Visby in Gotland, Sweden, after a hasty shore leave, they happen upon "a large field of jellyfish that cut down their speed" (187). They "seem to hear a rising and falling sound over the waters, a wordless singing ... as though millions of medusae ... had suddenly found their voice in the shallows or been mi-

raculously set to singing by a higher will" (187). Aurelia Aurita seems to be predestined to lend her voice here. As an animal which travels in schools, it easily lends itself to analogies to choirs and polyphony. It belongs to the class of Scyphozoa, and so its body is bell-shaped. Aurelia Aurita received its common German name "Ear Jellyfish" due to its ear-like genitalia which are located above its diaphanous umbrella. The name includes the auditory aspect as well, enabling it to sound its voice in connection to the sirens that are found in Greek mythology.

Even though the terms "inexplicable phenomenon," "cosmic influences" (189), and a "woven fabric of voices hovers over the sea" (190) are mentioned several times, and auditory illusions could be diagnosed, it is actually a tape recorder that provides the proof here. "[N]ot only Bach cantatas and organ preludes, but also Joan Baez [and] Bob Dylan" (190) are simply just recorded over and instead the "singsong" (188) of the jellyfish is recorded on tape. It is possible to play the tape again and again—the "song of the medusae" (188) has been recorded. The only thing that seems to vary between the medially reproduced jellyfish song and the "original sound" (188) is the pitch. Whether Gesualdo (189), Bach (190), twelve-tone music (189), or "electronic sounds" (191)—familiar sounds of older and newer music are ascribed to the *poiesis* of animal voices. The researchers are "hearing what they want to hear" (191), as the narrator comments. The jellyfish song serves as an auditory projection screen.

The suspicion of an auditory illusion also persists as the five researchers meet a border patrol of the German Democratic Republic. Even though the jellyfish are still singing, the border officers tell them that they "hear no singing" (190). Since the researchers refrain from presenting them with a demonstration of the tape recording, the female crew remains the only witness to the medusae's song. Thus, the animal voices are not only able to exist as an "Electronic Voice Phenomenon"—as voices recorded on tape by Friedrich Jürgenson who had originally set out to record bird voices in 1959 (Smarzoch 194), they are also able to elude state wiretapping methods. It could even be suggested that auditory events in the pre-media age supply "appearances of specters" (Kittler 12).

Taking a step back: Even when they are left on their shore, the female crew spontaneously decides to join a passing demonstration against animal testing and yells loudly: "Jellyfish counting is ridiculous. It should be stopped" (Grass 186). In a way, the slogan verbalizes the dilemma of their very research mission: "Of course the cause of the infestation is not to be investigated, but only its quantitative fluctuation" (13). The female crew

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has been given the task to collect mere data; searching for causes was not part of the agenda. As if the order had been codified, the researchers almost seem to find the thought of going beyond the recording and storing of the jellyfish song odd: To decode it as both an ecological indicator as well as a signpost to the long awaited "Utopia Atlantis Vineta" (97), or as a siren-like warning from the alleged utopia does not make sense to them. The singing jellyfish in *The Rat* urge for more than mere data collection—for the tracking to be taken seriously as well as of the research in bioacoustics as a method of gaining new knowledge in times of climate change (172).

Siphonophorous Matrix

The special scientific interest in siphonophores stems from their composition, which consists of a multitude of polyps featuring special morphological and functional characteristics. Each animal is an individual yet their level of integration is so strong that the colony takes on the character of one large organism. In fact, most of the zooids are specialized to a degree that would make it impossible for them to survive on their own. Siphonophorae tread the fine line between colonial and complex multicellular organisms. (Gomes and Thermann 110)

Mário Gomes and Jochen Thermann, the authors of *Mountains, Jellyfish*, use a reference to an essay film on siphonophores (80), the paragraph given above from a fictitious scientific essay called "Book of Jellyfish" ("Quallenbuch"; 110) and a dubious Polish artist whose nature can be associated with that which is gelatinous (224) in order to introduce the siphonophores in their debut novel entitled *Berge, Quallen* ("Mountains, Jellyfish"). The diversity and pace of the central story lines—ranging from twilight economy and hired assassination to rape and human vivisection—make the jellyfish fade into the background of the story, a little hasty as it seems. The journalist Ronald Düker therefore jumps to conclusions when he maintains that the tarantinoesque novel was given a rather stupid title (56). Strictly speaking, the cnidarian is not just the animal motif in *Mountains, Jellyfish*—the siphonophore provides the matrix for the novel's action. Clues for this are sometimes given by the motivic borrowings themselves:

"Portuguese Man-of-war," a film by the novel character Viola Medlar, which seemed to be like "a subtle provocation featuring the elegance of the diaphanous" (Gomes and Thermann 80) acts like a siphonophore—

⁷ "[E]ine subtile Provokation, mit der Eleganz des Diaphanen."

a conglomerate of a variety of organisms which form an interconnected entity (81). Another scene in the novel states that not only are all strings pulled by Kottwitz, the Polish artist, but that he himself was nothing "but a jellyfish, aiming at ingesting the human body and the corporate bodies of society, at dissecting and cutting them apart" (224). In both cases, the siphonophore serves as a figure of self-reference. Subsequently, the animal reveals the novel's narrative process: like the figure of mise en abyme, the microstructural reflections reference the novel's macro-structure. Mountains, Fellyfish as a siphonophorous matrix: The overlapping story lines, discontinuities and doubling of figures effectively behave analogously to the specialized polyps of a siphonophore which are not able to survive on their own any longer and therefore need this union (164). Another instance that reveals the nature of the novel's siphonophorous matrix is the synthesizer concert: Blaszczykowski and Schmittkopf, two of the three names used repeatedly in the novel, attend an appearance of the composer "Jochen Gomes" (88), a humorous reference to the duo of authors: "There was Gomes, working on a wall of cables, controllers and levers, running back and forth between four towers which he cabled bit by bit" (89). The four synthesizer towers are covered in the neon-painted names of the following areas which also act as titles for the novel's chapters: Marderheide, Mexico, Poland, Italy. The siphonophore and synthesizer-animal and technology-thus serve as the matrix for the novel's structure.

A further indication of the organic text is provided by the book "Goldmann's *The Worlds Within*," which appears in all of the story lines and, along with the so-called "Quallenbuch" is among Schmittkopf's nighttime reading. The fictitious title not only confirms the *mise en abyme*, the world within worlds, it also evokes memories of Alan Weisman's *The World Without Us*. Here, Weisman states the hypothesis that the flora will reconquer our cities in a post-human era. It might not be a plant but the siphonophore occupy the novel in a similar manner. In the case of *Mountains*, *Jellyfish*, to "think" the animal—with a reference to Lévi-Strauss—means to comprehend the text as an organism which is guided by the animal and eludes narrative conventions.

^{8 &}quot;[E]ine Qualle, die danach strebte, den menschlichen Körper und die Körperschaften der Gesellschaft aufzusaugen, zu zergliedern und auszuscheiden."

^{9 &}quot;Man sah Gomes, wie er an einer Wand aus Kabeln, Reglern und Hebeln hantierte und zwischen vier Türmen hin und herlief, die er nach und nach miteinander verkabelte."

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To conclude with the composer Felix Kubin, we can claim: "We are all jellyfish." More specifically, we use the literary animal as a magnifying glass to view ourselves and our environment from an ecological point of view. Because of its similarity with an eye, the jellyfish is particularly good for it. Thus, the jellyfish appears as a literary animal and as an ecocritical figure *par excellence*: it is continuous with its environment and therefore cannot be considered detached from it.

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Ants and Battlefields, Beetles and Landscapes: Rudiments for a Naturalistic Reading of Ernst Jünger's Interwar Essays through the Lens of His Later Entomological Hermeneutics

Old Testament and New Testament: How to Read Ernst Jünger

It is a widely held belief amongst Ernst Jünger (1895-1998) scholars that his oeuvre can be separated into two distinct phases. Jünger, who is best known for his war memoir Storms of Steel (1920) and the allegorical novella On the Marble Cliffs (1939), fueled this belief when he wrote: "Zum Opus: meine Bücher über den ersten Weltkrieg, der Arbeiter, die Totale Mobilmachung und zum Teil auch noch der Aufsatz über den Schmerz-das ist mein altes Testament." (Jünger, Strahlungen 166). This statement has been mostly read as an example of Jünger's self- fashioning, the grandeur of an author with an exaggerated opinion of his own importance, as well as an attempt to deemphasize his own nationalistic entanglement with the rise of German fascism. However, despite these critical interpretations, the classification itself is generally taken at face value. Thus the two phases of Jünger's oeuvre have been described as follows: Beginning in 1920 with the self-published first edition of his war memoir Storms of Steel and ending in 1934 with the essay "On Pain," Jünger's early writings are considered to be "dangerous and moreover esoteric" (Bohrer 13). Yet most of his readers deem these texts his main contribution to literary modernity, ranging from surrealistic vignettes to expressionistic experiments to exemplary descriptions in the style of New Objectivity. In terms of content, Jünger's early texts are mainly concerned with the impact modern technology and World War I have had and will have on modern life.

Following this classification, Jünger's late work would consist of everything he wrote between 1935 and his death in 1998, spanning sixty-eight years. Considering the fact that this second phase is significantly longer—though sometimes further divided into a period beginning with the National Socialistic rule and ending with the entire post-war era—it is astounding

[&]quot;Concerning the opus: my books on World War I, *The Worker*, "The Total Mobilization" and partly my essay 'On Pain'—this is my Old Testament." If not indicated otherwise, the translations in this chapter are my own.

that this vast body of political, philosophical, and ethical essays; his literary diaries; as well as his fantasy, crime, and science-fiction novels, has gained so little attention in contrast to the first fourteen years of his early literary career. One possible explanation for the lack of interest in Jünger's post-war writings could be that his literary style grew "ever more old-fashioned, ever more occupied with itself" (6) and thus did not appeal to contemporary readers after 1945, as Matthias Schöning and Ingo Stöckmann suggest. However, another explanation for the strong division of early and late work can be found when looking at the content of these writings. While in his early career, Jünger mainly examined the relationship of pre- and inter-war modernity, as well as the rise of technology as an autonomous force, his later writings became increasingly occupied with a seemingly heterogeneous subject: nature.

This rough periodization, and to some extent even the stylistic assertions usually colligated with it, does hold some merit when it comes to providing a historical, political, or literary background. Still, when connected to, or even derived from, poetological self-statements such as the one above, it becomes obvious that periodization has its limits when engaging with Jünger's epistemological deliberations on a theoretical level. This is mainly because such a periodization tends to omit one crucial trait of his literary strategy: the immense importance of context. Taking a closer look at the journal entry Jünger's proposition stems from, it will become clear that rather than providing evidence for a strong division of distinct phases in his oeuvre, the original context actually points toward an argument for a consistent, yet evolving, line of thought as well as a unified methodic approach to the description and analysis of pre-, inter-, and post-war reality.

September 16, 1942: Contextualization and the Descriptive-Reflexive Method

Jünger's method, which can be ascertained throughout the entirety of his oeuvre, can be identified as a literary reinstatement of epistemological premises in the vein of classical natural history. "What keeps natural history together as a scientific field," Staffan Müller-Wille states, is less a distinctly delimited subject area than a certain epistemic attitude which does not primarily aim at quantification and measurement, as well as experiment and evidence, but, rather, at collecting, organizing and passing on what is observed and reported. (1176)

As Tanja van Hoorn has demonstrated in her recent study on the relevance of natural history in modern literature, "Jünger's oeuvre ... bears witness to the familiarity of its author with the field of classical natural history" (253). Although van Hoorn's study examines only two texts from what is considered to be the later period of the oeuvre, namely his novel On the Marble Cliffs (1939) and the entomological diary Subtile Jagden ("Subtle Hunts") of 1967, her findings can be used as a starting point for a thorough reexamination of the importance of natural history in Jünger's works. Bearing this in mind, Stöckmann's paper, titled "Jüngers Spätwerk" ("Jünger's Late Works"), which is one of the first comprehensive, as well as methodically underpinned, attempts to challenge the notion of a definite periodization of Jünger's oeuvre, can be read as further proof for an overarching epistemic approach running through Jünger's entire work. Stöckmann writes:

Fast alles, was Jünger an Diagnosen ersonnen hat, verdankt sich derselben generativen Struktur: Auf einer imaginären Oberfläche bloßer Erscheinungen, die im "Blick" des Autors den Status von bedeutenden Zeichen gewinnen, ordnen die Texte Phänomene an, die aufgrund ihrer Heterogenität zunächst disparat bleiben, in einem zweiten Schritt aber tiefensemantisch integriert werden. Was auf der Oberfläche der Zeiterscheinungen als Syntagma zusammenhangloser Zeichen auftritt, erweist sich in der "Tiefe" als deren verschwiegene, aber zum Ausdruck drängende Bedeutungsuniversale. Autorschaft ist hier kaum mehr, als das Zur-Verfügung-Halten eines Wahrnehmungsschemas und seiner generativen Prozeduren..... (45)

Laying aside the doubts Stöckmann raises concerning the applicability of Jünger's method by putting scare quotes on visual metaphors such as "vantage point" ("Blick") or "deeper level" ("Tiefe"), what he calls a "generative pattern" can be described in terms of natural history, namely as a literary implementation of "collecting, organizing and passing on." This claim can be backed up by the fact that animals (metaphorical and actual), as well as the environments (landscapes, collections, or battlefields) these animals are

^{2 &}quot;Almost every diagnosis conceived by Jünger owes itself to the same generative pattern: On an imaginary level of mere appearances, attaining the rank of signs discernible from the 'vantage point' of the author, these texts arrange phenomena, which remain disparate at first due to their heterogeneous nature; nonetheless, in a second step, they are integrated into the text on a deeper semantic level. On the surface of temporary phenomena, it appears to be a collection of disjointed signs, yet on a 'deeper level,' an indiscernible universal meaning strives to be expressed. Authorship in this sense seems to be nothing more than the willingness to make available a mode of perception as well as its generative patterns..."

situated in, can be found in every major text Jünger has written. Consequently, to understand Jünger as a thinker with a distinct methodic approach is to read him as an author deeply concerned with zoopoetic and ecopoetic concerns.

Two major contexts support the notion that rather than being an "emphatic appeal for interpretation" (Martus 132), indulgent or otherwise, Jünger's proposition of a biblical subdivision of his oeuvre may indeed be read as an unexpectedly precise instruction for understanding the epistemological significance he ascribed to his early writings. The first significant context is time. The journal entry which includes the proposition was written during World War II, on September 16, 1942, a time when Jünger served as an officer in occupied Paris and was mainly entrusted with administrative and documentary work. On November 13, 1941, in one of the most famous journal entries from his first deployment in Paris, between April 1941 and October 1942, he recounts some details of one of the regular informal gatherings he used to have with Hans Speidel, chief of staff to the military commander in France, and other high ranking officers who felt alienated by Hitler's occupation politics. Jünger's characterization of this group, which is tellingly written against the backdrop of one of the oldest animal metaphors of recorded human history, namely the biblical myth of the leviathan, gives a good impression of what kind of impact the war had on him, even though he did not fire a single shot during the entire campaign and rarely visited the front lines:

Unter seiner [Speidels] Aegide bildeten wir hier im Inneren der Militärmaschine eine Art von Farbzelle, von geistiger Ritterschaft; wir tagen im Bauch des Leviathans und suchen noch den Blick, das Herz zu wahren für die Schwachen und Schutzlosen.³ (Jünger, *Strahlungen* 64)

Instead of being the immediate, material, and corporeal experience it had been for Jünger in World War I, war had become a backdrop, an elusive yet haunting atmosphere that had to be taken into perspective time and again.

The second context is setting: the particular environment in which the statement is conceived, as well as the immediate textual surroundings of the journal entry of which the periodization is part. "Mittwochnachmittag wie gewöhnlich im Bois," Jünger notes at the beginning of the entry, "doch

^{3 &}quot;Unter seiner [Speidels] Aegide bildeten wir hier im Inneren der Militärmaschine eine Art von Farbzelle, von geistiger Ritterschaft; wir tagen im Bauch des Leviathans und suchen noch den Blick, das Herz zu wahren für die Schwachen und Schutzlosen."

diesmal nicht in La Bagatelle, sondern im Jardin d'Acclimatation." [Jünger, Strahlungen 164]. Conceptualized and for a short time directed by Isidore Geoffrey Saint-Hilaire, son of the renowned naturalist Étienne Geoffroy Saint-Hilaire, the jardin zoologique d'acclimatation, as it was then called, opened its gates to the public as a supplementary zoo for Paris in 1860, at the height of bourgeois demand for naturalistic experiences. By the time Jünger was visiting the zoo during the occupation of the city, the jardin had become a family-oriented leisure park. However, a collection of farm animals as well as some exotic birds were still on display. At first, Jünger seems to have noticed a couple of Sumatra chickens, "schwarz, mit tiefgrünem Schimmer, der sich im Sonnenglanze herrlich offenbart." [Jünger, Strahlungen 164] He then goes on to compare the lustrous tail feathers of the Sumatra cock to the less conspicuous ones of the common domestic cock, which brings him to the conclusion that differences, especially small ones, are the main mode of expression in nature:

Hierin liegt auch der Reiz der Sammlung, nicht etwa in der Lückenlosigkeit. Es handelt sich darum, in der Vielfalt Aussichtspunkte zu gewinnen, die um das unsichtbare Zentrum der schöpferischen Energie geordnet sind. Das ist zugleich der Sinn der Gärten und der Sinn des Lebensweges überhaupt. ⁶ (Jünger, *Strahlungen* 165)

These two quotes are a characteristic example of Jünger's literary process as a whole: He starts out by drawing up a very specific, very aesthetic description of something, in this case the plumage of the Sumatra chickens. He then moves on to an even more specific detail, "the elementary quantum of aesthetics" (24) as Hans Blumenberg calls it. This detail, namely the tail feathers of the Sumatra cock, serves as the starting point for a more general reflection on the sphere it is derived from, in this case "the allure of collecting." Finally, Jünger ends by making a sudden conjunction to another seemingly distinguished sphere: "life's journey" can be seen as a form of collection which is somewhat similar to the naturalistic collection of a zoological garden. It should be added that this ostensibly incidental mentioning of "life's

⁴ "Wednesday afternoon at the Bois as usual, however, this time not at *La Bagatelle* but at the *jardin d'acclimatation*."

 [&]quot;[B]lack, with deep green sheen, gorgeously revealed by the plenteous glitter of the sun."
 "Herein lies the allure of collecting, it is not about completeness. It is about attaining some vantage points amidst the richness of all that is arranged around the indiscernible center of creative energy. This is the point of the garden and it is the point of life's journey in general."

journey" is indeed very carefully arranged with regard to the inference at the end of the journal entry.

Two more instances of initiating this descriptive-reflective script can be identified in this particular journal entry. After the scene with the Sumatra chickens, Jünger goes on to describe a small pond near the *Pavillon d'Armenoville*:

Die weichen Flossenschläge von Fischen oder der Fall von einer reifen Kastanie zog über seine [des Teiches] Fläche feine Wellenkreise, die sich schnitten und so ein zartes Gitter schufen, in dem sich herrlich das Grün der Bäume fing. Sein Netzwerk schien sich an den Borden zu verfeinern, so daß die Blätter einer großen Katalpe in der Mitte in Kreisen und Ovalen blänkerten, um dann am Ufer in grüne Bänder zu verschmelzen, die zitternd gleich Fahnen in die Tiefe eintauchten. [Jünger, Strahlungen 165)

What Jünger depicts in this scene is considerably more complex than his description of the Sumatra cock. Fish, chestnuts, the catalpa, as well as the pond itself, are bound by a sophisticated framework of relations that is made visible by the different undulations on the surface of the pond and perceived only by Jünger himself. While this scene certainly has aesthetic value, it seems also to imply a significance exceeding the basic idea of all-connectedness in nature. Yet in itself, the scene does not provide the means to decipher the deeper meaning it is hinting at. Jünger goes on to reveal that what he has just described can be read as a metaphor for the process through which anything new emerges in the world:

Gedanke: so müßte man die neuen Töne bringen, didaktisch, im Spiegelbilde, das dem vertrauten Bilde angeheftet ist.... Das Neue wirkt immer so, daß es zunächst ans Gültige sich anfügt, als zarter Widerspruch, als Schatten der Möglichkeit.... Das Neue siedelt erst lange in Reflexionen und an fabulösen Rändern.... (165-166)

^{7 &}quot;The soft flaps of fish fins or the plunge of a ripe chestnut unfurled soft undulations on its [the ponds] surface, intersecting and thus creating a delicate grid, in which the green of the trees was gorgeously ensnared. This meshwork seemed to refine itself on the banks, with the result that the leaves of a large catalpa at the center started to skirmish in circles and ovals, only to coalesce to green ribbons, which plunged into the depth, quivering like flags."

^{8 &}quot;Thought: This is how one would have to reveal the new sounds, didactical, in a mirror image which is attached to the familiar image.... The new always exerts by attaching itself to what is available, a soft dissent, a shadow of contingency. After that it starts to permeate objects.... The new settles in reflections and fabulous margins for a long time."

He then continues to illustrate this idea by giving brief explanations of how this process can be traced in the history of art, games, utopias, philosophy, and theory. What is, however, crucial about this theory of the new, especially with regard to the context, is the notion that it can be understood as the complementary component to his idea of the collection as a means to gain "vantage points" among the vast richness of nature.

Looking at the journal entry of September 16, 1942 as a whole, it becomes clear that there is indeed nothing coincidental about this text, that it is, on the contrary, a carefully crafted literary "exercise in seeing" (7), as Sandro Gorgone puts it. This particular exercise, dated September 16, can be subdivided into three distinct instances of Jünger's descriptive-reflective script, which in combination form a complex argument. The first instance is guided by the description of the Sumatra chicken, then leads to the theory that the coherence of a collection is ensured by the juxtaposition of differences and similarities, and concludes by adding "life's journey" (Jünger, *Strahlungen* 165) to this notion. While the first instance focuses on an animal, the second goes on to describe a complex environmental network located in and around a pond. Here Jünger augments his initial concept by adding the encroaching and permeating effect of the new. He finally goes on to initiate the last instance of his descriptive-reflexive script by adding another animal at the fringes of the pond:

Nicht zu vergessen: die beiden Eisvögel, die hier am Rande der Großstadt über Polstern von Wasserlinsen dahinschwirren. Sie nisten in dem kleinen Zufluß, der das Teichlein speist. Von allen Wendungen dieses juwelenhaften Tieres finde ich die am schönsten, in der es das Schwanzgefieder zeigt—der lasurblaue Rücken blitzt dort pulvrig wie Türkisstaub auf.⁹ (166)

As with the Sumatra cock, the aesthetic experience derived from a particular animal seems to be at the core of this description. However, this time, Jünger specifies the environment the animal is situated in, thus contextualizing this aesthetic experience in two important ways: On the one hand, he mentions that the whole scene takes place "on the outskirts of the big city," i.e., occupied Paris, and on the other hand, he explains that the kingfishers nest at the edge of the pond, namely its inlet. This double enclosure complicates the

[&]quot;Not to forget: the two kingfishers whirring above pads of duckweed at the outskirts of the big city. They nest in the small inlet which supplies the little pond. Of all the expressions of this jewel-like animal, the one I find most beautiful is when it shows its tail feathering—then the translucent-blue back flashes powdery like turquoise dust."

epistemic constellation unfolding throughout all of the journal entry even further. Occupied Paris, "the belly of the leviathan" (64), may be a relatively safe place compared to other parts of Europe during World War II, but this safety is fragile, temporary, and only possible due to the transient military superiority of the German Wehrmacht. Accordingly, the small pond on the outskirts of Paris is also a relatively safe place, but this safety is even more fragile and temporary. Jünger hints at this precarious situation by stressing that the kingfishers nest on the edge of the pond just like the occupied city is "nesting" on the edge of the park. Considering the separate addition of the kingfishers to the scene at the pond, their "fringe" position between the occupied city and the pond, as well as the physical effects their "whirring" must have on the pond's relatively calm surface, it becomes clear that the whole carefully crafted epistemic construction, the meshwork of undulations, has to be modified. With this, Jünger illustrates the corrective effect of the new. However gentle the encroaching of the new might seem, it is still an agent of change. In short: Every collection, every "vantage point" is transient.

With all this in mind, it becomes comprehensible why Jünger chooses the tradition of biblical exegesis, the practice of re-reading and re-contextualizing, for his self-classification as a reflective companion piece to his description of the kingfishers at the edge of the pond. Once it is established that "life's journey," and therefore Jünger's literary career, too, can be described as a naturalistic collection which is held together by a delicate meshwork of differences and similarities and which is, at the same time, constantly facing the necessity of reevaluation due to the introduction of the new, it becomes clear that Jünger's proposition for a biblical reading of his early texts is not an act of self-preservation; it is an admission that these texts are deeply compromised by the current events of the time, namely World War II and fascist politics in general. The pond, as Jünger describes it, is an immersive and self-contained system of signs and references. Likewise, his interwar essays on war, pain, and technology are structured by a set of ideas and beliefs which have to be called into question once he is forced by current events to widen his perspective on these subjects and the line of thought they bring about. By contextualizing this admission the way he does, he provides the means to preserve certain aspects of his insights on technology, which, as he suggests, hold true despite the political climate in which they were conceived. What presents itself as an apotheosis of a few texts on technology turns out to be an allusion to the medieval tradition of biblical exegesis: Jünger's proposition amounts to invoking natural history as the common denominator of his entire oeuvre, thereby laying the foundation for a hermeneutical re-reading of his early texts, suggesting that they may be read in the same manner as Christian biblical scholars have read the Old Testament. "Hermeneutics is normally defined as signifying the systematic methods and practices of explication, of the interpretative exposition of texts, in particular (or particularly) scriptural and classical" (Steiner 7). From the perspective of literary studies, this type of diachronic reading leads to an inversion of the usual interpretative scheme, prioritizing Jünger's later naturalistic texts and using the insights derived from these studies "to make the refractory text[s] speak to the present moment and the issue at hand" (Burns 321).

In the following, I will first give a brief overview of what I call Jünger's entomological hermeneutics—a theory he develops during the 1960s—and then move on to give an impression of how this theory could be used to provide an aesthetic perspective on the epistemological implications of his interwar essays.

Beetles and Landscapes: Jünger's Entomological Hermeneutics

Literary descriptions of various beetles as well as some remarks on collecting natural objects can be found as early as 1924 in the third edition of Storms of Steel. Yet Jünger only approaches this subject in a somewhat systematic manner forty years later: In 1963, he publishes a treatise entitled "Typus, Name, Gestalt" ("Type, Name, Gestalt"), to which he refers as the result of his ongoing preoccupation with "zoology, entomology in particular, the universals controversy, Far Eastern religion" (Archival, 2.4.1963) in a letter to the publisher Hans Walter Bär. Two years later, in 1965, he gives a speech in front of the society of Bavarian entomologists entitled Researchers and Enthusiasts and publishes the essay Bordercrossings. In both these texts, Jünger compares and contrasts aesthetic and scientific descriptions of nature, as well as exploring their respective benefits and responsibilities. Finally, in 1967, he recounts his own entomological biography in the diaristic essay "Subtile Jagden" ("Subtle Hunts"). According to Gunther Martens, Jünger's beetle hunts can be described as a "phenomenological world experience, characterized by conflation and participation, which are more reminiscent of hermeneutics than positivism" (154). The basic principles of these "entomological hermeneutics" can be delineated in three steps: affection, differentiation, and responsibility.

1. Every decision to start a naturalistic collection is preceded by a basic affection for a noticeable representative specimen. In "Subtile Jagden" this

noticeable representative is a tiger beetle, which Jünger encounters at the age of twelve in a sandpit near his house:

Wie gesagt, währte die Begegnung nur einen Augenblick, allein der Funke zündete. Ebenso überraschend, wie das Inbild erschienen war, verschwand es; in beiden Bewegungen verbanden sich Leichtigkeit und Kraft: zunächst ein Davonschießen auf ebener Erde, fast unsichtbar schwebend, und dann mit einer zarten Explosion von bunten Metallen die Ablösung. ¹⁰ (Essays IV 69)

This encounter can indeed be called an "ignition spark" for two reasons: On the one hand, this *kairos*-experience can be read as the literal sparking of affection, on the other hand—read in combination with the oxymoron "tender explosion" at the end—it points to the indeterminability of this first encounter. What Jünger delineates, using the example of the tiger beetle, can be compared to what Hans-Georg Gadamer has called "the stimulus" in his essay "On the Circle of Understanding" (1959): "For whatever entices us to understand has first to have made itself prominent in its otherness. The first thing with which understanding begins is that something speaks to us. That is the supreme hermeneutical requirement." (77)

2. Once a certain interest has emerged, what follows is a differentiation in the structure of the collection on the basis of the collectibles themselves. On the one hand, these collectibles are irreducible due to their "distanced objectivism" ("Circle" 76), on the other hand, they all point to the basic theme of the collection. This is where Jünger's concept of the type, which is directly derived from his entomological practice, comes into play. In "Type, Name, Gestalt" he writes:

Wenn wir ein bestimmtes Tier, etwa ein Insekt, als "Scarabaeus" ansprechen, so ging dem die Begegnung mit einem vergänglichen Individuum voraus. Wir setzen und benennen es als Typus: Der Name umgrenzt nunmehr ein Fach, in dem wir alle anderen Individuen dieser Art mühelos unterbringen, mögen sie uns nun in der Natur begegnen oder nicht, ja mögen sie auch nur gedacht werden. Legionen passen hinein. Der Typus ist das Vorbild, an dem wir Maß nehmen. 11 (Essays VII 99)

[&]quot;As I said, this encounter only lasted for an instant; alas a spark ignited. As surprisingly as this epitome appeared it vanished; both of these motions were inhabited by levity and vigor: at first a darting-off on plane soil, almost invisibly floating, and then a tender explosion of multicolored metals: lift-off."

[&]quot;If we call a certain animal, for instance, an insect, 'Scarabaeus', this was preceded by an encounter with an ephemeral individual. We position and denominate it as a type: henceforth this name delineates a compartment in which we can effortlessly accommodate every

Type as an entomological concept amounts to what Julia Draganović calls the paradox phenomenon of a "substantial idea" (23-26) in Jünger's writing, because it is on the one hand a material object and on the other hand a "pattern" by which other objects of its kind can be described. Jünger stresses the decision-based character of this process: The insect collector has to "position and denominate" in order to transform the "ephemeral individual" into an entomological type. Once this operation is successful the mounted beetle can offer insight into different taxonomic ranks. According to Jünger, however, these idealized "compartments" are more than mere arrangements of taxonomical markers. Considered from the right angle, they might give some indication of the entity which generated these markers: "In dieser Folge hat sich die wirkende Natur, als ob sie immer stärkere Wellen ausgesendet hätte, dem Auge offenbart. Der Mensch hat ihr im gleichen Verhältnis mit der unterscheidenden und diagnostischen Schärfe, zunächst des Blickes und sodann der Sprache, geantwortet." (Essays VII 99) For Jünger, the "agency of nature" (more traditional: *natura naturans*) is the source of every phenomenon. Through what Jünger describes as the act of typologization, man can create "vantage points" ("Aussichtspunkte"; Strahlungen 165), which can be used to trace nature's signal by ascending the taxonomical ranks, thereby approaching, yet never reaching, its source.

3. As an ongoing hermeneutic occupation, collecting draws its legitimacy from respect for its subject matter. Therefore, in a moral sense hermeneutics can be described as "the enactment of answerable understanding, of active understanding" (Steiner 7). For Jünger this responsibility is exemplified in the relationship of man with the environment from which the beetles stem and by which they are formed. A common example of these environmental characteristics is camouflage, which render the animals almost invisible in certain aspects of their natural surroundings. In zoology this process of becoming invisible is called *somatolysis* (i.e., the dissolution of the body). Jünger reverses this process in his environmental readings by looking at certain details of the beetles in his collection and thereby reconstructing the specific locations in which they would have been rendered invisible. In "Subtile Jagden" he summarizes:

other individual of this kind, whether or not we encounter them in nature, whether or not they actually exist. Legions fit in. The type is the pattern by which we take measure."

[&]quot;In this succession the agency of nature revealed itself to the eye, as if it had sent off increasingly stronger waves. Man has answered this call in proportion with a distinguishing and diagnostic sharpness, at first by looking, then by speaking."

Es gibt ein Schriftbild der Natur, das in der Betrachtung seiner feinsten Züge geübte Auge erkennt in ihnen die Charaktere eines Weltteils, einer Insel, einer Alpenkette, so wie der Kundige die Eigenart des Menschen aus seiner Handschrift zu deuten weiß. ¹³ (Essays VI 31-32)

Jünger's art of reading the beetles can be described as an entomological fusion of horizons, a literary staging of what Gadamer calls "the experience of a tension between the text and the present" (*Truth* 305): On the one hand the "most subtle features" of the beetles can be understood as very specific characters that form a prehistoric text, bearing witness to evolutionary and geological processes spanning millions of years, on the other hand this look at ancient times puts the issues of modern times into perspective. Hermeneutics, the art of construing and understanding meaning, is thus expanded to everything that comes into being.

Ants and Battlefields: A Taxonomy of Technological Modernism

I want to conclude this brief outline of Jünger's entomological hermeneutics with an even briefer glance at the underlying naturalistic structure of his interwar essays. On February 10, 1916, under the impression of early attrition warfare, Ernst Jünger writes a letter to his younger brother Friedrich Georg including the following line: "Vielleicht leben auch wir hier in unseren Bauten instinktiver als wir ahnen, etwa wie die Ameisen" (Feldpostbriefe 75). It is telling that Jünger articulates one of the earliest accounts of his life during World War I by comparing infantrymen like himself to ants; moreover, his statement encapsulates what will in his later texts become the basic relation of animal and environment, situating it in a technological context: "[D]ie Landschaft des Schlachtfeldes [ist] keine Naturlandschaft, sondern eine technische "15 (Politische Publizistik 234). To survive in this hostile environment of constant artillery fire, the infantrymen have no choice but to create somewhat safer niches, namely makeshift dugouts or "Bauten" as Jünger writes in his letter. From Jünger's perspective these circumstances transform the soldiers into ant-like creatures: "Da hockten sie im Engen, verwogene

[&]quot;There is a type face in nature; to an eye, which is trained in looking at nature's most subtle features, the characteristics of certain parts of the world, certain islands, certain chains of the Alps become as discernible as an individual becomes to someone who is trained to construe the idiosyncrasies of a person by looking at his or her handwriting."

[&]quot;Maybe we do live more viscerally here in our constructions, perhaps like ants."

"IThe landscape of the battlefield is not a natural one, it is a technical landscape."

Brut, verwittert und zerschlissen, mit Gesichtern wie geschliffene Klinge...." 16 (*Essays I* 58)

These deliberations about a convergence of human and animal in the image of the ant can be read as early rudiments of Jünger's natural historical-typological re-conception of man, which is primed in his war memoirs, biologically underpinned in his articles on military theory from 1923 onwards, and fully realized in his essay *The Worker* (1932). The emergence of technology as a driving force of modernity, he argues in this major work of the interwar period, has put the whole world in a precarious state akin to the battlefields of World War I:

Augenfällig wird dieses provisorische Verhältnis an dem wirren, unaufgeräumten Zustande, der seit über hundert Jahren zum Kennzeichen der technischen Landschaft gehört. Dieser das Auge verletzende Anblick wird nicht nur durch die Zerstörung der Natur- und Kulturlandschaft hervorgerufen—er erklärt sich durch den unvollkommenen Zustand der Technik selbst. Diese Städte mit ihren Drähten und Dämpfen, mit ihrem Lärm und Staub, mit ihrem ameisenhaften Durcheinander, mit ihrem Gewirr von Architekturen und ihren Neuerungen, die ihnen alle zehn Jahre ein neues Gesicht verleihen, sind gigantische Werkstätten der Formen—sie selbst aber besitzen keine Form. ¹⁷ (177)

As with his later entomological hermeneutics, the basic relationship here is that between an environmentally framed productive agent, i.e., "workshops of form," and a species which is formed by it, in this case the ant-like worker. If Jünger's war memoirs are to be considered as an effort to identify a warbred, ant-like species of man, based on the model of natural history, then his interwar essays can be read as components of the large-scale reconstruction of the natural system that this military-myrmecological species might be situated in.

To conclude: There remains a structural difference between ants and beetles, as well as between battlefields and landscapes. However, these differences are not differences in kind. The denoted entities as well as their

[&]quot;There they hunker in density, reckless brood, weathered and raddled, with faces like sharpened blades…"

[&]quot;This tentative condition becomes palpable due to the chaotic, untidy state which has been a notable feature of the technical landscape for over a hundred years. This eyesore is not caused by the destruction of the natural and cultural landscape alone; it can be explained by the imperfect state of technology itself. These cities with their wires and fume, with their noise and dust, with their ant-like clutter, with their tangle of architectures and innovations, which give them a new face every ten years, are gigantic workshops of form, yet they do not hold a form themselves."

respective relationships can be meaningfully compared with each other through the lens of natural history. This comparability of carefully crafted zoopoetic as well as ecopoetic motifs could subsequently serve as an entry point for a comprehensive re-reading of Jünger's oeuvre, which, on the one hand, would bridge the ostensibly substantial gap between his early and his later works, while, on the other hand, leaving contradictions, contexts, and self-corrections intact.

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W.G. Sebald's Zoopoetics: Writing after Nature

If you grow up not with toys bought in the shop but things that are found around the farmyard, you do a sort of bricolage. Bits of string and bits of wood. Making all sorts of things, like webs across the legs of a chair. And then you sit there, like the spider. (Sebald qtd. in Lubow 159)

Introduction: Sebald's Poetics of Connection

From the prose poetry of After Nature (Nach der Natur: Ein Elementargedicht; 1988) to the hypotactic clauses of Austerlitz (2001), W. G. Sebald's distinctive prose style often relies on a single thematic and formal motif: connection. Paths cross, worlds collide, and for those paths and worlds that do not cross or collide, Sebald's synoptic narrators are there to assure us of their linking, and of the interconnectedness of all things. As Sebald himself remarks, "I have slowly learned to grasp how everything is connected across space and time" (A Place 149). The word connection, then, designates the tentatively totalizing perspective of Sebald's narrative style, whereby the internal plot of a given work is sparked and organized by an archival drive in which phenomena are discovered and linked together. Within this hyper-connected system of experience and memory, Sebald's literary style itself becomes an exercise in connection, a performance of "making in prose a decent pattern out of what comes your way" (Sebald and Turner 24), in which historical events, intertextual markers, extended digressions and grainy images are connected together through uncanny coincidences in the present-tense event of narration. Scholars of Sebald's work have been quick to study this aesthetic form-what I will call the author's poetics of connection-as a crucial methodological device. As early as 2003, for instance, Mark McCulloh described the poetics of connection as Sebald's "guiding principle" (63), and in 2014 Timothy Bewes argued that "the question of connection, the problem of connection, might be said to be the central preoccupation of [Sebald's] writing" (3). Over this long decade of Sebald scholarship, many

On the growing body of work devoted to Sebald's poetics of connection, see in particular: Friedrichsmeyer 2006; Fuchs, "Zur Ästhetik der Vernetzung"; Ryan "Fulgurations"; Gray.

of the most convincing studies have traced Sebald's poetics of connection back to its influences from Walter Benjamin, the Frankfurt School, and the historical-materialist praxis of constellating discrete ideas and images. Such a spatiotemporal linking, the argument suggests, enables Sebald's prose fictions to visualize and connect historical catastrophes together with a view towards generating a reconstituted ethics in the post-Holocaust world.

Think of the closing pages of *The Rings of Saturn* (Die Ringe des Saturn; 1995). Here Sebald's narrative concludes by performing two ostensibly separate digressions which are then themselves connected together. First, and inside the text's narrative frame, is a connection by theme. Sebald's narrator details the long history of the sericulture trade, tracing threads of silk-which become threads of narrative-across processes of global trade and industrialization from China to France, culminating in the "entire killing business" (294) of the Third Reich. And second, breaking the frame narrative and hence in the "now" of the writing event itself, is a connection by date. Sebald creates a melancholy calendar of overlapping events that each occurred on the thirteenth of April, evoking what Jacques Derrida would call "the poetic experience of the date" (6). This poetic experience of the date is rendered as a melancholic recognition of history as a "long account of calamities" (Sebald, Rings 295), with the thirteenth of April memorializing the establishment of the Anti-Semitic League in Prussia, the Amritsar massacre in Punjab, and-on a more personal level for Sebald's narrator—the death of his father-in-law. Struck by the "profound grief" of this historical abyss, Sebald's narrator turns again to silk, noting the integral function of silk in mourning rituals. And yet, although *The Rings of Saturn's* final sentences promise a certain transcendence-the soul leaving the body as it takes "a last glimpse of the land now being lost for ever" (296)—the reader is nevertheless alerted to the connective work at play that both compromises and implicates the soul and the novel as they move into their respective afterlives. Sebald's concluding remarks on mourning rituals become symbolically connected to the very capitalist circulation that his narrator suggests is connected leads to Nazism. By connecting together material histories in one extended syntactic gesture, Sebald develops a melancholy ethics of memory and implication that performs itself on a sentence-by-sentence-or clause-by-clause-level. Sebald's poetics of connection, then, is one of the major driving forces behind his work's aesthetics.

On Sebald's debt to the Frankfurt School, cf. Dubow; Hutchinson *Imagination*; Hutchinson "Shadow"; Long "Contact Zone"; Ward.

Building on these previous approaches, this essay begins from two interrelated premises: first, that Sebald's style can be productively described as a form of zoopoetics; second, that because Sebald's literary project also situates itself within the cultural-temporal horizon of modernity, it can be argued that Sebald's zoopoetics is related to an ecocritical imagination. My first premise, then, is that Sebald's poetics of connection is structurally related to an interaction with nonhuman animality. More specifically, I want to discuss one instance in which Sebald's connective prose style is inspired by the *autopoietic* movement of nonhumans. Sebald, in an act of reading and interpreting an image of a spider, *translates* nonhuman movement into human language.

My definition of zoopoetics emerges out of three particular formulations: first, Aaron Moe's definition of zoopoetics as "the process of discovering innovative breakthroughs in form through an attentiveness to another species' bodily poiesis" (10); second, Kári Driscoll's claim that zoopoetics is an interrogation of the relationship between animality and language, that it at once "inhabits the 'abyssal rupture' between human and animal, and reveals how that dividing line is fragmented, unstable, and internally incoherent" (223); and third, Roberto Marchesini's conceptualization of "zoomimesis." Marchesini proposes that "human creativity" is not "the autarchic act of the demiurge artist," but rather "a transformation in one's own being in the prospect of reflecting the other" (178). Marchesini argues that what we routinely think of as purely "human" aesthetic forms are in fact produced within a zone of interpretation that "envisage[s] a merging between entities" (178). Put simply, Marchesini is cautioning us against seeing the creation of artworks as removed from forces that exceed the human subject, be they cultural or—in this case—nonhuman. Under Marchesini's formulation, animals in particular are seen as "deforming mirror[s]" (177). That is, humans are deformed and formed anew by their non-recognition of themselves in the animal.

Following these definitions, I see zoopoetics as a mimetic act of translation whereby humans read and interpret what they take to be nonhuman signs. Because of this, zoopoetics is also a fundamentally ambivalent engagement with animality. It can take the form of a deconstruction, a bridging, and/ or a re-instantiation of the supposed threshold that separates humans and animals. As Jacques Derrida writes in his *The Beast and the Sovereign* seminars, it is "in our way of translating what are called animal reactions that we believe ourselves able—but this is a risk of translation—to discern or trace a limit between animality and humanity, reactive animality and responsive or responsible humanity" (336). While Derrida's notion of translation is much broader than my own, focusing as it does on an entire cultural history of

human-animal relationships, his words offer a helpful way for theorizing zoopoetics as one specific node of this translation exercise that occurs when humans *think about* animals. In sum, zoopoetics might therefore be thought of as one particular way, a stylistic way to be precise, in which humans "translate" their encounters with nonhumans. My essay therefore focuses on how Sebald's poetics of connection—as a formal breakthrough in language *and* as an ambivalent interrogation of animality and language—is precipitated in part by an image of a scurrying spider. To do this, I will first turn to Sebald's final public speech before his premature death. Here, I identify how Sebald summarizes his aesthetics by recourse to the figure of a spider. Sebald self-consciously characterizes his own stylistic project as one that is contingent on the metaphorics of nonhuman *poiesis*.

The second premise that I want to begin with is the idea that Sebald's project is pitched at least in part as a response to a temporal and thematic focus, namely the idea that modernity is situated "after nature." Here I pick up on the title and content of Sebald's first creative publication, After Nature, as well as J. J. Long's argument that the "individual topoi" of Sebald's texts the Holocaust, trauma and memory, melancholy, photography, travel and flânerie, intertextuality and Heimat—"can in fact be seen as epiphenomena of a much wider 'meta-problem' in Sebald's work ... That is the problem of modernity" (1).3 In other words, Sebald's work not only bears witness to the singularity of the Holocaust but is also written so as to encompass the deeper historical time of modernity. And modernity is, in Sebald's works, a period which sees a rearranging of ecology, in that it disarticulates humans from nature. I take this idea forward in my conclusion, in which I explore how Sebald's zoopoetics is also structurally tied to an ecopoetics. Under this reading, Sebald's poetics of connection begins to look more and more like a narrative ecology; Sebald's texts not only thematically but also formally echo the ecological principle that "everything is connected to everything else" (Commoner 16). Sebald's connective memory-work is an attempt to tentatively push back against the forces of alienation that disarticulate history from nature, which is also to say, the human from both the environment and nonhuman animals. Sebald's poetics of connection is committed to drawing connections between subjects and objects-including humans and nonhumans-that have been alienated from one another during modernity. Thus, it can be claimed as both a zoo- and ecopoetics.

³ See also Hutchinson, *Imagination*; Burns and van der Will.

"A spider in the skull": Sebald's Zoopoetic Attempt at Restitution

There are a handful of moments throughout Sebald's literary project in which his style can be seen to take shape because of nonhuman *poeisis*. Moths and butterflies, for example, serve as crucial figures in what Sebald calls the "rather trite" (Kafatou 35) symbolic economy of metamorphosis and transcendence that seem to be foreclosed in The Rings of Saturn and Austerlitz. Moreover, in an interview with Joe Cuomo in 2001, Sebald reflects on the nonlinear method of connection that brings *The Rings of Saturn* into a cohesive whole: "I never liked doing things systematically," Sebald writes. Instead, his method takes inspiration from what he takes to be the aleatory wanderings of a dog: "If you look at a dog following the advice of his nose, he traverses a patch of land in a completely unplottable manner. And he invariably finds what he's looking for. I think that, as I've always had dogs, I've learned from them how to do this" (Sebald, "Conversation" 94). Here Sebald suggests that the writing of his works—and indeed these works' formal and methodological qualities—are contingent on learning and mimicking the movement of dogs.

For the purposes of this essay, I will focus on one major example of Sebald's zoopoetics. This example comes in "An Attempt at Restitution" ("Versuch der Restitution"), a speech delivered by Sebald at the opening of the *Literaturhaus Stuttgart* in November 2001.⁴ "An Attempt at Restitution" is a slight but significant address, not only because it marks Sebald's final public appearance before his death, but also because it sees the author offer a sincere distillation of his wider creative preoccupations and his stylistic project. As Jeannette Baxter, Valerie Henitiuk and Ben Hutchinson put it—in a collection that is in many ways a direct response to Sebald's final speech—"illustrated in crystalized form here are some of the recurring concerns of, and tensions in, Sebald's writing" (1). Lynn Wolff echoes the notion that "An Attempt at Restitution" is typically Sebaldian, stating that it flags up the "essential tension in Sebald's writing: the relationship between history and literature, documentation and imagination, rational explanations and defiantly non-rational insights" (96).

Sebald begins his speech by jumping from personal to collective memory, describing a childhood card game he would play with his father, before then turning to Hölderlin's visit to Tulle, and the later 1944 massacre that would

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happen in the same town. In this sense Sebald connects his narrative "I" to a plurality of deeper historical and geographical scales that precede and exceed him. The main questions that animate "An Attempt at Restitution" revolve around the purpose of literature itself. Sebald frames this question as follows: "A quoi bon la littérature? Perhaps only to help us remember, and teach us to understand that some strange connections cannot be explained by causal logic" (Campo Santo [trans. Bell] 214-15). Sebald's poetics of connection comes into view here as a formal economy of remembrance, but despite this provisional ("perhaps") logic Sebald switches to a more affirmative vein: "[T]here are many forms of writing; only in literature, however, can there be an attempt at restitution over and above the mere recital of facts and over and above scholarship" (215). For Sebald, then, it is literature's form "over and above" other forms that facilitates an "attempt at restitution." More precisely, it is literature's formal potentiality to make "strange connections" that opens up this possibility for restitution. Sebald's poetics of connection is therefore co-constitutive with his attempt at restitution.

At the center of "An Attempt at Restitution" is Sebald's recollection of his visit to the artist and former school friend Jan Peter Tripp in May 1976.⁵ Sebald's tells us that it is this visit that convinces him that he must do something else "besides giving lectures and holding seminars" (210):

At the time Tripp gave me a present of one of his engravings, showing the mentally-ill senatorial president Daniel Paul Schreber with a spider in his skull—what can there be more terrible than the ideas always scurrying around our minds?—and much of what I have written later derives from this engraving, even in my method of procedure: in adhering to an exact historical perspective, in patiently engraving and linking together apparently disparate things in the manner of a still life. I kept asking myself since then what the invisible connections that determine our lives are, and how the threads run. (*Campo Santo* [trans. Bell] 210)⁶

Sebald's stylistic relationship with Tripp can be further adumbrated by looking at Sebald's essay on the artist in A Place in the Country.

In the German-language original, Sebald writes: "Tripp hat mir damals einen von ihm gefertigten Stich als Geschenk mitgegeben, und auf diesen Stich, auf dem der kopfkranke Senatspräsident Daniel Paul Schreber zu sehen ist mit einer Spinne in seinem Schädel—was gibt es Furchtbareres als die in uns immerfort wuselnden Gedanken?—auf diesen Stich geht vieles von dem, was ich später geschrieben habe, zurück, auch in der Art des Verfahrens, im Einhalten einer genauen historischen Perspektive, im geduldigen Gravieren und in der Vernetzung, in der Manier der *nature morte*, anscheinend weit auseinander liegender Dinge" (243).

It is worth explicating this quotation. Sebald begins with the image of Tripp's gift, an engraving of Daniel Paul Schreber, *Senatspräsident* in late nineteenth-century Dresden and a famous sufferer of acute paranoid schizophrenia. Schreber's story has become a pivotal case study for psychoanalytic work from Freud to Canetti, and from Deleuze and Guattari to Eric Santner. Indeed Santner's most recent analysis in *On Creaturely Life* (2006) reads Schreber as "a kind of totem for Sebald's work" (175). Santner sees Schreber as an emblematic figure whose feverish thought processes inspire Sebald's own focus on wounded and traumatized characters and histories. What Santner does not recognize in this totemic relationship, though, is the *other* totem in Tripp's illustration, namely the totem *within* the totem: for emerging from the inside of Schreber's head, Sebald tells us, is a spider, "a spider in the skull" (210).

Santner's analysis is correct in the sense that Sebald's focus on what he calls the "terrible" and "scurrying" spider means that, at one level, Sebald identifies the spider as an uncanny and parasitic occupation of Schreber's brain; Schreber's mental illness becomes figured as a nonhuman organism that, in its movement, animates-or even "spins" (210)-Schreber's deteriorating condition. In other words, in contrast to the Aristotelian idea of the person being a controlled composite of rationality and animality (Esposito 7), Schreber's mental condition has reawakened the animal that lies dormant inside the human. But what is important here is that Sebald does not merely see this parasitic occupation as being specific to Schreber alone. Rather, the spider is pictured as "always scurrying around our minds" (210; emphasis added). Tripp's illustrated spider is therefore portrayed as a totemic animal that occupies—or *possesses*—the mind of both the personal and the collective. Sebald reads the spider as symptomatic of both the scattered thoughts of a paranoid schizophrenic and the equally scattered thoughts that occupy all of our minds. Thus one conclusion that can be immediately drawn from this arachnid occupation is that Sebald sees human "ideas" themselves as autopoietic systems that mime the "terrible" and "scurrying" movement of the spider.

But another point I want to make here is that, for Sebald, this particular image of a spider comes to occupy a central place within his own conceptualization of his creative technique: "[M]uch of what I have written later derives from this engraving, even in my method of procedure." And this "method of procedure" is identified as none other than Sebald's poetics of connection: "in adhering to an exact historical perspective, in patiently engraving and *linking together apparently disparate things* in the manner of a still

life" (210; emphasis added). Thus although "Sebald's scholarly writings on literature tend to focus on themes and issues rather than on narrative technique" (Ryan, "Sebald's Encounters" 123), here we get exactly that, a description of the "method of procedure." Buttressed by the later references to "invisible connections" and "threads," Sebald's metaphors also liken his connective literary method to the web-making *poiesis* of the scurrying spider. And it seems as if the passage itself takes on some of these "terrible" and "scurrying" qualities. Sebald pierces the hitherto steady rhythm of his speech by enclosing a subclause within interruptive dashes: "—what can there be more terrible than the ideas always scurrying around our minds? —" (*Campo Santo* [trans. Bell] 210). Sebald reflexively interprets the spider's "terrible scurrying," incorporating the spider's movement into his own rhetorical delivery. Sebald generates a syntactic style that emerges when the human takes notice of and responds to the nonhuman, translating its movement into human aesthetic form.

Thus, when Sebald says that his creative work "derives from this engraving, even in [the] method of procedure" (210), what he means is that Tripp's artwork stages a tension between aesthetic and biological forms that inspires the aesthetic repertoire that Sebald will go on to employ in his texts. This might explain, then, why moments of cross-species interaction within Sebald's later work—the raccoon in *Austerlitz*, or the quail in *The Rings of Saturn*—are quite so affectively charged. Here Sebald's narrators come up against what the author's prose style is also interested in exploring: the separations and connections that mark the human/animal boundary.

This is not to say that Sebald's style operates in a one-to-one relationship with animality. This would be to argue that zoopoetics is the hidden crux of Sebald's entire project. Rather, I am suggesting that the much discussed "hybridity" (Wolff 80) of Sebald's poetics of connection is informed by an encounter—a scene of translation—between human and nonhuman forms. Sebald's poetics of connection is hybrid precisely because it recognizes the importance of nonhuman forms to human thought.

Conclusion: Writing after Nature: Zoopoetics and Ecopoetics

There has recently been a move among Sebald scholars to try and pin down the stakes of the author's treatment of nonhuman worlds. Lynn Wolff, for example, writes that Sebald "does not privilege the human being above all other forms of life, rather his concern is for life in all forms: human, animal, and natural" (5-6). This sentiment is rearticulated in even stronger terms by

Anne Fuchs who argues that Sebald's prose in fact disputes the "disastrously anthropocentric world-view of the modern era" ("Sebald's Painters" 173). And for Hans-Walter Schmidt-Hannisa, Sebald's textual worlds rank as being among "the most species-rich biotopes to contemporary German-language literature," and he argues along similar lines to Wolff that Sebald's work is ontologically non-discriminatory and on occasion even "anti-speciesist" (32). If Wolff, Fuchs, and Schmidt-Hannisa are all correct then the question that necessarily follows is this: *How* do Sebald's texts challenge anthropocentrism?

It is beyond the scope of this chapter to answer this question, but by way of a conclusion I would like to propose two possible arguments for approaching this question in the future. One argument to put forward would be one which Wolff, Fuchs, and Schmidt-Hannisa all make themselves, namely that Sebald's texts counteract anthropocentrism by virtue of their biodiversity. By including nonhuman animals within the narrator's connective memorywork, these authors argue, Sebald's project "aims to correct a concept of history which completely neglects the fate of animals" (33). Nevertheless, if we are to answer the question of anthropocentrism in Sebald's works, then it is equally important to propose a second possibility: not just to identify Sebald's representational content (the what of Sebald's texts) but to also be more attentive to his works' stylistic construction (the how). This is why I have been emphasizing the fact that Sebald's poetics of connection is a zoopoetics. If this is the case, then it means that some of the foundational elements of Sebald's prose style necessarily relies on a joining up of the human and the nonhuman. Thus the question of anthropocentrism in Sebald's work is rendered more important-and indeed more complicated-by attending to the author's zoopoetic translation of "terrible" and "scurrying" animality into a "method of procedure." In short, Sebald's texts destabilize the human's claims to narrative superiority, and thus propose what David Herman has recently theorized as a "narratology beyond the human" (2).

The question that follows, then, is how this relates to environmental thought and, more specifically, ecopoetics. Here we might turn to Jason Groves' ecopoetic analysis of *The Rings of Saturn*, in which Groves argues that *Rings* "explores a postnatural world of anthropogenic climate change, biological invasion, and mass extinction" (277). But as I have demonstrated throughout this chapter, such analyses must also attend to the translation of nonhuman forms that become registered within the stylistic makeup of the text itself. Further research, then, would ask how Sebald's poetics of connection not just translates the figure of the spider into literary style, but how other nonhuman lifeforms are connected together by literary forms.

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The Rabbits of Okunoshima: How Feral Rabbits Alter Space, Create Relationships, and Communicate with People and Each Other

When I was first invited to the *Text, Animals, Environments* conference, I assumed that I was invited by accident. What do I know about animal or environmental poetics? I am an anthropologist, not a literary scholar. But it turns out, after educating myself about zoopoetics and ecopoetics, that I might have something to contribute to the field. In particular, I thought that I might write on a topic that I have been working on for the past two years: a large group of feral rabbits living on an island off the southern coast of Japan's main island, Okunoshima.

If *poiesis* refers to *making*, for me, zoopoetics refers to the ability of other animals to make or create gestures, texts, and environments. As a cultural anthropologist who specializes in watching animals (primarily rabbits) in a variety of environments, and who attempts to translate what it is that these silent and seemingly inscrutable animals mean and say, I became intrigued by the idea that rabbits, like people, might possess the agency to alter and even *create* their environments in meaningful ways. Do these rabbits intentionally exploit the conditions under which they live in order to create the lives that best suit them? To me, these ideas are a given; but could they be shown using this particular case study? And finally, I would like to explore the (largely negative) environmental impact that the rabbits have had on the island, and the role that humans play in enabling that impact.

Okunoshima

In March of 2015, I took a group of students¹ on a research trip to Okunoshima, known to many as "Rabbit Island" or *Usagi Shima* (in Japanese), because of the large number of rabbits who live there. We wanted to use multi-species ethnography (cf. Kirksey and Helmreich 2010 and Hamilton and Taylor 2012) to explore how the rabbits' lives are affected by their

I would like to thank Cassandra Bugir, Kotoyo Hoshina, and Kanae "Koushi" Takahashi for their participation in this research.

contact with the tourists who visit the island, as well as why the tourists are drawn there in the first place.

Because of its relative isolation, after World War I, the Japanese government chose Okunoshima, which was (and is) uninhabited by people, as the location of a major poisonous gas factory. In total, 6,616 tons of mustard gas were produced on the island from 1929 until Japan's defeat in 1945.² Japanese white rabbits³ served as test subjects for the gas; some people think these rabbits were set free on the island to act as the proverbial canaries in a coal mine, alerting observers (through their deaths) to dangerous levels of gas on the island, while others think they were simply used as laboratory test subjects.

In the 1970s at the latest, Japanese visitors began visiting Okunoshima in order to learn about the island's grim history. Today, visitors tour the ruins of the factory and munitions, and visit the island's Poison Gas Museum. Tourists can also visit the island's hot springs and can camp or stay in a large hotel on the island (before the facilities were destroyed by the rabbits, visitors could also play golf and tennis). There are no permanent human residents on the island; even the workers take the ferry to the island to work each day.

The current rabbits are most likely 80th generation descendants of a group of eight rabbits who were abandoned on the island by a group of school children in the 1970s; it is unknown whether any of the rabbits who were gas test subjects survived the end of the war.

Three years ago, a video was uploaded to YouTube⁴ that shows a young tourist from Hong Kong being chased by a large herd of island rabbits, who were demanding food from her. This video quickly went viral, with more than two million people viewing it, and, according to our interviews, leading to countless people visiting Okunoshima to experience the rabbits first hand. This video's popularity followed on the heels of an earlier rise in Okunoshima's popularity during 2011, the Year of the Rabbit, when the island also experienced a great deal of media exposure. These two media events—the Year of the Rabbit and the YouTube video—are directly responsible for the conditions in which the rabbits now find themselves.

² The military went as far as erasing the island from unclassified maps in 1938 to protect its location, and much of the island's history is still shrouded in mystery today.

Which are similar to New Zealand whites, the dominant species used in animal research and testing in the west today.

https://www.youtube.com/watch?v=RdeX4NqvDZw (Web. 15 May 2018).

The media exposure led to a surge in visitors to Okunoshima, which itself caused a surge in the rabbit population—from about 400 five years ago to about 1000 today, based on our interviews with island staff and long-term visitors. Because the island (which lacks water and only has a four-Kilometer circumference) cannot comfortably support that many rabbits (and there are no natural predators), the rabbits have now resorted to begging for a living. Tourists today, which include large numbers of foreign visitors, come less frequently for the military history and more frequently for the rabbits—to feed and photograph them. Tourists journey to the island on a ferry from the mainland, weighed down with vegetables, fruits, and rabbit pellets, as well as bottled water for the dozens of plastic and metal bowls scattered around the island.

The Rabbits

The rabbits of Okunoshima,⁵ whose ancestors were abandoned on the island at least forty years ago (and perhaps as long as seventy years ago), have had to adapt to a remarkable existence—one that is equally constrained by the physical environment in which they find themselves as it is by the humans who interact with them on almost a daily basis. And at the same time, they have carved out a life for themselves by both altering their environment and manipulating humans to care for them.

These rabbits are not especially well suited to living on the island—they are, after all, a domesticated species, and their wild relatives come from a very different environment.⁶ Nor are they especially well suited to making their living by interacting with humans. They are a prey species and the relatively short amount of time that they have been domesticated⁷ has not eliminated the flight response from the species. In fact, during most of rabbits' history with humans, they lived not with humans, like dogs and cats, but outside of human homes, being kept, for the most part, for food and fur. It was only in the last 150 years that they have been kept and bred as pets.

The rabbits who live on Okunoshima are liminal animals—they live in an uneasy space between the domestic and the wild. They are not native

⁵ The rabbits are domesticated rabbits of the genus and species *Oryctalagus cumiculus*. This is the only domesticated species of Lagomorph on the planet.

⁶ The Iberian Peninsula and northwest Africa.

Rabbits were domesticated only 1500 years ago; they are one of the most recently domesticated of all domesticated species.

to Japan,⁸ and are not even wild. But they have had to utilize some of the behaviors that their wild European cousins use to survive–like digging elaborate burrows—as well as the species' famously prolific reproductive abilities⁹ which now serve them well. These rabbits build homes, create communities, defend territorial boundaries, find friends, mate, and rear babies—all without any human intervention.

But at the same time, because there is not enough food or water on the island to support all the rabbits, they have shed the cautious aspects of their nature in favor of an almost shocking level of aggressive friendliness—they are friendlier, in fact, than many pet rabbits. This is how they feed themselves—by begging.

In an article in *Humanimalia*, Aaron Moe notes that it is common for those within the field of ecocriticism to minimize the role that non-human animals play in interacting with humans. He writes, "[t]hese fundamental definitions in ecocriticism assume that the human is the one who engages the 'non-human,' thereby eclipsing how nonhuman animals also engage other beings and environments." He continues, "what if other animals also dwell on the earth, cultivating a sense of place?" (29). Okunoshima's rabbits have done this. They are the creative agents of their own lives, and not only determine the ways in which they live but have influenced the lives of humans around the world with their presence on the island and in the media.

Making

The rabbits of Okunoshima live lives that are both wild and non-wild. Like European wild rabbits, they dig their burrows into the mountain in the center of the island. The perimeter of the island, which is surrounded by a walking trail, is where the rabbits hustle for food during the daytime. At night, when the visitors are gone, most rabbits retreat to their burrows, where the mothers also rear their young. Some mothers, on the other hand, build their burrows in small hills along the well-trafficked walkways. These burrows are much more vulnerable to human disturbance, but also make it easier

The only indigenous Japanese rabbit, the Amami rabbit, lives on a different island and is currently threatened with extinction by two species that have been introduced to their habitat: cats and mongooses.

Rabbits are induced ovulators, meaning they ovulate in the presence of a male and are effectively receptive at all times. They can give birth to litters as large as twelve kits every twenty-eight days and can get pregnant the day they give birth.

for the mothers to beg for food while still protecting their young. Both wild and domesticated rabbits are crepuscular, which means they are most active at dawn and dusk. Island rabbits, on the other hand, have become largely diurnal, building their daily activities around the ferry schedule.

But the rabbits are not equally friendly, nor do they all behave the same. The rabbits have exploited the different ecological zones on the island and have created a number of different socio-zones which overlap those ecozones. For instance, the rabbits on the north and east sides of the island, as well as in the central mountain region, which are overgrown with tropical trees and shrubs and are less accessible to humans, are much shyer than those on the more accessible (and arid) sides of the island. Those living outside of the hotel and at the pier are the most friendly and aggressive, because of the easy access to guests.

European rabbits are a highly social species, preferring to spend the majority of their time in the company of their compatriots. They are non-vocalizing animals, so they use their bodies—the movements of their ears, tails, legs, and bodies, their tongues and teeth, and their scent glands—to communicate their needs and desires to others. They box, grunt, pee on each other and on their surroundings, climb, dig, and stand on two legs. All of these gestures both express their emotions and have an impact on others. Even the ways in which they sit or lie, often lightly touching the body of a friend, express their emotions. But on the island, many of these gestures are extended to people as well. What my students and I witnessed is a mutual understanding on the part of the human and lapine interactants: Both are aware, at least in part, of the "other's" motivations, and act accordingly. The rabbits know, for example that the visitors are not here to hurt them; they are here to feed them, while workers mostly ignore them.

Okinoshima's rabbits are social actors who are able to define and redefine the nature of their relationships, which they do each day, treating, for example, visitors to the island (who most likely have food) differently from workers, who do not. The rabbits listen for the sound of humans approaching their communities, and then hop towards them, stopping only at the edge of their territory to wait for them. They stand on their hind legs, climb on the visitors, and tug at their clothing. Even the babies are now completely unafraid of people and beg just like the adults (and are also subject to being injured or stolen). I am not unaware of the fact that there is a vast power differential between the rabbits and the humans; I just want to make clear the fact that the rabbits are active participants in these exchanges.

We think that there are approximately 1000 rabbits on the island, who live in thirty-nine separate colonies. ¹⁰ The colonies appear to be kinship-based, at least in part, with young rabbits of both sexes most likely staying in their natal communities. But we also found two groups that appeared to be breed-based, made up primarily of either angoras or silver martins—rabbits who were probably abandoned with their families in recent years and continued to live and reproduce together.

The rabbits, like their wild European cousins, are committed to their territories, and mark them by creating large feces piles, which are usually found in the middle of the daytime territory. While in the two most high-traffic areas, near the hotel and the ferry, there was some overlap between colonies, for the most part the rabbits do not stray far from their home territory. Clearly, the rabbits know not only their territories, but also which members make up their communities.

My students and I concluded, based on body condition and behavior, that the rabbits are overwhelmingly young, with the vast majority under two years old, and a large number are babies and pregnant females. This means that birth rates are very high, but so are mortality and morbidity, resulting in an overwhelmingly young population. According to a hotel employee, about fifteen rabbits die per day, and their bodies are picked up and disposed of by hotel staff so that visitors cannot see them. The rabbits were suffering from a variety of illnesses and injuries. Of the rabbits that we counted, twenty-six percent had visible injuries or illnesses, and the rabbits living near the hotel were both the sickest and the most injured, thanks to competition over food—approximately half of those rabbits were clearly unhealthy or hurt.

While the rabbits are dependent, at least in part, on the food brought by humans, this food also contributes to the short life spans of the rabbits. Much of the food is not species-appropriate, and because it comes in large quantities at some times (Saturdays during the summer, for example), and rarely at other times (winter, rainy days), the rabbits lack the consistency that is needed for their delicate digestive systems. Thus, one common cause of death is gastrointestinal stasis, because of the overload in unhealthy and inconsistent foods.

These numbers are based on our own counts; no other research has been conducted on the rabbits of Okunoshima.

This is similar to wild rabbits who, because of predation, only have a one-to-two-year life span. Domesticated rabbits who live in a home, on the other hand, can live to be ten to even fifteen years old.

Problems

Agustin Fuentes has written about what he calls "domesticatory practices" (124), referring, for example, to temple monkeys in Bali and the heavy amount of interaction that they have with humans there. He notes that monkeys who live in long-term zones of sympatry with humans end up sharing social and cultural relationships with those humans.

In the case of Okunoshima, the rabbits were already domesticated prior to their arrival on the island. I would suggest that these rabbits have experienced both a re-wilding, in which they re-learn the behaviors of their wild cousins, but also a re-domestication, in which they adapt themselves to their human visitors. But unlike Fuentes' monkeys, these rabbits are not living in a human space. Rather they are living in a wild space which they have shaped to their own needs-with burrows carved into the mountain, feces piles to mark territory, urine marking of their space and their comrades, and competition over who controls the most desirable territories-i.e., those with the most access to humans. They don't live at the borders of human society; they have created a new society to which humans have been drawn, through the consumption of media about Okunoshima. In the process, these rabbits, and the humans who inadvertently created the situation in which they live, have co-constituted a unique landscape and animal-scape. This space-inhabited primarily by animals, with humans as visitors-is a landscape occupied by rabbits who act autonomously, demanding what they need from the humans who travel across the world to give it to them.

Yet the rabbits are also aliens. They did not evolve on this island and have destroyed some of the natural vegetation there. Because of this, there are those who argue that the rabbits should be destroyed, or at the very least heavily controlled, in order to let the island go back to its "natural" state—which now includes the ruins of the gas plant, a hotel, a museum, a visitor center, a golf course, tennis courts, a campground, and paved roads and trails. These aliens are not living in a fully human space; but because this space has been claimed by Japan as a site of national remembrance, those needs are now in direct conflict with the needs of the rabbits—and the tourists who love them.

This is far from the first time that European rabbits, both prized and hated for their reproductive abilities, have been seen as an "invasive alien species," with all of the governmental and conservationist concern that this label carries. Whether these concerns are about the impact of the species

on biodiversity, native species, or the economic goals of the administrators, rabbits often pay the price after they have been introduced to a new area.

The most well-known example of "rabbit as invasive species" is the case of the European rabbits introduced to Australia in 1788 as food animals, and again in 1859, when they were released into the wild for hunting. As most people now know, the rabbits thrived in this new environment, and, as their population exploded, so did Australian farmers' concerns, as the rabbits ate millions of dollars worth of crops. The result has been the reclassification of rabbits from game to pest, as well as innumerable strategies—all violent—aimed at curtailing the animals' numbers. These include poisoning, trapping, shooting, warren ripping, and biological warfare. Luckily for the rabbits of Okunoshima, the Japanese government has not yet moved to take similar lethal actions against the rabbits.

This represents another way that the Okunoshima rabbits are liminal. There are at least two distinct and competing views of the rabbits: the government and their agents see them as wildlife, but do not consider them, as they do the other animals on the island, to be a part of "nature." Instead, these agents see the rabbits as something set apart from nature, and clearly not belonging in nature. They are, in anthropologist Mary Douglas' term, "matter out of place" (35). Because of this, the official government policy is that feeding the rabbits is discouraged and the hotel can no longer sell rabbit pellets for them. ¹³ On the other hand, the tourists see them as *kawaii*. ¹⁴ Part of what makes these rabbits kawaii, besides their obvious cuteness, is the fact that there are so many rabbits in one place. Unfortunately, while this contributes to their cuteness, the huge numbers are unsustainable on such a tiny island. And finally, the hotel management, tasked by the government with overseeing the island, is dismayed by the damage done to the island, but also understands the economic value of the rabbits, and uses pictures of the rabbits in all of their promotional materials, which draws in yet more tourists, and ultimately, drives up the number of rabbits.

But blaming the rabbits for the damage to the island obscures the human activities that both caused the problem and allow it to continue. It is tourism, after all, that caused the rabbit population to explode to such unsustainable

14 "Cute" in Japanese.

¹² Cf. Asgari et al. and Thomas et al. for examples of some of the methods used in recent years.

What this means is that tourists, who often do not know what rabbits should eat, continue to bring unhealthy food for them.

levels. And, ironically, if the rabbits are considered to be an alien species because they did not live on the island until they were first brought to it, and because of the environmental damage they have caused, they do not fulfill the final criteria usually mentioned by those concerned about alien species: economic damage. The work that the hotel staff must do to try to clean up their damage pales in comparison to the money that the tourists now bring in, largely because of the rabbits.

Finally, the rabbits themselves, most likely unaware of the tenuous nature of their existence, continue to do whatever they need to do to survive: build their homes, mate, raise their young, and teach that young how to find food and water in a rabbit-centered, but human-defined, world.

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A Darwinism of the Muck and Mire: Decomposing the Eco- and Zoopoetics of Stephen Collis' and Jordan Scott's *decomp*

It is interesting to contemplate a tangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent upon each other in so complex a manner, have all been produced by laws acting around us.... There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone circling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved. (Darwin, *Origin* 489-90)

Embedded in the coastal Western hemlock zone of British Columbia, Canada, a sodden copy of Charles Darwin's *On the Origin of Species* molders in its mound of worm castings and pine-needled mulch. Its pages are swollen, rotted, and voluptuously wet with the morning's rain; a mass of pulp the consistency of *papier mâché*. The text beads with a resinous surge of sap. By mid-day, browsing pill bugs stride across the manuscript's wind-ravaged edges. An arachnid stationed across the page temperately sews the striated patterns of its delicate filigree upon the faded print, capturing its prey beneath the casted shadows of the salal's leathery leaves. Months pass. The scaled pages chap and curl, transforming Darwin's open book into what begins to resemble a tract of cross-sectioned earth. In this petrichor plot of soil, the book has itself become Darwin's *entangled bank*: a furrow of damp earth clothed in vegetation and crawling with worms.

This intersection of text, worm, and dirt is the basis of Stephen Collis and Jordan Scott's *decomp* (2013), a photographic-poetic project created from the fragments of five weathered copies of Charles Darwin's *On the Origin of Species*. The worm-eaten and waterlogged pages of the *Origin*, which Collis and Scott have lodged in between granite boulders on mountaintops and buried beneath fermenting layers of vegetation for the duration of a calendar year, secure a vital partnership between living and dead organisms, past and

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present temporalities, and organic and inorganic elements. In turn, Collis and Scott's poetry collection presents an innovative re-modeling of Darwin's divergence diagram from the *Origin*, which exemplifies the "muck and mire" of evolutionary progress that I argue is characteristic not only of Darwin's natural scientific practice but of his theory of life itself. In the rich humus of diverse ecological habitats, Collis and Scott creatively experiment with what Darwin famously observed as the "grandeur" (Darwin, *Origin* 489) of life in the "entangled bank" (490).

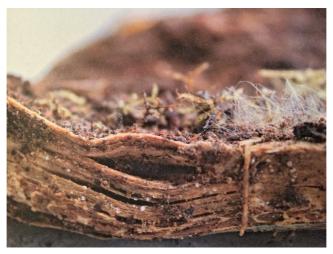


Fig. 1. A copy of the *Origin* in Tofino, British Columbia, Canada (*decomp* 109).

As a creative experiment that harnesses its power in and through natural systems (ecologies) and across a wide range of organisms (zoologies), Collis and Scott's collection is best described as a jointly ecopoetic and zoopoetic project. Furthermore, the synergy between text, worm, and dirt in Collis and Scott's poetic practice ought to be understood as reflective of an evolutionary process that is constituted by the continuous and creative composition and decomposition of the codes of organic life in their situated environments. Collis and Scott's reconstituted poetry responds to the biological and geological aspects of the *Origin* by re-reading and re-writing Darwin's theory of evolution as an expression of life that flows both between bodies and across milieus. By creatively de-composing the *Origin* according to the principles of natural selection and adaptation (inspired by the material-discursive encounters between hominid and annelid), Collis and Scott's decomp broadens

the scope of our understanding of Darwin's evolutionary theory and offers a new way of thinking about the intersection of species and ecologies in poetic and scientific texts.

Into the Muck and Mire

The internment and exhumation of Darwin's textual body (corpus) on the part of Collis and Scott invites a consideration of the more soiled and sedimentary facets of Darwinism. This interpretation of what I am calling a "Darwinism of the muck and mire" may seem peculiar, but its grittiness arguably imparts a more nuanced understanding of Darwin as a grounded thinker who drew insight from the organisms he observed (both still and stirring) at his fingertips. To be sure, Darwin's own "mucky" natural scientific practice and his equally sedimentary divergence diagram (commonly referred to as the "Tree of Life" model) from the *Origin* are central to Collis and Scott's eco-zoopoetics of decomposition.

We know that Darwin, due in part to his rigorous studies in geology (mainly in his correspondence with and readership of noted geologist Charles Lyell), had a keen interest in earth sciences in addition to zoological sciences. Both aboard the HMS Beagle and abroad, across the mountainous ridges of Patagonia and upon the shores of the Galapagos Islands, Darwin routinely conducted his research in the dirt. On the islands of Mauritius, Darwin trudged through the sludge that had subsided to the bottom of coral atolls. Upon the ledges of rock that overlooked the crashing waves of the Atlantic in the Cape Verde Archipelago, he pocketed rough-hewn fossils and other ancient bone fragments for his collections. Back at home (in his more venerable years), he groveled in the tellurian excavations of earthworms that labored beneath his famous "wormstone" at Down House and strode through the chalky grasslands and flowering orchids of Orchis Bank. 1 It was in the soil-the same terrestrial substance that encased fossils, rooted botanicals, and fed the intestinal canals of humble worms—that Darwin developed a revolutionary perspective of the "Tree of Life."

In his time, and even now, nearly 160 years later, Darwin's "Tree of Life" starkly counters the Aristotelian order of nature that had for centuries dictated the praxis of natural science. While Aristotle's exegesis of nature

Charles Darwin's great great-grandson Randal Keynes famously asserts that Orchis Bank, a hillock covered in foliage near Down House (within range of Darwin's daily walks), seems to encapsulate Darwin's thoughts on the descent of species (Costa 133).

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in *De Anima* presents life as a graduated and hierarchical ladder of celestial, human, and animal forms, Darwin's comprehensive evolutionary model of decay and rebirth in the "Tree of Life" accounts for the diverse proliferations of organic and inorganic matter in the natural historical record. As in the entangled bank passage of the *Origin*, bodies and milieus meld together seamlessly in the continuous and interminable circuit of evolution that is figured in the divergence diagram.

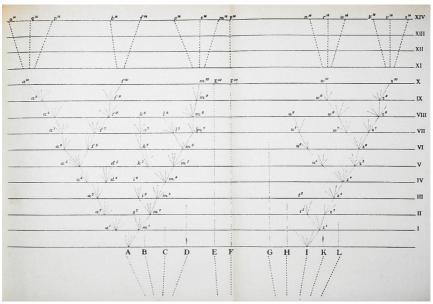


Fig. 2. "Darwin Divergence." 1859. Wikimedia Commons. Web. 23 Apr. 2018.

In addition to accounting for the muck and mire of Darwin's natural scientific practice, the "Tree of Life" model concretizes Darwin's biological and geological insights. The diagram (which is the only diagram to appear in the *Origin*; see fig. 2) charts the emergence and extinction of species lines alongside spatial and temporal coordinates that detail the specifics of classificatory divisions, along with the creative outspreading of species variation in geological time. Much like a cross-sectioned illustration of a tract of land that unearths layers of strata, the divergence diagram plots the evolution of species upon a horizontal map and in a kind of panoramic scope. Moreover, unlike the vertically-oriented *scala naturae* of Aristotelian philosophy, the diagram is distinctly underground, subterranean, and embedded in a post-

mortem past that is continuously (de)composing itself. In Darwin's visual model of life, all living and dead species and ecologies are imaginatively entwined and structurally unified: bodies merge, bio-historical processes spiral and unfurl, and environments inhabited by proliferating forms concomitantly cohere and dissemble.

As a figurative representation of Darwin's evolutionary theory, the divergence diagram is a visual schema that orders the scientific principles that guide the Origin. Such a diagram can be thought in relation to what Michel Foucault proposes in his analysis of the natural sciences as a fundamental aspect of "the order of things"; a gridded image that, as W. J. T. Mitchell argues, "holds the world together with 'figures of knowledge'" (11). The "Tree of Life" from the *Origin* is a representational model of Darwin's evolutionary theory that illustrates the junctions at which species lines converge within the geological record. Breaking from more traditional taxonomic models, the diagram's striated lines indicate that there is no "surface" that evolutionary progress breaks through; in short, that there are no completely perfected forms (e.g., the human) and no discernible teleological horizons. Unlike the majority of natural scientists of his time, who believed that a higher power had endowed all of life with a pre-determined trajectory and a concrete, singular origin—as per the Biblical story of creation—Darwin's theory of natural selection moves life outward, expansively, maneuvering farther and farther away from essential entities and categories. Similar to paleontological and geological models that detail layers of strata depicting millennia of earth history, Darwin's divergence diagram resiliently and yet indeterminately produces the very formations and structures that sustain life, while also recording, like the rings of a tree trunk, the ancestral and archival chapters of life's earliest expressions.

This representational model of Darwin's evolutionary theory, in addition to what we already know of Darwin's natural scientific practice, helps us to understand its "mucky" underpinnings, but also reveals the antecedent threads of vitalism that would later inspire Darwin's philosophical successors, Henri Bergson and Gilles Deleuze. While space does not allow for a full examination of a "Darwinism of the muck and mire" in Henri Bergson's *Creative Evolution* and Gilles Deleuze's and Félix Guattari's *A Thousand Plateaus* in this essay, I contend that the rhizomatic and vitalistic impulses of these thinkers can be correlated with Darwin's thinking on the interdependence of beings and milieus. As philosopher of science Georges Canguilhem asserts in his essay on the intellectual history of vitalism and the concept of milieu from the eighteenth to the twentieth century, Darwin's biological theory is

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grounded in the idea that organisms are indissoluble from their relationships with other species and environments (105). "Darwin is more closely related to the geographers," Canguilhem writes, "and we know how much he owed to his voyages and explorations. The milieu in which Darwin depicts the life of the living is a bio-geographical milieu" (106). I qualify Canguilhem's claim further in contending that Darwin includes the dead in this bio-geographical milieu. For Darwin, all of life is holistically integrated into an ensemble of living and long-dead species, as his later work on earthworms reveals.

The Turn of the Worm

If this analysis of a "Darwinism of the muck and mire" still seems like a stretch, consider that seasoned historian of science Stephen Jay Gould once wrote that the enduring importance of Darwin's sustained treatise on dirt and worms in The Formation of Vegetable Mould Through the Action of Worms, with Observations on Their Habits (1881) is due not only to its meticulous attention to detail but to Darwin's overarching interest in reconstructing evolutionary history as a slow process of accumulated development. Such a treatise should be recognized as the culmination of Darwin's thinking on the intersection of species and environments in his theory of life. Indeed, along with Darwin's other evolutionary research, which would argue for continued change over vast periods of time, Darwin's book on worms, according to Gould, "illustrate[s] the general method that had validated evolution as well. Nature's mills, like God's, grind both slowly and exceedingly small" (125). It is the final irony of Darwin's death one year after the publication of his treatise on worms, in fact, that "[Darwin] wished to be buried in the soil of his adopted village, where he would have made a final and corporeal gift to his beloved worms," but was given a State Funeral and laid within the "wellmortared floor of Westminster Abbey" (Gould 133). But the worm finds its way, Gould relates: "it will not be cheated, for there is no permanence in history, even for cathedrals" (133).

It is perhaps in part due to the irony of Darwin's death that Collis and Scott were motivated to bury the *Origin*. The dank and moldy book(s) that are the basis for *decomp* play on the remains of Darwin's own physical body in addition to his textual body, ruminating on the lasting legacy and post-humous (or post*humus*) impact of Darwin's thought on nature, and particularly on the trope of writing that lies embedded within the *Origin* itself. The clever correspondence between the idea of corpse and corpus is evident in the chapter created from the remains of a copy retrieved from Gabriola

Island's Coastal Douglas Fir Zone. At the heart of this chapter is a passage that dictates a dialogue between the poets and Roger, one of their colleagues. Roger inquires: "When are you picking up Darwin's rotting corpse from my yard? ... That fucking book you left here all year?" (89). In response, Collis and Scott write in scattered fragments drawn from lines of the book:

Really, private but abandoned land. Vacant. Islanded. For rain shadow. A resistance to dissaforestation, in common. The book somewhere in the underbrush; salal and Oregon grape; bodies somewhere in a vanishing and so the social goes the way botany demands; the way the nature of language draws us into its desiccated signs to portmanteau our designs (89).

In addition to the poets' examination of the textual body that decomposes in "the way botany demands," the passage is accompanied by a footnoted quotation from Darwin's book on worms, in which Darwin states that "all the vegetable mould over the whole country has passed many times through, and will again pass many times through, the intestinal canals of worms" (Formation 2). Deeming the worm responsible for the breakdown of textual bodies, Collis and Scott further proclaim that "we will be as worms" (89-90). As worms, the authors ingest and digest the word in the same way that the codes of DNA are modified and adapted into new formations. By the end of the chapter, the corpse/corpus of Darwin has become a site for an intensive reformation of matter and meaning.

By taking on the vermiform as a mode of writing that follows the principle of adaptation, Collis and Scott utilize the text as a way to establish a partnership between hominid and annelid. In so doing, decomp advances a distinctive commentary on 'nature writing' more broadly. As Collis and Scott explain in their interview with Jillian Harkness for The Puritan, their critique of ecopoetics is founded upon "decomposition-that very messy, broken, dissolute aspect of natural cycles" which was for them a "perfect 'trope to trope us out of tropes,' a method to take on writing about nature as a messy writing in/through nature" (n. pag.). Their invocation, we will be as worms, is critical to their ecopoetic practice: in taking on language again and again-much like a worm drawing in material through its intestinal canal-they endeavor to bring about a shift in poetic perspective. But as with Darwin's natural scientific practice, the project of decomp originates in the soil. As Collis and Scott describe later in the interview, writing poetry from the fragments of the Origin necessitates "a lowering of our own position/perspective ... (just like worms, we simply passed Darwin's decayed text again and again through our writing)." The fermenting understory of *decomp* is made possible by the

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horizontal re-orientation of the authors, who literally lay the book down in the dirt as an act of submission.

Along with the poets' adaptation of the corpse/corpus of Darwin that begins with abandoning the book to the weather and the worms, the commingling of text, worm, and dirt culminates in the natural selection of text to create new meaning. However, unlike other works of environmental literature that might demonstrate a limited encounter between the poet, the organism, and the environment (owed in large part to the predominance of the human observer and composer), the poetic project asks: What about nature's own iterations, resonances, and self-disclosures? Collis and Scott's attempt to moderately recuse themselves from the process of textual composition makes the compositions of the weather and the worms a central feature of the text's (un)making.

The process of the book's (de)composition is exemplified throughout the collection in a series of juxtaposed sections entitled "THE READABLE" and "THE GLOSS," in which the poets practice the principle of natural selection. In these sections, Collis and Scott enact a performative play on the shredded textual remnants of Origin that merge together to create new text. The problem of unreadable and precluded sequences is for the poets one of the characteristics of the story of natural selection and evolution. Following from this, the sections on "THE READABLE" and "THE GLOSS" toy with the idea of "species tracking sequences" (74). In the copy of the *Origin* from the Bunchgrass Zone (Nicola Lake), for example, the fragment "species" lays "amid long ponderosa pine needles" (17; see fig. 3). The poets write: "[A] species laying its body down on this bed to observe the decomposing limits of its semantic and genetic expression. Darwin is an eye amid graphed genera, seeing the web it is woven thereof. A matted scrap of printed material, shit, soil and leaf rot-all dried, bleached, and curled up at the small edges" (17). The act of reading, tracing sequences, and seeing the word itself in the photograph is of course complicated by the fray of rot, yet life's continued iterations are a part of the vitalist impulse of the poetry itself, which "partake[s] in selection and variation, wending toward the matter of th[e] book" (19). The matter of the poem, rife as it is with errant particles and remnants of text and sequence, is naturally selected by the poets. In this mode, the authors inquire: "What is readable, monstrous and unreadable? Everything is code, with which and within which we decompose" (19). A further case in point is Collis and Scott's meditation on the word, "Natural," which they refer to in "THE GLOSS" as the nomenclature of errancy (21). A natural history, according to *decomp*, is a matter of decomposing and recomposing genetic traces.



Fig. 3. "Species" fragment. Excerpt from decomp (14).

While acknowledging their own intervention in attempting to weave together the disintegrated pieces of the Origin, Collis and Scott's chapter on the Bunchgrass Zone nevertheless credits life with the power to galvanize new meaning through the intermingling of text, pine needles, the dried dung of cows, and the rough tufts of sage that make up Nicola Lake's scrubland. Yet what is notable about this section in particular is the interplay between materiality and discursivity. The "storied matter" that is forged between annelid and hominid in the collection can be understood as an articulation of what Serpil Opperman and Serenella Iovino describe as the "intra-action [as per Karen Barad's theory of agential matter] of human creativity and the narrative agency of matter" (8). Reading *decomp* as a material-discursive encounter between annelid and hominid, it becomes possible to understand how narrative is produced even outside the purview of the withdrawn poets. The annelid that disperses its trail of castings upon the text (as evidenced by the numerous photographs in the collection) both reads and re-writes the Origin. In this way, the eco-zoopoetics of decomposition in decomp is the product of an encounter between the vitality of dirt, the castings of worms, and the textual intervention of the vertebrate hominid.

Curiously, though, the natural decomposition of the copies of Darwin's text reaches a certain threshold where it becomes self-creative and autopoetic in its own right. At this point, the poets proclaim that there is "no poetry after decomposition, but a minute ecological process in which we have no

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part but intrusion" (92). With humor, and even some facetiousness, Collis and Scott write: "This is what we do. Not a whole lot" (74). Increasingly enveloped in organic matter and humus, the poets furthermore assert that "the book is buried and we cannot read a thing" (116), "the forest buries us" (119). It is at this juncture that the book acts like a kind of fossil, embedding its impressions in the ground (41) and becoming more integrated into the landscape, and further away from the intervention of the poets.

While this juncture might seem to mark the entropic collapse of human poiesis, what is intriguing about the *decomp* collection is that it reminds us of the continuity and contingency of evolutionary progress. Like Darwin's text, all organic things are susceptible to the fixed and fluid processes that break down the formations of language and being. The five weathered copies of the *Origin* that made up Collis and Scott's poetic project now sit in a cardboard banker's box in Stephen Collis' office, but their decomposition does not end with the publication of *decomp*. The book, in other words, is no less a fossil now that it sits in a box in Collis' office, and the calendar year imposed on the project is no match for the generativity of matter in deep time. The re-writing and re-reading, similarly, do not end with the book's printing, distribution, collection, or publication. Likewise, the death of Darwin, the resuscitation of his textual remains, and the remnants of Collis and Scott's five moldering copies are validation of the ongoing creativity of matter and language, which wilt and sprout in equal measure in the soil of evolutionary development.

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How to Disappear Completely: Poetics of Extinction in Max Frisch's Man in the Holocene

WHAT CAN LITERATURE DO? You see, this question is like a stray dog in Central Park that you can't get rid of, and now I am trying once again to throw just any word far away, into the surroundings, so that this dog leaves me alone and goes looking for it, and maybe does not come back—For example, the word: UTOPIA.¹ (Frisch, *Schwarzes Quadrat* 60)

How to tell a valley? According to a letter from August 1972 that is the question that was driving the construction of Max Frisch's *Man in the Holocene* published in 1979 by Suhrkamp in Germany (Weidermann 316). Only months later, an English translation—interrupted by ads and caricatures—was published in *The New Yorker*. In retrospect, the author and architect Frisch stated that he would have liked the short narrative to be his last text, his literary legacy (Frisch, *Entwürfe* 58), underlining the poetological significance of this rather experimental piece of writing. As it challenges the anthropocentric notion of the novel governing Frisch's earlier works, *Man in the Holocene* can be regarded as an anti-novel.

The urge to exhaust a geological formation poetically is the point of entry for the following analysis. Man in the Holocene reflects upon the possibilities and impossibilities of narration and its relation to the physical environment. In addition, the alpine surroundings provide the setting for encounters between animals (gnats, woodpeckers, and salamanders) and a moribund man.

[&]quot;WAS VERMAG LITERATUR? Sie sehen, die Frage ist wie im Central Park ein herrenloser Hund, den man nicht mehr loswird, und jetzt versuche ich es noch einmal, irgendein Wort weit in die Gegend zu werfen, damit dieser Hund mich verlässt und es sucht und vielleicht nicht zurückkommt—Zum Beispiel das Wort: UTOPIE." All following translations from the German are my own unless stated otherwise.

² Although Frisch's "late work" has not been extensively covered, I was able to draw from a number of inspiring analyses of *Man in the Holocene*, beginning with Kaiser's seminal reading. Sidestepping rather biographical and/or anthropocentric approaches that concentrate on the topics of aging and/or death (Goetz, Battiston, Rossbacher) as well as Schmenk's insightful focus on the archive, this chapter draws heavily on Braungart's contribution focusing on literature and geology (Braungart).

I am using this coincidence of habitat, human, and non-human lifeforms as an opportunity to work through the relationship between zoopoetics and ecopoetics. I propose to describe this relationship as a dialectic of erosive effects provoked by an ecopoetic perspective on the one hand, and prosopopoetic effects elicited by a zoopoetic perspective on the other. Both effects are related to three variants of extinction: ontological (the removal of a species from its metaphysical position), poetological (the erasure of lifeforms from the text), and ecological (the termination of a group of organisms).

To make this hypothesis plausible, the narrative is approached from two different angles in this chapter, with both paths converging at the end. The first part examines how environmental conditions co-shape the text. Erosion is established as a formative force that challenges integral images of lifeforms and stresses material and semiotic flux and transport. The second part examines how animals are involved in the text as makers that "give a mask" to intangible and incomprehensible environmental processes. Both text and environment are construed as co-productions that involve an abundance of agents—not only human and not only animal.

Ecopoetic Approach: Formative Forces

An "ecopoetic approach" is ecocritical insofar as it pertains to the "study of the relationship between literature and the physical environment" (Glotfelty viii). However, the focus in this first part is less on the "political" "commitment to environmentality" (Buell 11), or ecology for that matter, of either the text or its reading. It is also not so much on the "phenomenological" question "in what respects a poem may be a making ... of the dwelling-place" (Bate 75). Rather, it aims to explore the part of the organic and inorganic environment (including animals, fungi, plants, minerals, liquids etc.) in the making (poiesis) of a literary text by considering the "capacity of things ... to act as quasi agents or forces" and thus accounting for "vibrant materiality" (Bennett viii). How do environmental conditions co-shape literature as formative forces?

The title originally intended for *Man in the Holocene* was more laconic and less anthropocentric: *Climate* (Schmitz 143). Although the title was altered, a bracketed remark still situates the text in a warming world and argues that literature must adapt to changing environmental conditions by abandoning certain narrative aspects, namely the focus on humans as individuals and in society:

(Novels are no use at all on days like these, since they deal with people and their relationships with themselves and others, with fathers and mothers and daughters and sons, lovers, etc., with individual souls, usually unhappy ones, with society, etc., as if the place for these things were assured, the earth for all time earth, the sea level fixed for all time.) (Frisch, *Holocene* 39)

Already by the end of the 1970s,³ reading and writing "as if ... the 'sea level' [were] fixed for all time" had become impossible. This basic assumption condenses the negative narrative program the text launches against a climatologically naïve poetics of the novel. But it does not stop at being merely programmatic; the text is not only reflexive but also puts this program into experimental practice.

In the narrative, a meteorological anomaly (ceaseless rainfalls) and its potential effects (mud slides) convert a Ticino village and its alpine surroundings into dangerous terrain. Simultaneously, both knowledge and memory of the aged character Geiser, who is cut off from the rest of the world in his cabin, are affected and degrading. There it is: a twofold story of erosion; erosion of rock, and erosion of mind.⁴ Rather anthropocentric readings hinge on the observation that Geiser's fate is "mirrored" by his environment and go to work explicating the neat parable identified as the metaphoric core of the text (Stade). Yet, erosion is not only the subject or theme of the narrative; it also affects its form. *Man in the Holocene* is performative in the sense that it shows erosion at work as a literary and an epistemological practice; as a way to think, as a way to write, and as way to think writing. The imaginary end of a drowning world is developed as a problem of form, and erosion is established as a formative force both destructive and creative.

A lexicon article pasted into the text⁵ almost at the end of the book reminds us that the Latin verb *erodere* roughly translates to "eat away" (Frisch,

By the end of the 1970s, climatologists had not yet reached a consensus regarding the question whether the earth was going to cool down or to heat up in the future, although the voices predicting global warming were more numerous. The diagnosis that scientists in the 1970s predominantly championed the idea of a cooling world seems to be a myth (Peterson, Connolley, and Fleck). In 1979—the same year Frisch's narrative was published in German—the World Climate Conference held in Geneva, Switzerland, by the World Meteorological Organization highlighted the "all-pervading influence of climate on human society and on many fields of human activity and endeavor," cautiously warning that it "appears plausible that an increased amount of carbon dioxide in the atmosphere can contribute to a gradual warming of the lower atmosphere" while conceding that the "details are still poorly understood" (World Meteorological Association 1).

⁴ Schmenk speaks of "erosions of knowledge" ("Wissenserosionen"; 176).

On the archive as a prerequisite for Frisch's narrative and its erosion, cf. also Schmenk.

Holocene 97), "gnaw" or "nibble." Etymologically, "erosion" refers to a range of animal activities that became eponymic for an order of mammals, rodents (rodentia). Their natural technique of ingestion employs a single pair of sharp and constantly regenerating incisors as tools (aptly dubbed "chisel teeth"); and it shapes things by taking something away from them. As this transformation has often been considered harmful throughout (agri)cultural history, the verb can also mean "corrode," "stain," or "damage" in a figurative sense. The corresponding noun erosio is an expression used for cancer, thus pathologizing the negative implications of the metaphor. This connection is drawn upon in the narrative by frequently invoking Chestnut canker, a devastating disease caused by a species of fungi that wiped out 95% of the American chestnut population over the course of 8 years in the early 1900s and completely transformed the landscape. In 1948 a similar disease was diagnosed in Ticino (97).⁶ A note in the text remembers the extinction event in a laconic way, relating it to a catastrophic rise of the sea level and establishing a topographic axis of figural transport: "If the Arctic ice were to melt, New York would be under water, as would Europe, except for the Alps. /-Many chestnut trees are cankered" (77).

In the geological context, the term erosion designates the ablation of weathered rock and loose sediments, in other words: "the picking up or physical removal of rock particles by an agent such as ocean waves, running water, or glaciers" (Plummer, Carlson, and Hammersley 106). It is a process that carves out landscapes but also levels the land in the long run if it is not outbalanced by tectonic movement. It is a crucial phase of the so-called rock cycle that invokes deep-time geological processes putting human lifespans⁷ into perspective (51, 19, 201).

"Erosion is a slow process" (Frisch, *Holocene* 50). This is just one of many lapidary statements that structure the narrative. Its concise form (its lapidary style) can be traced to lapidary script, an early cultural technique of carving letters into marble or other stone. As the solid medium does not allow for a quick inscription process, words had to be chosen carefully

The ascomycete fungus *Cryphonedria parasitica* is considered the "causal agent of chestnut blight" and "was first observed in Europe in 1938 near Genova". From Italy it spread to the rest of Europe. "Today only the scattered stands of chestnuts in the Netherlands and the coppice stands in southern UK are free of the blight" (Robin and Heiniger 361).

As of 2015, the global average of human healthy life expectancy amounted to 63.1 years, ranging from 50.1 years in Sierra Leone to 83.8 years in Japan. The second highest number, 83.4 years, was indicated for Switzerland (World Health Organization 2017, Appendix B).

and the wording had to be succinct. Consequently, Hettinger's entry in the Historisches Wörterbuch der Rhetorik ("Historical Dictionary of Rhetoric") highlights the material base of writing in this respect: "Unlike laconism, lapidary style, according to its etymology, refers back to material aspects prior to its figurative semantic potential."8 In the same vein, Riley points to "the ways a literally material surface permits, or heavily influences, the style and then how that style profoundly inflects or dictates the meaning" (18). As Kittler put forward, style is a function of media. He couples laconism to the media-historical *a priori* of the telegraph, his scope being limited to a certain notion of technical media, although, in the case of Nietzsche, head and eye are considered "physiological" conditions of writing. However, the direct correlation of style and medium eliminates human interference: "Buffon's man, in any case, is dead." Admittedly, Man in the Holocene was not carved in stone but printed in a book (a magazine). However, the text evokes a way of writing that testifies to the poetic agency of non-human agents. Against this backdrop, the narrative is not only a piece of writing about geological processes; 10 the writing also takes a form that emerged in the process of rock carving, against the resistance of the material. From this perspective, rock takes part in the writing process.

At the beginning of the text, an intense description of the formative forces of erosion is quoted from a book dealing with the history of Ticino:

As sections of the earth's crust emerged above sea level, the natural forces of weathering and erosion at once began their work of shaping and displacing Frost and wind produced ridges and peaks on the raised masses of rock, while water and glaciers ate into the furrows and carved out the first valleys. This was no continuous process: it was spread over various periods, widely separated in time (40/18). ¹¹

^{8 &}quot;Anders als der Lakonismus rekurriert der L[apidarstil] entsprechend seiner Etymologie noch vor seinem figurativen Bedeutungspotential auf materiale Aspekte" (Hettinger, Lapidarstil 5: 28).

⁹ "Buffons Mensch jedenfalls ist tot" (Kittler, *Telegrammstil* 367). In publications translated to English, Kittler also hints at this argument (*Discourse* 190-91, *Gramophone* 200).

As Jussi Parikka put forward, "the archives of geology give, not a model, but the material for what would later be media and technology" (138).

The effect is even stronger in the German original: "Kaum aber waren diese Erdkrustenteile aus dem Meeresspiegel emporgetaucht, da setzten auch schon die natürlichen Kräfte der Verwitterung und der Erosion ein und begannen ihre Modellier- und Abtragungsarbeit. Während Fröste und Winde Bergkämme und Gipfel aus den emporgehobenen Felsmassen herausarbeiteten, verbissen sich Wasser und Gletscher in die Furchen und sägten erste Täler ein. Diese Arbeiten erfolgten aber nicht in einem Zuge, sondern in verschiedenen, zeitlich weit auseinander liegenden Perioden" (Frisch, Holozän 18-19).

Anthropomorphism, theriomorphism, and technomorphism mark the choice of verbs in this passage and place erosion into the larger context of a formative labor that is not unique to a particular species or even a particular realm of nature.

In an interview, Frisch likened his writings to the delicate sculptures of Alberto Giacometti: "The extreme slenderness of the figure establishes the surrounding space ... The slenderer the figure, the more space is inserted between itself and other figures—and the more life" (qtd. in Rossbacher 255). Like the sculptures of Giacometti, literature aims for life; but it can only grasp it *ex negativo* by not making too much space for human figures. Life is what takes place in the environment; it is not limited to character, biography or social relations. This is why in Frisch's narrative, the human so-called protagonist is thinned out. Geiser is named after a geological phenomenon (*geyser*). The name serves as a vehicle that relocates or reframes the character and casts him into the Icelandic landscape that is described as both hyperactive and devoid of humans in one of two longer continuous passages of the text:

Another volcano, a new one, has risen from the sea, an island of ash and basalt; its first inhabitants, when the ash cools, are birds that feed on fish; their excrement will form the beginning of an oasis in which human beings can live, until the next stream of lava smothers it all. Probably the fish will outlive us, and the birds. (Frisch, *Holocene* 58)

The description is followed by a snippet from an encyclopedia dealing with the lemma "Man." Here, minute letters spell out the singularity of the human. In contrast to the rhetorical energy flowing from the *hypotyposis* of geological and biological activity on the preceding pages, this assertion of human singularity seems ironic and tends to be reversed into its opposite.

To sum up, one erosive effect of the ecopoetics sustaining *Man in the Holocene* is the reframing of carving, not as a destructive but as a creative process that allows for a circumscription of life by taking the figure of the human out of the picture. Another erosive effect is the leveling of a hierarchic order of agents; mineral, fungal, vegetal, animal, and human makers are assembled on the same plane by establishing an equivalence and structural analogy of formative forces. However, this comes at a price: first, the erasure of differences between particular poetic practices that converge into one anonymous formative force and, second, indifference towards the ontological, poetological, and actual extinction of mankind (97).

Zoopoetic Approach: Particular Practices

The severe weather that re-shapes the valley and is extrapolated to a climatic disaster of global extent is announced by animal messengers. The following analysis of animals as reflexive figures of poetological and epistemological import is informed by two theoretical efforts: first, Aaron Moe's introduction of zoopoetics as a theory that recognizes nonhuman animals as makers that are involved in the production of literature through their specific "vocalizations" (2) and the "material gestures" that have a "bodily" dimension (4); and second, Kári Driscoll's notion of zoopoetics as the reciprocal constitution of animals and language. This includes "zoopoiesis," "the creation of the animal as much as the creation by means of the animal" (223).

The first animals encountered in the narrative are a cloud of gnats.¹³ These parasitic insects appear less as symbolic animals emblematic of mythical catastrophes¹⁴ and more as diegetic animals,¹⁵ a living and blood-sucking multitude.

It started on the Thursday of the previous week, when it was still possible to sit out in the open; the weather was sultry, as always before a thunderstorm the gnats biting through one's socks, no summer lightning—it just felt uncomfortable (Frisch, *Holocene* 38).

The layers or sediments of meaning that have accumulated over the course of cultural history around the swarming "pest" are waved away with only one laconic comment: "it just felt uncomfortable." Attention is directed away from implications and connotation and drawn towards the body's allergic reaction

This constellation could easily be extended to include the environment as a third constituent, interacting both with animals and language.

Eva Horn sees swarms as the promise as well as the threat of a collective without a center (8). She highlights their involvement in transmissions (*Übertragungen*), especially from non-human to human animals (10) and points out their adaptability to environmental conditions (11) as well as their capacity to figure vital complexity: "The swarm is a figure of the complexity and uncontrollability of the living" ("Der Schwarm figuriert die Komplexität und Unkontrollierbarkeit des Lebendigen"; 20).

Like the third plague inflicted on Egypt: "and gnats came on humans and animals alike; all the dust of the earth turned into gnats throughout the whole land of Egypt" (Bible Exod. 8,17).

In his pivotal account of animals in literature, Roland Borgards distinguishes between semiotic animals (appearing as carriers of meaning) and diegetic animals (living organisms populating the narrated world). This distinction should be taken as a heuristic means providing orientation in the vast realm of poetic fauna, not as a definitive categorization (89-93).

to the bites instead, to the itch that marks the "contact zone" (Haraway 4); or better yet: the zone of an *overlapping* of man and animal where the gnats' proboscis penetrates first the second skin (the socks) and then the first (the epidermis) injecting a coagulant and extracting blood from Geiser's veins. Proteins and iron dissolved in Geiser's blood will assist in the generation of eggs. The gnats' lives are entangled with their host's life through assisted procreation. What is more, the assistance is mutual. Bite by bite, bit by bit, the image of Geiser's body disintegrates; already in the very beginning he is disappearing and it is the animals that assist him in his disappearance by perforating and penetrating the boundary between man and animal.

As Max Frisch put forward in his lectures on poetics, one of the main purposes of literature is to cause irritation; irritation owed to the simple fact that there is still something else, an alternative to the status quo (*Schwarzes Quadrat* 71); some thing or other. Against this backdrop, the gnats can be read as poetological figures, material tropes that speak to the makings and workings of the text. For Frisch, literature must bite like a gnat. Our irritation in the process of reading reminds us that there is something else, that the text is not only about an individual life that is already fading (Geiser's), about the ailments of an aging author (Frisch), or about mankind, but also about what else is out there, besides humans, be it as small as an insect.

Whereas the gnat's presence is fleshed out, birds are introduced *in absentia.*¹⁶ There is "[n]ot a bird on the grounds" (Frisch, *Holocene* 38). Negation turns the birds into signifiers, depriving them of their diegetic lives, and yet links them to the insects on the syntagmatic axis, and the swarms band together. On the page, the birds immediately follow the gnats; and, in fact, the birds carry on gnats' work by eroding the human-animal divide:

One summer the woodpeckers got a sudden idea, as it were: they stopped pecking the bark of the old chestnut tree and started on the windowpanes; more and more of them came, all seemingly obsessed by glass. Not even strips of glittering foil frightened them off for long. It became a real nuisance. If one went to the window to shoo them away, they at once moved to another and one could not be at every window, clapping one's hands. (57)

The absence of birds brings to mind an ecocritical classic: Rachel Carson's *Silent Spring*: "There was a strange stillness. The birds, for example—where had they gone? Many people spoke of them, puzzled and disturbed. The feeding stations in the backyards were deserted. The few birds seen anywhere were moribund; they trembled violently and could not fly. It was a spring without voices. On the mornings that had once throbbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices there was now no sound; only silence lay over the fields and woods and marsh" (Carson 2).

The disturbing descent of beaked beasts pecking on the panes constitutes another case of "bio-erosion." Like chestnut blight the woodpeckers first destroy the bark of the trees, acting as vivid memento of the extinction event. Assuming the uncanny air of the birds in Hitchcock's 1963 movie, the whole flock descends on the windows, pecking away at the walls Geiser had chosen as his third skin, in order to cut himself off from the valley and the world. The breaking down of the architectural structure is prefigured in the woodpeckers' physique. Through evolutionary history practice in pecking formed their beak into "a specialized chisel effective in cutting into a tree" (Yoon and Park 3). The wielding of this corporeal tool against the house, constitutes a "material gesture" (Moe 4) that has poetological implications. Frisch, speaking both as author and architect, addresses this materiality in his metaphorical approach to poetic language:

Language is like a chisel that knocks away everything that is not secret; and to tell something always means to delete.... One tells what is not life itself. One tells it for life's sake. Language works like the sculptor when he wields the chisel, driving forth the emptiness, the expressible, against the secret, the living. (Frisch, Schwarzes Quadrat 23)¹⁹

The beaks of the woodpeckers can be read as so many chisels that break down the barriers between nature and culture; that break down the "bark" of the human subject and open the narrative towards the environment. The walls of the 'house of language' crumble like the pagoda of crispbread that Geiser tries to erect in the beginning of the narrative (38).

At one point, Geiser encounters an amphibian: "A spotted salamander in the bathroom—" (Frisch, *Schwarzes Quadrat* 59). It is trapped in the tub and the old man starts to experiment on it: "When Geiser prods it gently with the toe of his shoe, it just kicks out with all four legs. Quite automatically.

The representation of the woodpeckers avoids the genre of species elegy described by Ursula Heise who uses the ivory-billed woodpecker as an example to point out the reinterpretation of biological facts as an expression of cultural trauma (the clearing of the US-American south) (Heise 56-60).

Maybe that is why the text copes with the avian intervention by reluctantly granting them the capacity to be inventive. This attribution of a rhetorical category (*inventio* being one of the five *officia oratoris*) vaguely gestures at an animal *poiesis*.

[&]quot;[D]ie Sprache ist wie ein Meißel, der alles weghaut, was nicht Geheimnis ist; und alles Sagen bedeutet ein Entfernen.... Man sagt, was nicht das Leben ist. Man sagt es um des Lebens willen. Wie der Bildhauer, wenn er den Meißel führt, arbeitet die Sprache, indem sie die Leere, das Sagbare, vortreibt gegen das Geheimnis, gegen das Lebendige" (Frisch, Schwarzes Quadrat 23).

Then it goes quiet again, its skin armored, black with yellow spots, and slimy" (59). This account of the reaction evokes the persistent Cartesian doctrine of the animal machine that reinforces a binary opposition between humans and animals (Kling; Kalof and Fitzgerald 59). But although Geiser refrains from touching the Salamander, he does not stop at this conception. He dares to take a closer look:

When one examines a spotted salamander through a magnifying glass, it looks like a monster: a dinosaur.... It crawls doggedly in a direction in which it will never make any progress. Suddenly it lies still again, its head raised. One can see its pulse beating. An awful dullness in all limbs. (Frisch, *Holocene* 64)

The amphibian is related to the dinosaurs that frequently show up throughout the text. Not only a metaphorical connection is established but also a metonymical connection is suggested; and it is founded in evolutionary theory. Geiser draws up a list of dinosaur species (86) and several drawings and pieces of information about them are pasted in the text. This fascination culminates in a minimal zoography of the most terrible of the terrible saurians:

It was, however, with the development of the amazing Tyrannosaurus rex that the dinosaurs reached their apex; no more terrible and powerful carnivore has ever arisen to terrorize the earth.... Although these true tyrants among the dinosaurs had nothing to fear anywhere on earth, their reign was of short duration. They first emerged in the Late Cretaceous and vanished—along with all the other dinosaurs—at the end of this period, when they were suddenly and inexplicably wiped out. (66)

The appearance of dinosaurs in the text centers on the issue of their disappearance. The text digresses from the biographical time-scale and focuses on events that constitute breaks in deep evolutionary time. When Geiser turns to examining himself, he discovers a physiognomic resemblance that implies another analogy: "When Geiser looks in the mirror again to see his face, he knows that the name of his daughter in Basel is Corinne ... even if Geiser does look like a newt (89). Following the established chain of signifiers, Geiser also looks like a dinosaur. The vivid description of the tyranny of the reptile kings is no longer only an anthropomorphic account

Rossbacher points out that even the direct negation ("Geiser is not a newt" 90) cannot help but posit first what it later denies, thus always nurturing the suspicion that Geiser could, in fact, be a newt (256-57); he draws on Schmitz who highlights the fascination and the perceived threat involved in Frisch's negation (24, fn.).

of the animal realm but starts to operate both ways: it is also a theriomorphic representation of the despotic behavior of "man" (towards "nature"). The enforced question of whether or not "man" has become the *Tyrannosaurus rex* of the present age is seconded by the emphasis of the tyrant's mortality. Does he not deserve to be overthrown?

Geiser's look in the mirror occurs at a time when he has become frail and endangered; he scans his face for symptoms of apoplexy. The magnifying glass becomes the device and the emblem of another look that does not focus on individual lifeforms. The salamander's colorful spots resemble the fragments and snippets collaged in *Man in the Holocene*. They put things in relation. Studying animals, examining mirror images, and readings texts are different ways to relate things (to one another): "And, if necessary, one can always use the magnifying glass for reading" (Frisch, *Holocene* 66). The salamander's body is covered in warning signs for potential predators. This example of animal rhetoric is mimicked by Frisch who aims at warning with the help of his writings:

I want to posit myself as the amateur who—through sensitivity, maybe even through a seismographic one that registers earthquakes when the others have not noticed anything yet,...—represents, warns; Cassandra" (Frisch, Dindo, and Pilliod).

To sum up, one prosopopoetic effect²¹ of the zoopoetics sustaining *Man in the Holocene* is the catachresis²² of infinitely complex environmental processes. Animals embody particular poetic practices and thus break down the anony-

In the rhetorical tradition, prosopopoiia is a figure that gives a face or a voice to things, abstract notions, the dead or the absent. Bettina Menke established it as the master-trope for readability. Whereas it masks (Gr. prosopon = mask) the lack of a face as a guaranty for readability, it simultaneously states that there has been no face before (137). From this lack, fictions emerge (144). Menke also teases out the tension between the catachrestic and the anthropomorphic dimension of prosopopoiia. Against the "false realism" of the anthropomorphic tendency, the figure situates language in-between the human and the non-human (173). This is aptly exemplified with recourse to the romantic fascination for sounding stones (161) and petrified texts (198).

According to Max Black, *catachresis* is "the use of a word in some new sense in order to remedy a gap in the vocabulary," "the putting of new senses into old words" (33). Departing from this view, *catachresis* is a productive operation in the sense that it embeds "system of things" (44) in discourse that could hardly be addressed otherwise as there is no way to express them "literally." Insofar as metaphors produce an irreducible cognitive surplus (46), *catachresis* can be understood as an aspect of metaphor. In Menke's words, *catachresis* puts a name to something that did not have a name before (143). It exposes the figurativity and arbitrariness of the insertion of the signifier and therefore generates fictions (144).

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mous formative force. Another effect is the embedding and inscription of humans in the environment via anthropomorphism. However, this translation runs the risk of anthropocentrism, of making "man" the measure of all things, focusing on the actual threat of ecological extinction and avoiding the ontological and poetological extinction of "man."

The Dialectic of Erosive and Prosopopoetic Effects

In this last part, I want to sketch the relationship of ecopoetics and zoopoetics as a dialectical one. In my view, both critical approaches inform each other; each occupying a blind spot of the other. Rather than conflicting, they are complementary and each can be regarded as a critique of the other.

The ecopoetic approach has erosive effects that work against an assumed singularity of "man" as it puts different poetic agents and different forms of *poiesis* on the same level. As it allows for the recognition of a universal formative force (like erosion) that is at work both in texts and in their surroundings, human productions are not exceptional. The notion of poetics is opened and extended to encompass human, animal, vegetal, fungal, mineral, and other makings. The equivalence of material gestures works as an antidote to poetological and ontological anthropocentrism. Within a frame of reference that is stretched to include deep-time evolutionary and geological poetic processes, the lifetime of human individuals, as well as the period of human existence on earth, lose weight as privileged measures. The resulting skepticism with regard to human singularity makes for an important lesson in the so-called "Anthropocene" (Crutzen and Stoermer), when a global formative force is assigned to *Homo sapiens*. However, the erosion of differences can be regarded as problematic because, in the abstract picture produced by the ecopoetic approach, the particular practices that change the planet and

This view offers the possibility to conceive of Frisch's narrative as the fiction resulting from catachrestic focal points.

In the famous last passage of *The Order of Things*, Foucault frames the epistemic break that causes the erasure of "man" as an effect of marine erosion: "Taking a relatively short chronological sample within a restricted geographical area—European culture since the sixteenth century—one can be certain that man is a recent invention within it. In fact, among all the mutations that have affected the knowledge of things ... only one, that which began a century and a half ago and is now perhaps drawing to a close, has made it possible for the figure of man to appear. And that appearance was ... the effect of a change in the fundamental arrangements of knowledge.... If those arrangements were to disappear as they appeared ... then one can certainly wager that man would be erased, like a face drawn in sand at the edge of the sea" (421-22).

the particular vulnerabilities to these changes of certain species, populations, or individuals (or classes of human society!) tend to be overlooked.

The zoopoetic approach has a prosopopoetic effect giving a "face"—or rather a "mask"—to abstract processes, countering the lack in depth of focus. That "mask" is animal (say a salamander, a cloud of gnats, or a flock of woodpeckers). Through attentiveness to the diverse animal bodies that shape the environment, the zoopoetics approach can account for the particularities within the spectrum of formative activities. Focusing on the differences between concrete agents, this approach allows for representation and critical reflection. In doing so, it also shows that ecology is not only an anonymous flow of matter and energy. However, this approach tends to privilege specific makers that have a familiar face, and runs the risk of losing sight of the environment makers are embedded in. Humans can only speak, think and approach literature as humans. The awareness of this ineluctable epistemological anthropomorphism inherent in the concept of zoopoetics (and, for that matter, other concepts) re-inscribes human lifeforms and their best interest: that the extinction of *Homo sapiens* remains merely figurative. From an ecopoetic perspective, the disappearance of humans does not significantly alter the picture.

According to *Man in the Holocene*, texts and environments are co-productions of manifold agents; these agents are certainly not only human, and they are not only animal. The narrative explores the possibilities of a non-human making by presenting a fringed section from the entangled natural and cultural history of a valley, partly refracted through the eyes of a representative of a species on the brink of extinction.

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The Traces Animals Leave: A Zoopoetic Study of Rick Bass' "Antlers"

In The Song of the Earth, Jonathan Bate defines ecopoetics as the study of the manner in which poiesis offers new models of inhabiting the world and can help restore the links between the human and the nonhuman worlds: "ecopoetics asks in what respects a poem may be a making (Greek poiesis) of the dwelling-place (the prefix eco- is derived from Greek oikos, 'the home or place of dwelling')" (76). According to Bate, poetry, and more generally literature, can bring us back to our dwelling-place, the earth, because it is endowed with the ability to "echo" nature's rhythms and movements. Like ecopoetics, zoopoetics approaches literature as a medium that explores the different nonhuman agentive forms. This critical practice analyzes how poetic texts reproduce animals' modes of being and show that animals inhabit the world poetically. As Aaron Moe argues: "[N]onhuman animals (zoion) are makers (poiesis), and they have agency in that making. The etymology [of zoopoetics] also suggests that when a poet undergoes the making process of poiesis in harmony with the gestures and vocalizations of nonhuman animals, a multispecies event occurs. It is a co-making. A joint venture" (2). Zoopoetics investigates the way in which attention to animals' creative modes of living reveals that poetic creation is not a purely human affair-animals participate in the making and the shaping of poetry—and that the preservation of nonhuman ways of dwelling on the earth is essential for humans. A zoopoetic study of the literary texts that highlights animals' creative modes of living disclose the ethical and sometimes activist dimension of such texts. Indeed, by exposing the agency of animals through poetic devices, writers encourage us to acknowledge the diversity and the value of the animals' ways of being, and thus to protect them.

In his texts, North American writer and eco-activist Rick Bass (*1958) pays close attention to the modes of being of animals and argues that they are essential to the survival of humankind:

[The writer and anthropologist Richard] Nelson speaks of the seasonal comings and goings of life—the invisible trails left by the passages of the migrations of the animals—not just in Alaska, but all across the continent—as a pulse, a tracing, "a luminous sheath" of passages, emotions, and ways of being that conspires to wrap

this country in its own unique spirit: the migration of cranes and geese overlapping paths and trails of the buffalo and caribou, the wanderings of wolves, and the waxing and waning of human cultures, human dreams and desires, across the land. No, you can't eat this—but neither can we survive without it—this spirit of place—and it is deep in danger. (Book of Yaak 64)

As an activist, Bass underlines the vital importance of acknowledging and preserving the various modes animals have of inhabiting the world. As a writer, he uses fiction as a tool to present the diversity of human and nonhuman ways of living. In his short stories, Bass shows that the lives, movements, and rhythms of humans and animals are not only "overlapping" but also influencing one another.

This essential interlacing of human and nonhuman ways of living appears most blatantly in Bass' short story, "Antlers" (Loyal Mountains). Indeed, "Antlers" illustrates the manner in which the ways of being of animals shape the lives of the characters and the very substance of writing. The story takes place in a remote valley in the Pacific Northwest. Even though the inhabitants and the wild animals of this valley coexist, there is no scene of any human-animal encounter. In "Antlers," as in many of Bass' short stories, the descriptions of animals are often fragmentary or incomplete. If the animals in the story only come into view indirectly, by anamorphoses and synecdoches, it is mostly because they leave numerous traces behind them: imprints, migration trails, and drops of blood. The presence of traces draws attention to one of the most distinctive characteristics of wild animals: their elusiveness and their avoidance of humans. Traces also contribute to Bass' artistic and ethical project. Indeed, rather than try to intellectually and physically capture animals, Bass' aim is to adjust his writing to the animals' modes of inhabiting the world.

Through the presence of animal traces in his writing, Bass expresses his wish to pay attention to other ways of being, perceiving, and inhabiting the world—ways that can be regarded as an expression of animal "styles." Significantly enough, the narrator of the short story "Two Deer" evokes the "styles" of predators: "Coyotes use the same prey as wolves but use a different style" (*Hermit's Story* 165). In an essay entitled *Styles*, Marielle Macé argues that each animal species can be considered a specific "style" (100). As literature is particularly suited for identifying and reproducing other styles, Macé remarks, it is endowed with the ethical task of showing the necessity of representing and defending the diversity of styles that constitutes the world. Although it is considered the defining feature of humanity, language, and especially poetry, remains the medium through which we engage in,

and with, the world. Paradoxically, it amounts to the best means we have to render the silent and unconscious specificity of animal styles.

This paper will apply zoopoetics to the study of "Antlers." By investigating the styles of wild animals represented in this short story, this essay will explore how Rick Bass discloses the urgent necessity of renewing our relationships to the nonhuman world. In "Antlers," the traces animals leave show Bass questioning the representation of the nonhuman world and allowing animals to directly influence his text. Far from trying to penetrate the worlds of animals, Bass adopts a respectful and humble approach to their otherness. It is precisely by maintaining a physical as well as a descriptive distance from animals that he intimates that they are endowed with the power to influence his writing.

I will first explore the way in which the fragmentary descriptions of wild animals evoke the brevity of their appearances. The descriptive distance this strategy implies not only reflects the physical distance between humans and animals; it also allows the author to suggest that the world of humans and the worlds of animals should remain separate. I will then investigate how, in the context of the hunt, the physical distance between Randy, a hunter, and his prey testifies to a form of reciprocal respect between the character and the animal. However, the writer's project of paying attention to other modes of being also contributes to renewing bonds between men. Finally, I will examine how Bass' fiction shows that the overlapping of animal and human lives favors the creation of a sense of community.

In *The Animal Side*, French philosopher Jean-Christophe Bailly has contributed to renewing the motif of the human-animal encounter in animal studies. In the opening scene of this text, he describes his encounter with a deer on a night road. He explains that this striking experience has allowed him to be in contact with a seemingly impenetrable world: "It was as if with my eyes, in that instant, for the duration of that instant, I had touched some part of the animal world. Touched, yes, touched with my eyes, despite the impossibility" (2). With this anecdote, Bailly presents the extent of the common grounds between humans and animals without negating the separation between the two worlds. First, he emphasizes the distance between the human and the animal worlds (the deer quickly disappears into the woods). And yet, in this brief and intense experience, he has a glimpse of something he was not meant to see: He witnesses another way of being in the world without fully penetrating it. In other words, this anecdote allows Bailly to show that it is by maintaining the physical and ontological distance that separates us from the worlds of animals that we can create a respectful relationship with them, and ultimately rethink our relation to the nonhuman environment. Indeed, acknowledging the fact that there are other ways of inhabiting the world enables us to see the natural world as a shared habitat between humans and animals in which each life has a value in itself.

Similarly, when Rick Bass' narrators and characters encounter an animal, they maintain a respectful distance from them. In "Antlers," for example, Bass illustrates the ways in which humans and animals share a territory that they nevertheless inhabit differently. The human inhabitants and the wild animals of this "cold, blue valley" (Loyal Mountains 67) coexist but remain separate. In Bass' fiction, the recurrent motif of birds flying away or of predators remaining in the dark woods, where humans cannot reach them, shows that animals remain indifferent to the characters' feelings. When ducks and deer appear to the character Suzie and the narrator, the latter do not interfere with the former. The short descriptions mirror the elusive dimension of wild animals and testify to the characters' wish to keep animals at a respectful distance. Throughout the story, only a few descriptive fragments briefly interrupt the course of the narrative-"Ducks flew down the river" (73), "We heard owls as we walked along the river, and saw lots of deer" (74). The brief appearances of animals have no influence on the course of the story. These fragments function as moments of recreation in which the characters temporarily forget their suffering and observe animals at a distance. Moreover, the descriptions of wild animals often appear at the end of a paragraph. But the narrator does not use nature as a mirror of human feelings. Even though he dwells on Suzie's emotional pain when she is in the wilderness—"She was frightened. Fright, sometimes plain fright, even more than terror, is every bit as bad as pain, and maybe worse" (73)—he does not resort to pathetic fallacy. The presence of animals is, in itself, enough to provide humans with a sense of relief.

But animals are not always elusive. Sometimes, Bass' narrators and characters can observe them minutely:

There was still plenty of daylight left, and we'd watch large herds of deer, their antlers still covered with summer velvet, wade into the cool shadows of the river to bathe, like ladies. They made delicate splashing sounds as they stepped into the current. Water fell from their muzzles when they lifted their heads from drinking. As the sun moved lower, their bodies grew increasingly indistinct, blurring into shadows. (70)

In this excerpt, the narrator relies on another descriptive strategy. Rather than opting for a short and seemingly objective description, the narrator re-

sorts to a depiction reminiscent of ekphrasis. Indeed, it seems that the narrator describes a painting he has seen, rather than a scene he has witnessed. The carefully detailed description of deer wading in water and the comparison-"like ladies"—evoke the pictorial motif of Bathers, as depicted on canvas, for instance, by Courbet, Degas, and Picasso. The comparison between naked women enjoying a bath and deer cavorting in a river suggests that the viewer is given a rare and intimate scene and is simultaneously excluded from it. In this respect, the descriptive strategy contributes to reinforcing the separation between humans and animals. Nevertheless, the use of ekphrasis also intimates that the characters and the deer share a sensorial experience. According to Georges Didi-Huberman, gazing at a work of art is a synesthetic experience: "Seeing can only be thought and felt as an experience of touch" (11). The viewer is not a distant observer; he can actually feel the object he is looking at. In Bass' text, the detailed descriptions of the animals' movements-"wade," "splashing sounds," "they lifted their heads"-and the alliteration—"splashing sounds as they stepped"—disclose the physical, even tactile, aspect of this visual experience. Bass manages to recreate the modes of being of animals in the very substance of his writing. He thus reveals that poetic language can coincide with the ways in which animals inhabit the world and can contribute to restoring a link between humans and animals.

The hunt is a central theme in Bass' writing. Nevertheless, in "Antlers," as in many other short stories, the motif of the hunt does not so much allude to man's domination of the nonhuman world as it is presented as a respectful way to approach animals. Some of Bass' characters may be trophy hunters—in "Choteau" (*Watch*) and in "Two Deer" (*Hermit's Story*) for instance—but most of them consider hunting a means of gaining access to the worlds of animals and establishing a fair relationship with them. For instance, the numerous hunters of "Antlers" believe that they should respect the animals they kill: "If you use the meat, and apologize to the spirit right before you do it and right after, if you give thanks, it's all right" (71). Far from celebrating man's power over nature, Bass' hunting stories show how animals inhabit the woods and how they perceive their surroundings.

In Clues, Myths, and the Historical Method, Carlo Ginzburg studies the origins of the "evidential paradigm," an epistemological method consisting of

¹ The comparison between animals and bathers also appears in *The Black Rhinos of Namibia*: "I try to gauge the age and physical condition of each rhino. There are six of them now, all different sizes and conditions. I wish Mike were here to tell me what I'm seeing, and I'm reminded, strangely, of Degas' painting *The Bathers*" (247-48).

reading almost undetectable clues in order to have access to an "otherwise unattainable reality" (102). Ginzburg suggests that hunters were the first to use this inductive system:

In the course of countless chases [the hunter] learned to reconstruct the shapes and movements of his invisible prey from tracks on the ground, broken branches, excrement, tufts of hair, entangled feathers, stagnating odors. He learned to sniff out, record, interpret, and classify such infinitesimal traces as trails of spittle. He learned how to execute complex mental operations with lightning speed, in the depth of a forest or in a prairie with its hidden dangers. (102)

Hunters can identify and interpret the traces of their prey in order to not only reconstruct the animals' physical portraits and the stories of their passages, but also to anticipate their movements.² In "Antlers," Randy is an experienced hunter who, unlike the narrator, manages to read the most imperceptible drops of blood of the elk he has shot with his bow:

After two hours we got up and began to follow the blood trail. There wasn't much of it at first, just a drop or two in the dry leaves, already turning brown and cracking, drops that I would never have seen had Randy not pointed them out. A quarter of a mile down the hill we began to see more of it, a widening stream of blood, until it seemed that surely all of the bull's blood had drained out. We passed two places where the bull had lain down beneath a tree to die, but had gotten up and moved on. We found him by the creek a half mile away, down in the shadows, his huge antlers rising into a patch of sun and gleaming. (Loyal Mountains 72)

A description of the animal emerges from the presence of the drops of blood. The more drops there are, the more detailed the description of the injured and dying elk is. The substance of the text recreates the erratic dimension of the bull's escape and of the hunt. The monosyllabic words—"just a drop or two in the dry leaves," "all of the bull's blood had drained"—accelerate the rhythm of the sentences and evoke the urgency of the animal's escape. Furthermore, the interpolated clauses and the adverbial phrases mimic the

Ginzburg also suggests that hunter-gatherers may have been the first storytellers: "Perhaps the actual idea of narration ... may have originated in a hunting society, relating the experience of deciphering tracks. This obviously indemonstrable hypothesis nevertheless seems to be reinforced by the fact that the rhetorical figures on which the language of venatic deduction still rests today—the part in relation to the whole, the effect in relation to the cause—are traceable to the narrative axis of metonymy—. The hunter would have been the first 'to tell a story' because he alone was able to read, in the silent, nearly imperceptible tracks left by his prey, a coherent sequence of events" (103).

deciphering process during which Randy and the narrator have to stop in order to identify and interpret the rare clues they find on the ground's surface.

Throughout the story, the characters discuss the fairness of the cynegetic technique Randy resorts to. According to Suzie, bowhunting is cruel as it implies that the hunter deliberately injures the animal in order to follow its blood trail. The narrator's minute descriptions of the bow and of Randy's technique reveal that he respects, and even admires, this practice. Indeed, when bowhunting, Randy has to take more risks than with any other hunting technique. He uses an ancestral weapon—"a strong compound bow and wicked, heart-gleaming aluminum arrows with a whole spindle of razor blades at one end" (66)—which, just like Ahab's harpoon, forces him to be close to his prey:

Randy is so good at what he does it makes us jealous. He can crawl to within thirty yards of an animal when it is feeding, or he can sit so still that it walks right past him. Once shot, the animal runs but a short way—it bleeds to death or dies from trauma. The blood trail is easy to follow, especially in the snow. No one wants it to happen this way, but there's nothing to be done about it; bowhunting is like that. The others of us look at it being much fairer than hunting with a rifle, because you have to get so close to the animal to get a good shot. Thirty, thirty-five yards, max. Close enough to hear water sloshing in the elk's belly, from where he's just taken a drink from the creek. Close enough to hear the intakes of breath. Close enough to be fair. (68)

In this excerpt, Bass relies on the physicality of language to evoke the proximity between the hunter and the animal. At the end of the passage, he employs short clauses, nominal sentences, and anaphoras that echo the hunter's discretion and speed.

Despite his efforts to present a more ethical type of hunting, Bass does not try to deny the human advantage over animals in the context of the hunt. Indeed, Bass' hunting stories never end with the death of the hunter. However, in some stories, the prey manages to escape. In "The Lives of Rocks," for instance, a hunt abruptly ends when the snow covers the traces of a deer the human character Jyl had been following: "[The tracks] were already filled in with snow, and it was as if the thing had never existed" (Lives of Rocks 82). The interruption of the narrative and the use of the indeterminate noun "thing" reveal that the text coincides with the ephemeral dimension of the natural world. It is precisely by jeopardizing the course of the narrative that Bass suggests animals are elusive and literature should respect other ways of inhabiting the world. The ambiguity of the hunt thus

hints at the dilemma of animal representation in Bass' writing. Like the hunters who have to find a balance between following the track of a prey in order to kill it and maintaining a necessary distance from it, Bass develops various descriptive and narrative strategies in order to represent animals without invading the nonhuman worlds.

According to Marielle Macé, acknowledging other forms of living as "styles" invites us to consider our own way of living as a style. She argues that observing the style of each animal species can help each human individual to reflect on his own style. Indeed, if we consider that each animal species is "an idea, not a knowledge but a proposition, the expression of a 'form of existence" (102), then we can look at ourselves as one possible "form of existence." What matters, according to Macé, is that we do not confront styles in order to decide which ought to be defended, but that we preserve the plurality of ways of living (37). In this respect, paying close attention to the variety of animal styles renews our relationships with the nonhuman, but also with other human beings. When a writer carefully presents the variety of ways animals inhabit the world, he not only expresses that they are worth being described, and thus preserved, he also implies that animal styles are vital to the creation of a community of humans. In "Antlers," the modes of being of animals, and especially of the most vulnerable ones, not only influence the lives of the characters, they also shape the structure of the short story.

The narrator's knowledge of the ways deer inhabit the world gives him a better understanding of human relationships. In other words, he sees animals as tools for the self-reflection of human beings. The narrator can explain neither Randy's urge to kill animals, nor Suzie's inconsistent love life-she dates each single man in the valley for three months. It is through a process of empathy with injured prey that the narrator starts to unveil the mysteries of human desires: "But I have a better picture of what it's like to be the elk or deer" (73). Like prey, the narrator is always on the lookout. Twice, he can feel an invisible and threatening presence in the woods: "Once, I thought I heard some wild sound and turned to look back, but I saw nothing, saw no one," (74) and "There are times now when I feel someone or something is just behind me, following at a distance, and I'll turn around, frightened and angry both, and I won't see anything" (74). The fact that the narrator adopts the prey's behavior also has an impact on the form of the text. Indeed, the narrator's fear opens various plot lines that nevertheless prove to be misleading. This is a common feature of Bass' short stories in so far as the texts often display traces that are not always meaningful, and lead to plot lines which turn out to be impasses.³ The text thus features traces and imaginations of animals not as a means for an end but as an end in themselves.

The proximity between humans and animals also contributes to reuniting humans and animals and to creating a sense of community. The short story opens and ends with the presentation of the valley's Halloween ritual. Instead of wearing masks and costumes, the inhabitants attach antlers to their heads. This social event blurs the division between species. In the dark, the narrator tells us, humans look like deer: "we continued down the road in silence, the antlers on our heads bobbing and weaving, a fine target for anyone who might not have understood that we weren't wild animals" (75). The inhabitants live in isolated houses and do not have any neighbors, but celebrating Halloween allows them to spend a whole night together. They dance, drink, and reenact rut-combats. Storytelling also strengthens the links of the community. In the remote valleys that constitute the backgrounds of many of Bass' short stories, characters often gather to share stories of their encounters with animals. In fact, it is the stories they tell which link the community together most strongly. For instance, in "Choteau," the narrator entertains his friend with fake anecdotes (Watch 44), and in "The Lives of Rocks," Jyl fights loneliness and initiates a friendship with two children by telling them a fairytale (72).

Fiction also plays a crucial role in Bass' activist project. Even if he writes essays and articles in order to draw his readers' attention to the necessity of saving the last wild places and species of America, he argues that fiction can create more powerful emotions than an inventory of all the dangers that threaten his valley: "A great novel can reach thirty, fifty, even a hundred years into the future, across history, with such an idea, whereas a magazine article or newspaper editorial might have a shelf life of about two or three weeks" (*Book of Yaak* 10). Through the stories of men and women who have learned to adjust their lives to the rhythm of nature, Bass explores different reactions to the confrontation with the nonhuman. He illustrates how the ability to acknowledge the singularity of each animal style can influence the lives of human beings, and thus presents the conditions of an ethical and

³ For instance, it is also the case in "The Distance" (*Hermit's Story*). At Monticello, a guide tells the visitors that Jefferson had a semi-domesticated elk. Mason, the main character of the story, expects to see a similar animal during his visit and keeps staring at the woods. At the end of the story, he believes he saw an elk: "Something catches the corner of his eye: some distant movement, back in the woods. Something blue and wild and powerful." And yet, instead of following the shadow and trying to be face to face with the animal, he "turns away." (160)

vital coexistence between humans and animals. In *The Book of Yaak*, Rick Bass compares his artistic process with the behavior of wolves and bears:

Sometimes I think that art is like a wolf, traveling great distances around the edges of its wide territory, and chasing and hunting down objects of its desire: a deer in the deep snow. Traveling laterally, across the land, like thunder rolling. Other times I think that art is like a grizzly, burrowing deep into the earth, traveling vertically like lightning: mining the underground soil, the emotions of magic—the

In this excerpt, Bass shows that his writing is directly inspired by the different modes of wild animals' being. His writing indeed sometimes adopts a sort of conquering approach, but it also tries to respectfully approach an unattainable reality. Like animals, which resort to different modes of inhabiting the world, Bass ceaselessly adjusts his discourse to the various styles of the nonhuman. Similarly, in his fiction, Bass' narrators and characters are attentive to the diversity of animals' ways of being, and oscillate between a desire to capture animals and a wish to keep them at a distance. Through fictional examples of a fruitful coexistence between humans and animals, Bass thus shows the necessity of establishing more respectful relationships between the human and nonhuman worlds.

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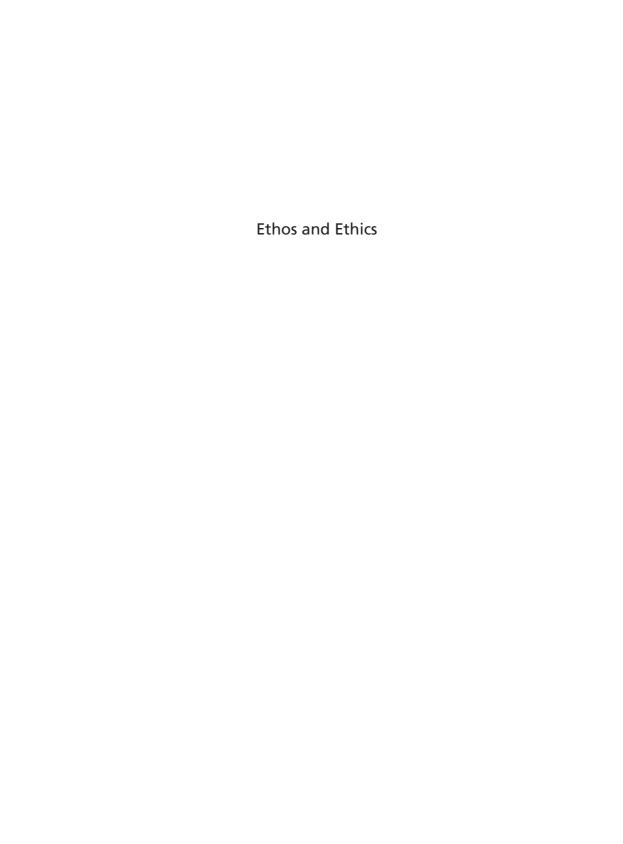
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"Piping in their honey dreams": Towards a Creaturely Ecopoetics

When considering the prospects for a coming together of zoopoetics and ecopoetics, and, more broadly, environmental humanities and animal studies, there can be few critters better to think with than bees. Bees abound in contemporary poetry, albeit, as Driscoll would insist, *in absentia*, as marks on a page, legible only within the code of written human language, even if some of those marks, when spoken aloud, might echo the sound of apian movement, opening the purely human text up to a type of "multi-species event" (Moe 8). However rendered, bees have been leaving their honeyed traces in the literary and visual texts of diverse human peoples pretty much ever since some of our ancestors took to inscribing meaningful marks on cave walls, and almost certainly for long before then in the songs and stories of oral cultures, some of which persist into the present (despite the depredations wrought by sundry imperialist regimes).

Within European cultural history, bees have also figured significantly in a major strand of poetic literature: namely, in the pastoral and Georgic traditions. In this essay, I propose a melding of zoopoetics and ecopoetics in the guise of a "creaturely ecopoetics" that I trace back to Romantic neo-Georgic and counter-pastoral, literary innovations that participated in the wider movement of re-conceptualizing and re-imagining human relations with nonhuman others and more-than-human environments that attended the emergence of industrial modernity. In particular, I will be homing in on the verse of the English laboring-class poet, John Clare, whose free-living poet-bees we are invited to witness "piping in their honey dreams" ("Wild Bees" 14) as well as suffering human depredation upon their homes and handiwork.

The art of creaturely ecopoetics, pushing back against the hyper-separation of humans from other animals, entails forms of imaginative "kin-making" and "sympoiesis," as Donna Haraway puts it, that have gained salience and urgency as the ecocidal impacts of the fossil-fueled industrialization of the Earth continue to drive ever more critters to extinction, as well as creating ever more hazardous conditions for vulnerable human populations (commonly, and unjustly, those who have done least to cause the damage).

¹ Cf. the contribution of Kári Driscoll to this volume.

As I hope to show below, creaturely ecopoetics conjoins zoopoetics and ecopoetics by disclosing continuities and connections among humans and other animals in the making and sustaining, alteration and ruination, of those environments in which our lives are inextricably entangled—ecologically, ethically, and biosemiotically—in multispecies matrices of (rarely untroubled and inevitably risky) co-becoming.

Carol Ann Duffy's collection *The Bees*, her first as British Poet Laureate and winner of the Costa Prize for Poetry in 2011, is one of an increasing number of bee books of various kinds, including non-fiction nature writing (e.g., Goulson), fiction (e.g., Kidd), and verse (e.g., Borodale). One does not have to be an avid environmentalist (although it helps) to know that this arresting efflorescence of textual bees is, in large part, an index of the troubling decline in apian critters beyond the page. Indeed, Duffy tells us as much in the sixth poem in her collection, "Ariel," which reworks one of Shakespeare's most mellifluous couplets to read:

Where the bee sucks, neonicotinoid insecticides in a cowslip's bell lie... (11)

Duffy's trashing of the rhythm, rhyme, and meter of Shakespeare's original lyric ("Where the bee sucks, there suck I, / In a cowslip's bell I lie" [5.1.88-89]) echoes, at the level of poetic form, the depredation of Earth's life-sustaining "discordant harmonies" (Botkin) by those industrial farming practices that are unquestionably contributing to the current crash in honey-bee populations, as well as threatening many wild bee species (along with other insects and the wider ecological networks in which they are key players). This is, without doubt, an explicitly environmental, even ecopolitical poem, which cuts its figure not only against Shakespeare, but also any number of earlier bee poems, including the sequence, implicitly also recalled here, in Sylvia Plath's collection Ariel, in which bees are set to work for anthropocentric purposes. But what interests me about Duffy's "Ariel" as an ecopoetic text is the way in which the unadorned naming of a prime suspect in the damage that the poem targets—neonicotinoid insecticides—performs a disruption of the pastoral register of Ariel's famous song: a song that could well be classed as zoopoetic, moreover, and one that recalls a considerably earlier figuration of human-nonhuman relations in the midst of a play, which, more than any other in Shakespeare's oeuvre, problematizes entrepreneurial ambitions to colonize, tame, and exploit more-than-human worlds in his own day (specifically, in Borlik's fascinating eco-historicist reading, the watery world of England's Fens).

Pastoral figurations of more-than-human worlds are commonly charged with being fanciful; and so they might well be, to varying degrees. Yet to level such a charge is effectively to make a category error, to the extent that the counter-factually idyllic nature of the pastoral is, of course, precisely its point. Recalling the foundational work in this genre, Theocritus' "little pictures" of rural life ("idylls," Gk. eidýllion, diminutive of eidos) mediated an "idea" (eidein) of human-nonhuman relations that stood in stark contrast to the socio-ecological contingencies of the cosmopolitan world of Alexandria in the third century BCE, in which the poet was writing. Nonetheless, recalling as they did the singing competitions of herdsmen from his natal homeland of Sicily, these were hardly works of pure imagination (were such a thing even possible). And while there might well have been an element of nostalgia, and potentially ideological compensation, in the sophisticated urban poet's playful appropriation of rustic oral traditions, nostalgia can also offer a site of resistance to a given status quo and its likely trajectory; nostalgia can be oppositional, even radically so (Soper). It is along these lines that Ken Hiltner (taking up, and taking issue with, Paul Alpers' magisterial What is Pastoral?) discerns the socio-critical edge of Renaissance (neo-)pastoral, as Jonathan Bate, and before him, Raymond Williams had done previously for Romantic (counter-)pastoral. Whether this might also be claimed for Theocritus is a question that I will have to leave to ecocritical classicists to debate. What I do find enchanting and important to ecopoetics in the *Idylls*, however, is Theoritus' acknowledgement of the indebtedness of the pastoral poet's lyric voice to the prior poiesis of bees.

In the *Idylls*, as in much subsequent pastoral literature, bees are invoked as part of the retinue of summer in the meadows: "sure bedstraw there doth thrive / And fine oak-trees and pretty bees all humming at the hive" (1.104; 19). As such, they are recruited to provide a kind of virtual mood music. From an eco-phenomenological perspective, however, this is hardly trivial. "Humming" is of course onomatopoeic, and in this way the written text bears a zoopoetic trace of an other-than-human voice. In conjunction with other metonymies of place and time (the grasses and wildflowers offering "bedstraw," soft ground on which to lie, under the shady green canopy offered by the "fine oak-trees"), this apian mood music summons the "atmosphere" (in the technical sense of Böhme's phenomenological "ecological aesthetics"; cf. also Rigby, "Gernot Böhme's Ecological Aesthetics") of dreamy, drowsy easefulness arising from a creaturely somatic-affective responsiveness

to particular socio-environmental conditions: noon, in a shady spot in the meadows, on a warm summer's day, when you are released, however briefly, from your labors (or, as in the admittedly idealized case of the Theocritus' imagined rural laborers, when the work itself allows periods of leisure), and in the absence of any overwhelming physical or emotional discomfort.

In the *Idylls*, as in much subsequent pastoral, this *locus amoenus* does nonetheless get wedded to a potential source of considerable suffering, as well as intense pleasure: namely erotic love. Here, too, bees play a part, and an interestingly ambivalent one at that. In the embedded narrative recounted in Idyll 19 (apparently invented by Theocritus), mischievous young Eros gets stung while stealing honey from the hive. When he runs complaining about this to his mother, Aphrodite wryly observes "'What?' ... 'art not a match for a bee, and thou so little and yet able to make wounds so great?" (19.1; 235) Here, bees are entertainingly construed as resisting their recruitment to the service of human amorousness as instigated by the honey-hungry boy-god, giving him a taste of his own medicine with a painful piercing, the diminutive counterpart of his love-dealing arrows. That Eros is said to have encountered such apian opposition might be related to the widespread assumption that bees did not reproduce sexually, an ethological error that led to their later association with the medieval Christian veneration of the Virgin Mary, and the notion that they alone of all creatures had escaped from the Garden of Eden untainted by the Fall (Preston 76-78).

The classical poet, however, was happily untainted by the Christian hierarchical dualism of Eros and Agape (while heir to a panoply of Greek terms that helpfully differentiated several other types of love). This is evident from the first Idyll, in which Theocritus enlists bees, not for their presumed chastity, but rather in service of the love-sick goatherd Daphnis, prototype for all subsequent pastoral poets. Having pledged himself exclusively to his first love, Daphnis is pining away for love of another, possibly Aphrodite herself, but is graciously fed by bees when incarcerated by a malicious king. The humble goatherd shares this distinction with several Greek deities, including the big boss, Zeus himself, who was fed by bees as an infant after his mother hid him in a cave to protect him from his violent father, Kronos, earning him the sobriquet, *melissaios*, bee-man, from the Greek for honey-bee, Melissa. Melissa also became the name of a bee nymph, and in some accounts, it was she who hid the baby god and fed him honey. Pan and Dionysus, key figures in the mythic landscape of pastoral literature, were also fed exclusively by bees as infants, and it was the latter who is said to have taught humans how to keep bees. Dionysus, like the Roman

Bacchus, was in fact originally the god, not of wine, but of mead, which is believed to be the most ancient alcoholic brew in the world. It is perhaps as a consequence of mead's capacity to induce altered states of consciousness that bees also became linked with prophecy: Apollo's Temple at Delphi was built of beeswax and attended by bees. Apian mysteries also crossed gender boundaries: the Delphic oracle was female, and the priestesses of Cybele, Artemis and Demeter were called *Melissae* (Preston 115-120). In this shared denomination, another boundary-crossing quality of the bee becomes apparent, linking earth mothers with virgin huntresses, the domestic and the wild.

It is precisely in this contact zone that the pastoral is located, and it is through the story of Daphnis, friend to all wild creatures, yet blessed with exceptional gifts of human speech and song, that the poet acknowledges his indebtedness to the *poiesis* of bees. This has both a metaphoric and a material dimension. To begin with, the sweetness to the ear of Daphnis' voice is likened to "honey to the lip" (Theocritus 8.81; 119) in an apian trope for eloquence and insight that is also in play in the accounts of numerous other bee-fed writers (Sophocles, Pindar, and later Vergil and Lucan), philosophers (Xenophon, Plato), as well as Christian saints (Basil of Caesaria, Ambrose and especially Bernard, who became known as doctor mellifluous, patron saint of bees, bee-keepers, wax-melters and candle-makers). Additionally, however, the pipe that Daphnis bequeaths to Pan is referred to as "pipe of honey breath, / Of wax well knit round lips to fit" (1.128; 21): an acknowledgement of the human appropriation of the fruits of bee labor in the construction of works of human culture; an acknowledgement that is all the more requisite in light of modern scientific understandings of the crucial role of bees as pollinators for so many of the plants upon which the food chain, in which we too participate, depends. Today, with toxins accumulating across Earth's industrialized agricultural landscapes, as Duffy's "post-pastoral" (Gifford) Ariel reminds us-

sour in the soil, sheathing the seed, systemic in plants and crops the million acres to be ploughed, seething in the orchards now, under the blossom that hangs on the bough. (11) -it behooves us to recognize, belatedly, that we are all bee-fed, to some degree; and that in the absence of the *poiesis* of the more-than-human world, in which bees are such key singers in the choir, there would be no *poiesis* of merely human words.

Bees are thought to have evolved in tandem with the glorious appearance of flowering plants during the Cretaceous era, possibly as early as 130 million years ago. Sometime over the next 50 million years, some bee species had developed a social lifestyle, with remarkable artisanal proclivities and communicative capacities. There are-still-an estimated 20-25,000 species that are known to science, but only a small number of these are honey bees: the kind in which sweet-toothed humans have understandably been most interested (Goulson 42-51; Preston 7-8). Although the oldest surviving written works concerning beekeeping are Hittite texts from around 1,300 BCE, it seems that bees had already begun to be domesticated—to the extent that they ever have been, which is not entirely—in Egypt from around 4,500 years ago. That this practice was subsequently most avidly taken up in Europe has less to do with any special human bee-taming prowess in those parts, than with propensities of a particular bee species found there: namely, the Western honey bee (apis mellifora), who is a gentler critter than many other honey bees, although armed with that infamous sting, which constituted one of many unpleasant surprises for First Nations Australians, previously accustomed only to stingless bees, following the invasion of their country by resource-hungry Europeans and their generally mightily disruptive biotic entourage. For, having proven particularly amenable to cohabiting with humans in artificial hives, apis mellifera was thence later transported to all the parts of the world European nations have colonized (Preston 10).

Beekeeping enters European pastoral literature in its more labor-intensive moiety, namely the Georgic, pioneered by Vergil in his famous work of that name from around 29 BCE, but pre-figured in Hesiod's *Work and Days* (c. 700 BCE), a farmer's almanac in which honeybees are recruited to provide an exemplar of cooperative rural labor (with the exception of the drones, which to poet likens to good-for-nothing women and sluggards). In his *Georgics*, Vergil composes an agrarian counterpart to the more "idyllic"—albeit by no means untroubled—world of his earlier *Eclogues* (42-37 BCE), which responded more directly to the Theocratic prototype. Celebrating "husbandry," the *Georgics* endorse a human (and, like Hesiod, specifically male-gendered) dominion, an attitude that became infused with a biblical mandate in later Christianized variants of this pastoral sub-genre (Gifford 20); but the Georgic poet also warns against hubris by insisting that success-

ful farming demands close attention to the peculiarities of weather, water and soil, and the ways of vegetal growth and animal conduct. Nowhere is this acknowledgement of the potentially resistant agencies of the nonhuman more pronounced than in Book 4, which is entirely devoted to the art of beekeeping. This is shown to entail the orchestration of a kind of pastoral idyll for the free-living bees as a way of luring them to make themselves at home in the artificial hive, which should be sited near "clear springs and mossgreen pools" (19), surrounded by their favorite flowering plants growing in a shady nook, with appealing access provided by little bridges of carefully positioned stones and willow-branches strewn across the hurrying brook. In this "ecopoetic" (Rigby "Ecopoetics") vision of multispecies creation, beekeeping is conceived as ideally benefitting all concerned, on the premise that if the bees are not happy with their treatment and surroundings, they can and will simply up and leave (a privilege not shared by more thoroughly domesticated livestock).

Following the recovery, recasting, and repurposing of classical pastoral during the Renaissance, the Virgilian dyad of Georgic and bucolic modes gave way during the eighteenth century to a stark divide between the idealizations of Augustan pastoral and the subversive realism of laboring-class "anti-pastoral," as exemplified by Stephen Duck's *The Threshers' Labour* (1730) (Gifford). The genius of Romantic neo- or counter-pastoral verse at its best was that it forged a new synthesis, celebrating the more-than-human life of the countryside-and sometimes even, as in William Wordsworth's London Bridge sonnet, of the city—in the shadow of industrialization, from a standpoint of resistance to the encroaching objectification, instrumentalization and commodification of the natural world (Rigby, *Topographies* 234-56). The late Romantic poet John Clare carried forward the vision of present pleasure and immanent holiness of Wordsworth's earlier verse, while introducing a whole new attentiveness to the particularities of the poet's other-than-human fellow creatures, and the varied perils that they faced. For pioneering ecocritic Jonathan Bate (153-68), Clare's verse exemplified the art of eco-poiesis, understood (with Heidegger) as the verbal "making of the dwelling place," in that it resembled the bird's nests that abound in his work: it opens a space, woven of words, within which life can come forth and be nurtured. But is this to put too parental a spin on it? After all, most of the animals that haunt Clare's extensive zoopoetic oeuvre are not domesticated, and they are commonly framed both as strangers, respecting their other-than-human alterity, and as neighbors, with the full ethical freight that concept carried in a Christian culture (where neighborliness was of course always meant to

be extended to the stranger, but in which that welcome, when practiced at all, had historically been largely confined to other humans). In my reading, then, Clare's ecopoetics is less about nesting, connoting care for your own kith and kin, than about kin-making across the boundaries that separate different kinds: a tricky practice of multispecies world-making beset by friction, fraught with risk.

The bees that leave their traces in the two poems I want to discuss here are identified from the outset as "wild," suggesting that we are in the territory of pastoral idyll rather than agrarian Georgic. Yet, while this might be partially true of the earlier of this contrasting pair, it is definitely not the case with his untitled sonnet from the 1830s, and both are in differing ways hybrid forms. Although only lightly sketched, the apian others of "Wild Bees" (c. 1820s) differ from the generic critters of earlier pastoral in being clearly differentiated into diverse kinds. So attentive is Clare to the particularities of his strange apian neighbors that the entomologist, Jeff Ollerton, has been able to identify most of them with a reasonable degree of zoological confidence as, respectively, the male and female Hairy-footed Flower Bee (Anthophora plumipes), the Buff-tailed Bumblebee (Bombus terrestris), the Red-shanked Carder Bee (Bombus ruderarius), and the Common Carder Bee (*Bombus pascuorum*). This element of close observation is no less ethically significant than it is formally innovative, namely as an index of Clare's perception and presentation of his rural environs as a multispecies oikos, rather than as scenery, a mere backdrop for human dramas. This poem nonetheless stays close to earlier pastoral in its recollection of Daphnis' "pipe of honey breath." Here, though, it is the bees themselves that are identified in the opening stanza as "pipers":

These children of the sun which summer brings As pastoral minstrels in her merry train Pipe rustic ballads upon busy wings And glad the cotters' quiet toils again. (1-4)

That the happy hearer of the bees' balladry is not a herdsman but a toiling cottager—a rural laborer, perhaps, as was Clare himself—nonetheless throws us into Georgic terrain, but without any hint of human appropriation of the fruits of apian labor. Instead, what Clare presents is a gift economy, where plants "shed dainty perfumes and give honey food" to the bees, whose piping cheers the cottager. The first-named "white-nosed bees" and their "never absent couzin [sic], black as coal" (7) also avail themselves of unintentional human beneficence by nesting in "mortared walls," and it is there, "in their

holes abed at close of day / They still keep piping in their honey dreams" (14). In equally unintentional return, these and other "sweet poets of the summer fields" greatly delight the speaker as he strolls "along / The narrow path that hay laid meadow yields, / Catching the windings of their wandering song" (20, 22-23). The human poet, taking up the "pastoral" ballad of the bees, responds in kind with his own gift of words in honor of his apian counterparts. Foregrounding his musical kinship with these apian others, Clare implicitly offers his verse as a work of sympoiesis, inspired and enabled by the summery symphonies of wild bees, which are in turn inspired and enabled by floral flourishing.

In "Wild Bees," Clare provides a vision of symbiosis that does not demand a return to putative paradise, in which, according to the Christian conceit, for example, in Wordsworth's "Vernal Ode" (1820), the bee had not yet acquired its sting. Here, as elsewhere, Clare admits conflict and suffering as an inevitable dimension of creaturely existence, remarking the propensity of the "russet commoner who knows the face / Of every blossom that the meadow brings" to startle the "traveller to a qu[i]cker pace / By threat[e] ning round his head in many rings" (32-35). The risky dimension of multispecies world-making might also be discerned in the bees' very piping: for while this might recall Daphnis, and by extension, the mythic pastoral locus amoenus governed by Pan, it could also connote a cause, if not necessarily for panic, then at least for caution, as "piping" is the term used by beekeepers to refer to the noise coming from the hive of social bees busily preparing to swarm. It is as much in such recollections of a shared capacity to inflict and receive harm as in the invocation of more felicitous forms of co-becoming that Clare's ecopoetics is distinctively "creaturely."

In the sonnet that begins, "The mower tramples on the wild bees nest" (c. 1832-37), the moment of threat has become predominant, and, as in other animal poems from this period, it is humans who are the primary aggressors. The first line locates us firmly in a Georgic world, but one in which the focus is not on the human craft of working with sundry, sometimes resistant other-than-human actants to make a living from the land, but rather on the price exacted on wildlife by human activities in rural places. This is foregrounded starkly in the opening line: "The mower tramples on the wild bees' nest." The damage in this case (as in Robert Burns' famous "To a Mouse") is evidently accidental and regretted, for the mower "hears the busy noise and stops the rest." The rest of the poem, however, focuses on the actions of those who do not share the mower's consideration for the wellbeing of others, who instead "careless proggle out the mossy ball / And

gather up the honey comb and all." That this is not just a matter of subsistence, but of an excessive form of consumption, "careless" of consequences, is made clear by the repeated description of not simply honey gathering, but of taking "the honey comb and all" (4, 11). And while the speaker of the earlier poem simply garners pleasure from the "symphonies" piped by those bees who avail themselves of the fruits of human labor by nesting in walls, the schoolboy of the sonnet "knocks his hat agen the wall / And progs a stick in every hole he sees / To steal the honey bag of black nosed bees." There is also an element of carelessness in the description of the schoolboy who, in gathering a wild harvest of dewberries, comes across poison berries (of the Solanum dulcamara, or nightshade plant), which he "lays on the hedge," risking their consumption by other children or animals. At the same time, the reference to poisonous berries resonates with the threat of the bees' defensive sting, which is alluded to in the following lines, describing the schoolboy driving the bees out of the hay with his stick, while the maiden who "goes to turn the hay ... whips her apron and runs away." Here, human violence towards other species is implicitly allied with male sexual aggression towards females: There might be an echo of the Theocratic analogy between the bees' sting and Eros' arrows, both in turn carrying phallic connotations; but there is a darker strain here that undercuts the pleasurable promise of libidinous dalliance amidst the hay so familiar from earlier pastoral.

While the forms of (inter-and intra-specific) friction and injury alluded to here might be described as run-of-the-mill dimensions of rural life, which Clare also targeted in his counter-pastoral critique of traditional practices such as badger-baiting and hedgehog eradication, the tender attentiveness to the lives of fellow creatures that is evident in these bee poems also informs his response to the enclosures that were rapidly transforming the Northamptonshire countryside during his lifetime. In "The Lamentations of Roundoak Waters" (1818), for example, the felling of woodland, straightening of waterways, and conversion of moors and meadows to commercial crop production are shown to affect not only subaltern humans (gypsies and the rural poor), but the entire multispecies collective that co-constituted the commons: humans, animals (wild and domesticated), diverse plants, and even the free-flowing brook itself, whose watery lament it is that the poet translates into human words. This commodification of land and its ever-more intensively farmed produce constituted a form of internal colonization during the era that Anna Tsing and Donna Haraway have dubbed the Plantationocene which began with "the devastating transformation of diverse kinds of human-tended farms, pastures, and forests into extractive

and enclosed plantations, relying on slave labor and other forms of exploited, alienated, and usually spatially transported labor" (162). Beginning in the sixteenth century, "the Plantationocene continues with ever-greater ferocity in globalized factory meat production, monocrop agribusiness, and immense substitutions of crops like palm oil for multispecies forests and their products that sustain human and nonhuman critters alike" (162). Among its victims are bees, who have in the meantime been subjected to a whole new regime of industrial exploitation, nowhere more thoroughly than in the US, where they are bred and transported around the country wherever required to pollinate some \$40 billion worth of cash crops annually, representing around one-third of all food consumed (Hagopian). These bees have become vulnerable to a lethal mix of parasites and pests, pathogens, pesticides, reduced genetic diversity, and poor nutrition-including, obscenely, being fed on corn syrup in place of their own honey-contributing to the appalling phenomenon of Colony Collapse Disorder. Meanwhile, many of their free-living counterparts have declined dramatically as a consequence of the loss of their food sources, together with toxins ingested from flowering crops, and the impacts of climate change (Miller-Struttman). Among these are the Red-shanked Carder Bee, celebrated by Clare as the "russet commoner who knows the face, / Of every blossom that the meadow brings," which has seen a huge decline throughout its range (Ollerton).

If the "honey dreams" of Clare's buzzing minstrels still carried the ancient cultural connotation of the Delphic oracle, today's apian messengers have become prophets of a different sort. As Preston observes mournfully, "the substances they gather in water, nectar pollen and even blood gas [are now] analyzed for ecological changes and health hazards. As animal monitors of these various toxins and dangers, bees are likely to perish in the very act of bringing us the dire tidings of our own terrible technologies" (166). There is an appalling irony in all this. Following Karl von Frisch's pioneering work on the role of dance in honeybee communication, zoosemiotician Thomas A. Seboek, has shown that "bee-speak" entails the use of symbolic (or "arbitrary") as well as indexical and iconic signs, thereby subverting the great divide between humans as the sole animal symbolicum, as Ernst Cassirer put it, and all the rest (Bühler 71-72). And it appears to be precisely because of their communicative intelligence and collaborative way of life that bee colonies are so vulnerable to neonicotinoid poisoning: "Bees take the contaminated nectar and pollen spread through the plant's DNA back to the hive, creating a highly toxic living environment for all the bees. Toxicity builds up destroying the Central Nervous System, causing further disorientation and

bees ultimately can neither fly nor make it back to the nest" (Hagopian). How comes it that a culture which has historically glorified the human species precisely for our alleged superior intelligence, should have placed its techno-scientific know-how so thoroughly in thrall to corporate profits that we are stupefying a kindred species, upon whose intelligence we are ourselves dependent? This seems to be as clear an indication as any that the so-called "environmental crisis" should indeed be recognized as a "crisis of [what we have taken to be] reason" (Plumwood).

Pushing back against the death-dealing logic of the Plantationocene, Haraway avers that "[i]f there is to be multispecies ecojustice, which can also embrace diverse human people ... we have a mammalian job to do, with our biotic and abiotic sym-poietic collaborators, co-labourers. We need to make kin sym-chthonically, sym-poetically. Who and whatever we are, we need to make-with—become-with, compose-with—the earth-bound" (161). In this moment of danger and possibility, the kind of creaturely ecopoetics penned by Clare in the shadow of enclosure acquires an added salience, modelling in verse modalities of multispecies world-making that we are now called upon to put in practice beyond the page.

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Cross-Pollinating: Indigenous Frictions and Honeybee Fictions

As a US undergraduate in the 1990s, my favorite course was Practical Beekeeping. Admitting it today makes me sound edgy, even hip, but back then it was just a sure sign that I was an animal nerd. What happened? Increasing awareness of the precarious fate of honeybees in our time is only part of the story, which is more broadly shaped by shifting perceptions of environments as mutable multispecies communities.

Anxieties about bees' and other eusocial insects' separation from "human will" used to result in elaborate dismissals of their "radical autonymy," what Eric Brown elaborates as their ways of being "beyond our capacity for language" (xii). As an exemplary case, Jacques Derrida identifies "the old yet modernized topos of the bee" in Jacques Lacan's dismissal of honeybee communication as "coding"-that is, as exhibiting purely mechanical or "animal" reaction without the possibility of a response (123). For Derrida, such studied unresponsiveness to the capacity for another species to respond proves a key deconstructive element in the ontological hierarchy of human over animal. It also flies in the face of entomological studies. Starting with Karl von Frisch's translations of honeybees' waggle dances in the 1920s, scientific evidence over the past century relentlessly demonstrates in ever greater detail how bees share knowledges at and beyond human capacities. As our global food security and much biodiversity as well have come to depend on honeybees' work as pollinators, stories about their and our capacities to respond to ever more precarious conditions appear to concern the fates of more species than we will ever know. Amid growing concerns about their plummeting populations in recent decades, honeybees' complex social lives appear more imbricate with those of humans as well as other animals and plants.

By looking at patterns emerging across contemporary honeybee fictions, this essay explores how representations of responsiveness in human encounters with the nonhuman collective intelligences of honeybees relate a biopolitics of endangerment to settler-colonialist histories. The current industrial-agricultural reliance on a single species, the western or European honeybee (*Apis mellifera*), grew from movements of the species far beyond native habitats, and as a direct result of European colonial expansionism.

Amid mounting evidence that trucking bees to pollinate one monocrop after another may be driving them to extinction, their displacements of some and consequent fostering of other indigenous creatures and Native knowledges clarify that they have never been simply exploited. Challenging assumptions about human governance of populations, a more complex biopolitical vision of ecology is at the heart of several recent attempts to depict bees in the irreducibly collective structures of hives, and especially swarms.

Marking a dramatic turn in the aesthetic history of honeybee representation, some contemporary bee fictions highlight what is at stake for animal studies and ecocriticism in the posthumanist challenge of thinking about organisms together with environments by attending to biological mechanisms in the contexts of their political articulations. Mapping a break with the biopolitical philosophy associated with Giorgio Agamben that emphasizes singularity and sovereignty as the proper (human) concern over bare (animal) life, Cary Wolfe cautiously advances "another thought of the biopolitical in which human and nonhuman lives are deeply woven together de facto even if, de jure, they 'politically' have nothing to do with each other . . ." (48). Wolfe is less clear about how this thought proceeds from a line of thinking advanced by Donna Haraway, Vinciane Despret, and other human-animal studies scholars who elaborate how our knowledges and experiences as humans are inconceivable apart from particular multispecies relationships. Without that context, the image that he returns to of a cow in a concentrated animal feedlot operation limits understandings of its ecological implications.

Wolfe's primary intention is to highlight the problematic thinking through which livestock become killable but not murderable. From his object choice, ecocritic Ursula Heise surmises that all posthumanist animal theory is concerned with is the politics of domestication. From her perspective, it therefore constitutes a rear-guard action that extends animal-rights and welfare advocates' attempts "to establish animals as members of the human social, political, and legal community" (149), and repeats their mistakes of privileging domesticates at the expense of endangered wildlife (ibid.). Extending thinking about the politics of our interwoven lives to honeybees, however, reveals the limits of "the" community that Heise has in mind. As semi-feral working animals, honeybees provide us with more and better food through their work as pollinators, which can involve crowding out other pollinators as well as enabling still more wildlife to exist in depleted conditions. Their changing stories become legible as such only through an ecopoetics that does not trump so much as stands to be enriched by posthumanist approaches to zoopoetics.

Honeybees are eusocial, their colonies considered superorganisms, like our own microbiome-dependent human bodies, and quite unlike most other bee species. Unlike the Hawai'ian yellow-faced bee (*Hyaleus longiceps*), a species listed alongside six others as endangered in 2016—a first for bees in the US (Dell'Amore)—honeybees are unable to live alone. Their colonies are adaptable to a wide variety of conditions, including housing in human-built portable hive structures, through which they have traveled and come to share with Eurowestern people a global colonial history. Further complicating the bee-endangerment picture is that, while indigenous species like the Hawai'ian yellow-faced bee have in part been crowded out by imported honeybees, they yet remain indebted to them for calling attention to their dropping numbers, even in some cases their very identity as native pollinators. Attention to their plight follows from the fact that honeybees are undergoing drastic transformations that have as much to do with beekeeping practices as the stories we tell about them.

Longtime symbols of diligence, utopian community, sweetness, and light, honeybees' twentieth-century associations trend toward the unpleasant. Following the development and escape of a hybridized European-African strain dubbed "Africanized honeybees," or colloquially "killer bees," in Brazil in the 1950s (Schneider, DeGrandi-Hoffman, and Smith 352), the growing recognition of honeybees' coordinated-communications capabilities, if not their ecological uncanniness, fueled their figuration as an invasive menace in the US, the stuff of horror films like *The Swarm* (1978). With their slow northward territorial expansion, tracked through the Cold War and into today's War on Terror, Africanized bees range ever farther across the Americas even as they gain a special hold on US racial and colonial imaginaries. Produced by researchers in South America who bred different European and African subspecies of *Apis mellifera*, the "killers" are more than just remarkably prolific intra-specific hybrids that respond comparatively faster and in greater numbers in defense of their hives than their ancestors: they embody a human threat signified by killer bees' official moniker, Africanized honeybees.

In discussions developing around the international activist movement Black Lives Matter, the weirdness of the term "Africanized" draws attention to killer bees' eerie similarities to descendants of other populations relocated across the Atlantic in the colonial period, whose darker bodies and defensive behaviors likewise are often perceived as signs of aggression, provoking responses that all too often turn lethal for them. Decades ago, the nineties hardcore hip-hop release *The Swarm* by Wu-Tang Killa Bees (an assemblage of artists in or associated with the multiplatinum rap group Wu-Tang Clan) in-

dicated more creative potentials for cross-species alignments, portending the many ways honeybee fictions engage productively with indigenous frictions.

As the strangeness of "Africanized" indicates, indigeneity immediately raises the question: Where do honeybees belong? In most places where they live today, honeybees are not native and not wild, complicating associations with indigeneity and again environmental concerns about bees' impending doom. The western honeybee is the most widely distributed bee species, and due to its economic significance the most heavily monitored kind of bee, arguably even "the best-known insect on the planet" (Seeley 3). Accordingly, this species has come to serve as the proverbial canary in the coal mine, indicating alarming death rates among their own kind as well as among wild bee and other pollinating species. As animate creatures whose self-sustaining pollen- and nectar-gathering has the added benefit of artificial pollination that assists in both the sexual reproduction and genetic outcrossing of most vegetal species-an estimated seventy-five percent of crop plants, including most fruits, vegetables, nuts, and seeds, as well as ninety per cent of wild plants worldwide (Buchmann and Nabhan)-the mounting evidence of potentially fatal stresses on these and other pollinators rightly inspires movements for protection.

Only planning for eco-salvation becomes complicated where honeybees have been made to replace native pollinators. Biologically gynocentric and colonial organisms, honeybees bring together complex cultural as well as agricultural colonial histories, particularly in the Americas, where they had been extinct for millennia before seventeenth-century European peoples arrived with their hives. Not long after, Thomas Jefferson apocryphally wrote, "The Indians ... call them the white man's fly, and consider their approach as indicating the approach of the settlements of the whites" (79), a fantasy that exemplifies how bees became enlisted in the ideological along with material processes of settler colonialism, as well as what makes the fragility of these relations so compelling today.

More clearly than with most animal species in agricultural production, honeybees' rising economic significance within the past century adds to pressures that are bringing worldwide food production to record highs and risking catastrophic breakdowns. While scientists fail to settle on a single cause, the Colony Collapse Disorder crisis first observed in 2006 increasingly appears to be a symptom of the highly contingent and unsustainable growth of "apis industrial agriculture," a peculiar form of animal farming in which we consume not animal bodies but the products of animal labor (Nimmo 185). Moving beehives across vast distances to pollinate a succes-

sion of crops makes farming more efficient, but it compounds pressures like the spread of parasites and diseases through severely limiting the diet of animals evolved to forage widely. Extinction in this case would result not from active predation or habitat displacement but the very conditions of industrial-scale agriculture—propelled by the doubling of the world's human populations along with the increase of our caloric consumption by almost a third, all within the past fifty years ("Food")—which has grown to depend on large-scale monocrop plantings, the fertilization of which in turn requires the commercial apiculture of the European honeybee.

Unfortunately, liberating our Lilliputian livestock is not a solution. Never simply confined, dominated, or exploited when housed in fields to do their thing, honeybees are self-organizing societies that have always, and perhaps can still, thrive in symbiosis with humans; only together with us they have become unevenly engaged with the fates of other populations. Honeybees' increasingly complex relations to vulnerabilities in food chains and ecosystems reveal the need for the kind of biopolitical thinking about animals advocated by Wolfe, in which violence becomes conceivable as "an affair of power over and of life that is regularized, routinized, and banalized in the services of a strategic, not symbolic project" (27). Such a shift can be illustrated through scenes of attacks by colonies of honeybees against colonizing humans in recent novels, although their implications for a biopolitics of indigeneity are more readily grasped in the context of narratives more centrally concerned with communicating honeybees' power over and of life.

Minor scenes in J. M. Coetzee's Boyhood (1998) and Louise Erdrich's The Plague of Doves (2008) invite comparison for staging honeybees on the attack, and specifically targeting descendants of white settlers. Through Coetzee's semi-autobiographical reminiscences of his Afrikaans' grandfather's farm, we see young white John approaching a hive that clearly has been raided previously by people in search of honey. His faith in his own good intentions proves no protection against the "little, black bees" who send him running (97), and a sense of poetic justice grows through recognition of the animals as the native Cape honeybee subspecies (Apis mellifera capensis). Erdrich's story adds a more complex sense of honeybee poetic justice because it is set in North Dakota where the bees are invasives, yet they play an active part in the cosmology of Anton, a part-Ojibway narrator. Later in life, Anton recalls how the feral hive nesting in the wall of his house attacked the white guy hired to demolish it, and more: Anton describes how he himself comes to witness the incident because the house has called out to him along with the bees, asking for help. A staple of Erdrich's fiction, the traditional

Ojibway worldview, in which humans, animals, and things are relationally co-constituted (Rainwater 158), here encompasses an invasive species and a Métis man, although it remains unclear whether the author or her character recognizes the complexity of their relations as such.

The naiveté of both Coetzee's and Erdrich's characters regarding bees may relay more than the authors intend. Although highly aware of themselves as precariously tied to the land, neither of them questions whether the bees belong there, too. Moreover, because both authors appeal to the tropes of "killer bees" in lieu of honeybee biology, the biopolitical implications of these scenes become clearer only in contrast to stories that convey a greater sense of intimacy with, and understanding of, bee communication, particularly in the form of the swarm.

Swarming is the unique behavior through which honeybees collectively choose a new home from among several options. When a hive decides that it is big enough, the old queen leaves with more than half of the worker bees to form a new colony. Terms like "queen" support the everyday perceptions of hive rule captured in Charles Butler's 1609 title, The Feminine Monarchie. By the end of the twentieth century, however, entomologist Tom Seeley's meticulous studies of swarm behaviors indicate that honeybees operate at crucial moments more along the lines of what he outlines in terms of a USstyle democratic political model. A swarm settles somewhere, scouts go out, then return to share information about different options through waggle dances, and finally conclude with a collective decision to move into a new home-which Seeley's inventive bee experiments on a remote island in the Atlantic Ocean have shown is almost always the best of all of the available options. It is an eerily similar process to what goes on between the neurons in our brains when we make decisions, arguably the defining hive-mind quality of a superorganism. Citing other entomologists like Bert Hölldobler and E.O. Wilson, Seeley argues that, "in both cases, a constellation of units at one level of biological organization cooperate closely to build a higher-level entity" (237). Exactly how honeybee swarms process information eludes human understanding.

In recent fictions, swarms also call attention to the complex roles of nonhuman intelligences in mediating indigenous pasts and futures. Three novels feature female characters attracted to gynocentric communities. These people find themselves at the center of a honeybee swarm that has literally settled on their bodies. Through intimate contact, they recognize the nonhuman intelligence that has organized the swarm and, as a result, actively distance themselves from their settler heritage. Each novel is ostensibly about

a girl's coming to terms with the racist and colonialist legacies of her own human community, and her encounter with the swarm triggers profound social transformations. By the end, each girl is moved to become a beekeeper, and, what is perhaps most curious is that, across the decades, this character type increasingly, if haltingly, is also identified as indigenous. Far from operating as a metaphorical "queen bee," each girl promotes power distribution in communities that both value and reflect the model of honeybees.

In David Malouf's critical success Remembering Babylon (1993), the character Janet eventually grows up to live as a nun in a convent, but the obvious beehive metaphor becomes complicated by her becoming also an internationally recognized bee-breeding researcher. Early critics of the novel took exception to its silencing of Aboriginal characters, but Clare Archer-Leane more recently links the novel's concerns with human animality to its visualizations of human-animal encounters in order to show that the story deconstructs romanticized Nature in order to introduce a more explicitly "post-pastoral" vision (5). At stake in such a vision is the very existence of Aboriginal peoples, which grows even more apparent through the novel's bee sub-plot. Compelled to solve the mystery of nonhuman intelligence in her early encounter with the swarm, Janet's later success at hybridizing indigenous Australian native stingless honeybees with imported European honeybees figuratively folds back on the girl's youthful attachment to Jemmy, a white man assimilated to Aboriginal culture, who is the historical figure at the heart of the story. Like Janet, descended of settler stock but with no direct experience of their putative homeland, her hybridized bees allow her to model an alternative future to the displacement and eventual murder at the hands of other white people that is Jemmy's fate along with that of his adoptive Aboriginal community.

In Sue Monk Kidd's bestseller, *The Secret Life of Bees* (2002), a similar swarm experience inspires the central narrator Lily to flee her brutal white father in the company of her black nanny, Rosaleen, who in the Jim-Crow-era Deep South is threatened with lynching for legally registering to vote. Lily and Rosaleen take shelter in a community of African American women who worship a female deity with honey in the tradition of their slave ancestors, and Lily eventually apprentices as a beekeeper with their leader. In a place and time fraught with racial tensions between white and black people, questions of indigeneity—of who belongs, and where—become coded as family legacies. Although the girl's self-identification as white may inspire far more explicit accusations of "cultural theft" (Grobman 9) than *Remembering Babylon*, all along the novel hints that the girl is being kept from knowing that her long-dead mother was not white, and that she may be finding her kin and kind in

the company of bees. Following a sustainable pre-apis-industrial-agricultural model, the descendants of imported European honeybees and African slaves make a life and a living together off the land, seemingly happily ever after, when in the end Lily's father opts to abandon her with them.

A young adult novel, Lindsay Eagar's Hour of the Bees (2016) envisions a gynocentric community mostly through the Chicana protagonist's dramas with her sister and other schoolgirls, but all along her grandfather calls attention to the nagging problem of her reluctance to embrace what he terms their "Spanish" heritage in the New Mexico desert. Similar to those of Janet and Lily, her experience of being covered by a swarm results in dramatic changes, in this case her family's relocation to the grandfather's farm, thereby saving it from developers. But the family's collective decision to become beekeepers relates still more directly to a dawning sense of indigenous belonging. The magic worked by the swarm of bees also corroborates the grandfather's tall tales about himself personally occupying the same land for over a thousand years, which implicitly reveals too that they are all Native Americans. Although the cultural reference points otherwise remain vague, the explicit admixture of Anglo, Spanish, Chicana, and indigenous elements-what Gloria Anzaldúa identifies as characterizing the "New Mestiza" (Anzaldúa)-here might be read as dramatized in a coming-to-consciousness with the help of bees, quietly rehearsing a recasting of racial, along with species, divisions into biopolitical relations.

But under what conditions? If the massive die-offs of honeybees in the past two decades have inspired "a renaissance of bees in the modern imagination" (Botelho 99), then it only becomes evident when bees move to the center of the story. An even more pervasive sense of doom-evident in controversial, headline-grabbing terms like "beemageddon" or "beepocalypse" that are now being repurposed in elaborate denial campaigns by pharmaceutical-corporation lobbyists and litigators (Carroll; Simon 3)-more explicitly appears in other fictions. It is spun as a choice for bees, the penultimate outcome of the courtroom scene in the animated film *Bee Movie* (2007), which features an anachronistic male worker bee suing successfully for the rights of bees to keep their own honey. Liberated queer bees with legalese then inadvertently trigger a worldwide wipeout of unpollinated flowering plants, which inspires the bees to go back to work, saving the world. More predictably "happily ever after" for younger audiences than *The Secret Life of* Bees and Hour of the Bees, the film explicitly depicts bees as making collective choices, which is again the defining behavior of swarms, only here projected at the species level and on a global scale.

Similarly projecting honeybee autopoesis at the species level, Douglas Coupland's novel $Generation\ A\ (2009)$ dramatizes how the "hive mind" embodies ways of knowing and being in the world that align still more directly with indigenous human worldviews, despite massive scale death. $Generation\ A$ is the most prominent contemporary novel to detail the looming global threats accelerated by the commercialization of honeybee pollination. It begins after their mysterious disappearance from the entire planet, when a handful of honeybees miraculously reappears across the globe, only to kill themselves by stinging five people scattered seemingly at random.

"Beepocalypse" here is portrayed as a symptom of industrial farming's impending "pharmageddon," that is, the global-scale ecocide set in motion by a profit-hungry agricultural-pharmaceutical corporation. Through the course of the story, it is revealed that the company will increase production of a highly addictive drug that resigns people to social alienation, and that causes massive die-offs of bees and other insects wherever it is produced. Within the characters' lifetimes, honey, apples, and almonds have become extremely high-end, black market fare, and the rapid deterioration of social systems, both symptomatized and propelled by the apparent extinction of honeybees, has become the new norm.

Scientists conclude that the victims of bee stings—who ironically dub themselves the Wonka children—appear to have been selected by the last remaining bees because they share a rare resistance to the drug, a protein secretion that, through the stimulus of oral storytelling, enables them together to become a collective "superentity," smarter than the smartest individual among them (Coupland 355). And the stung ones first form their "hive mind" while holed up on Haida Gwaii—Pacific Northwestern American islands that are special in part because of their Galápagos-level biodiversity, as well as the continuous presence there across eight millennia of the Haida, a matriarchal tribal people—all the while observing the sudden, violent disintegration of tribal life that follows the not-so-coincidental importation of the new drug to the remote islands' Native community.

The optimist in the group muses that the bees orchestrated their stinging to prove to the world that their species will come back, but the fate of the Indigenous human community suggests that it is the last gesture in a mass suicide. When the remaining Haida gather ceremonially at the site of the world's last lost beehive to all take the drug together, one by one experiencing its alienating and addictive effects, they stage in human terms how a "hive mind" falls apart. In a near future in which honeybees' disappearance signals severe diminishments of global plant varieties and food

supplies, and consequently modern mobility, communication, and economic systems, *Generation A*'s most visible loss is a culturally specific, communal sense of connectivity shared by gynocentric animal and human communities, honeybees, and Haida.

Entomological accounts of swarming honeybees are revealing negotiations that operate in mirror-image patterns to the ways in which our own brains' neurons are increasingly understood as operating in conversation with each other, not following a chain of command as it was previously assumed. Political scientists embrace the new model of swarming as a more "lively" and accurate baseline for the "agentic assemblages" that constitute the vibrancy of social engagements (Bennett 31-32). But the novelists gathered here clarify that more than a metaphor is at stake in the conceptual swarm. As honeybees in fiction emerge as endangered communities not just like, but deeply entangled with, human ones, what they communicate about the biopolitical legacies of settler colonialism may not be so important as how they do so.

These fictions invoke the "hive minds" of honeybees as old ways of community self-sustainment focused on populations and operating across species lines. While optimism surges in media theory, too, around new swarm-like social forms such as flash mobs, their "alternative logics of thought, organization, and sensation" (Parikka xix) might be more directly harnessed by identifying mechanisms through which humans and other animals operate together as superorganisms, chief of which, according to Coupland's novel, is creative storytelling. The performance of "the power of the politically activated multitude, in the form of the swarm," (Chambers-Letson 109) then appears not so much an emancipatory guide as an affirmation of long-suppressed biopolitical potentials. "Hive minds" swarming their way through indigenous frictions in honeybee fictions might be exactly what is needed for the sake of all the species who depend on their flourishing.

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Wolves and Wolf Men as Literary Tropes and Figures of Thought: Eco- and Zoopoetic Perspectives on Jiang Rong's *Wolf Totem* and Other Wolf Narratives

Jiang Rong's international bestseller, *Wolf Totem* (Chinese original 2004, English translation 2009) is, like a number of other earlier narratives concerned with wolves which will also be discussed briefly in the following, of interest from both an ecopoetic and a zoopoetic perspective.

On the one hand, the novel can be read as an ecological *Bildungsroman*, recounting the protagonist's progression from fear of wolves and desire to exterminate them to appreciation of the part they play in maintaining the ecological balance in the grassland steppes of the Autonomous Region of Inner Mongolia. Engaging creatively and critically with the environmental challenges facing life on earth, and participating in the ongoing process of defining their ethical implications, it is patently of interest to ecocritics. Although the formal structures and techniques in *Wolf Totem* are neither complex nor particularly innovative, the novel is also an appropriate object for eco*poetic* study, inasmuch as it depicts ecological systems and processes including the human relationship with the natural environment in narratives, images, tropes and formal structures drawn from and adapting cultural tradition.²

¹ The novel has been the subject of three articles alone in *ISLE*, the flagship journal of studies in literature and environment: Cf. Varsava, He, and Hong.

While the term "ecopoetics" has been most often used for the analysis and theorizing of forms of poetry, it is equally applicable to prose fiction such as Jiang Rong's, nonfiction, drama, and indeed to cinema and art. Jonathan Skinner chose *Ecopoetics* as the name for the literary magazine which he edited 2001-2007, publishing avant-garde work that was "dedicated to exploring creative-critical edges between writing (with an emphasis on poetry) and ecology (the theory and praxis of deliberate earthlings)". (The programmatic statement is repeated in the front matter of each issue.) Skinner has written since, in a blog entitled "What is ecopoetics?": "For some readers, ecopoetics is the making and study of pastoral poetry, or poetry of wilderness and deep ecology.... For others, it is ... not a matter of theme, but of how certain poetic methods model ecological processes like complexity, non-linearity, feedback loops, and recycling.... Rather than locate a 'kind' of writing as 'ecopoetic', it may be more helpful to ... shift the focus from themes to topoi, tropes and entropologies, to institutional critique of 'green' discourse itself, and to an ar-

Rong's novel exemplifies a shift in the public perception of wolves which has taken place over the course of the twentieth century (perhaps later in China than in the West), whereby the role these animals play in wilderness ecosystems as top predators, preventing overgrazing by keeping the ungulate population in check, and thereby preserving biodiversity, has gained recognition and caught the public imagination. Once feared as ferocious beasts and reviled as rapacious enemies of humanity, wolves are increasingly perceived as handsome and impressive creatures whose survival is endangered by the loss of their habitat to agricultural and industrial development by an everexpanding human population. The wolf has joined the panda, the polar bear and the elephant as a symbol of disappearing species, a mark of our diminishing and impoverishing of the biosphere. Wolves have become objects of protection, reintroduction and management, exemplifying the plight of the animal kingdom in the age of man (cf. Marvin). One of a series of Chinese wolf narratives since the 1990s demonstrating the environmental turn in the nation's literature and public consciousness, Wolf Totem spells out the damage to the environment caused by Beijing bureaucrats seeking to increase agricultural production by eradicating wolves in Mongolia. It also describes the passing of a nomadic way of life, which was simple and harsh, but dignified and sustainable, and its replacement by a sedentary existence which, for all the comforts it affords, does not result in greater wellbeing, and is environmentally unsustainable.

However, Rong's novel also deserves attention from a zoopoetic perspective, i.e., one focusing on the conceptions of human and animal relations and human animality which it conveys, and the tropes and rhetorical structures through which it conveys them.³ The above reading of the book as a story of conversion from a thoughtless instrumental approach to nature to understanding the limits to growth and the fragility of ecosystems (cf. Varsava) ignores an important aspect of the work, one which would be more prominent but for the cuts made by its English translator. Rong advocates

ray of practices converging on the oikos, the planet earth that is the only home our species currently knows."

The term "zoopoetics" is, like "ecopoetics," a relatively recent coinage. Aaron Moe has restricted zoopoetics to the study of poetry, and defined it intriguingly (informed by recent research in biosemiotics) as "the process of discovering innovative breakthroughs in form through an attentiveness to another species' bodily poiesis" (11). He is above all concerned with the ways in which poets' engagements with the lives of animals yield formal poetic innovations. My understanding of zoopoetics is a broader one, relating to all forms of literary and artistic making, and merely requiring the presence of nonhuman animals as agents within narratives, images, or figures of thought.

wolfish ruthlessness as a model for human behavior and calls for a wolfish regeneration of the nation so as to equip China to triumph over its competitors in a Darwinian geopolitical struggle. The complex meaning of wolves in novels such as *Wolf Totem* and the ambivalent fascination they have exercised in modern culture call for critical analysis of the use of animals in images and narratives representing not only real animals and their lives, but also human behavior, human conflicts and dilemmas in animal form.

Rong's twenty-first-century Chinese novel draws on a tradition of realist wild animal stories portraying wolves as savage, but nonetheless idealizing their wildness, in whose shaping Jack London played a central role with his short novel, The Call of the Wild (1903). And it shares the curious fusion of diametrically opposed conceptions of nature as a desirable state of harmony and a site of internecine struggle for survival which we find in the early twentieth-century German narratives of wolves and wolf men by Hermann Löns and Otto Alscher. While this idealization of the wolf was by no means limited to Germany, it found especially clear formulation there in the "völkisch" (racist-nationalist) thinking and writing which was popular from the 1890s on, and which culminated in the National Socialists' fantasies of ruthless Aryan wolf soldiers in the Third Reich. Like London, Löns and Alscher, Rong combines realistic description of animal life worlds and behavior with a use of the wolf as a symbol for a quality of wildness which is perceived as under threat in modern civilization. While the mixed messages about wolves which Rong sends and the parallels between Wolf Totem and the work of Jack London have already been the subject of critical comment (cf. Lütkehaus, Kubin, Ma), neither the extent of what Rong shares with early twentieth-century animal stories, nor the role of the literary trope of "the wolf" in the striking domestic and international success of his novel have so far received closer attention.

Wolf Totem: Author, Story, Genre, Inspiration

The novel *Wolf Totem* is a fictional account of life in the grasslands of China's northern border region in the 1970s, which draws on the personal experience of the author. Rong's studies in Beijing were interrupted by the Cultural Revolution. To avoid being sent to the country and having to live under strict conditions in a military environment, he volunteered to work with the nomadic herdsmen in one of China's most backward regions, north-central Inner Mongolia in 1967. He was to spend eleven years there, before being

permitted to return to the capital, and eventually forging a career as a political scientist. Chen Zhen, the autobiographical figure on whom the action in *Wolf Totem* is focused, is the son of a man branded by Mao's Red Guards as a capitalist and "reactionary academic authority" (20). Alienated by the destructive ignorance of the Red Guards, he leaves Beijing with a group of friends in search of "primitivism and freedom" (34) in a part of Mongolia which is given the fictional name "Olonbulag."

The main story in Rong's novel concerns Chen's relationship with a wolf. During his time in Mongolia, the author became interested in the Mongolians' history and culture, including their veneration of wolves. According to the brief information "About the Author" included in the front material of the Penguin edition of Wolf Totem, he studied wolves and raised an orphaned wolf cub. From the novel's opening chapters, Chen is drawn to the animals' strength, cunning and ferocity. He steals a wolf cub from its den and raises it, justifying his actions as an experiment to study "scientifically" how wolves "think," and an opportunity to cross-breed the wolf with the Mongols' powerful guard dogs (166). But the wolf proves untamable. When it bites him, Chen is forced to clip its fangs: this results in an infection from which it never recovers. "Little Wolf" is dying slowly and painfully from injuries sustained struggling for freedom, and Chen eventually kills it to release it from its misery. Towards the end of the novel the reader is told that Chen began to write an account of his experiences in Mongolia as a way of dealing with feelings of anxiety and guilt over his removal of the wolf cub from its mother, and his failed attempt to raise and tame it (164, 388, 495). The manuscript he completes is written "with [the] blood" of the wolf cubs he has killed (521), out of "a deep sense of remorse" (523). This wolf story is set in the wider context of the author's experience of the environmental impact of population growth, mechanization and agricultural development in Mongolia in the 1970s. Towards the end of the novel, the short-sighted modernization policies of the Beijing authorities, which include the extermination of the Mongolian wolves, are held responsible, alongside overgrazing by farmers who have moved there from other parts of the country, for turning the once verdant prairies into a barren landscape.

Wolf Totem embraces elements of different genres. Among its most memorable features are gripping accounts of terrifying encounters with wolves, but the book is also a poetic evocation of the vast landscape of Mongolia. Bloodthirsty wolf attacks contrast with moving elegiac passages on the loss of the region's pristine plains, hills and lakes. The autobiographical narrative, which includes humorous episodes from Chen's experiences with the

wolf cub, is interwoven with ethnographic information about the Mongol shepherds' tough but independent way of life, and ethological observations on the behavior of the grassland animals. Rong also criticizes the government's treatment of the environment in openly didactic passages and calls for political change.

When Rong left Beijing for Mongolia, he was able to bring with him boxes containing some 200 banned books which he had hidden away in the course of the Red Guards' purges of Beijing's public and private libraries. Alongside Chinese classics and works on Mongol history, these included the novels of Balzac, Pushkin, Tolstoy, Sholokhov, Jane Austen, and Jack London (writing which was considered at the time to promote bourgeois decadence, imperialism and "old thinking"). In Wolf Totem, Chen is mentioned as reading London's novels, The Call of the Wild (394) and The Sea-Wolf (310). Inspired by London's wolf/dog narrative set in the frozen North of Canada at the end of the nineteenth century, and by his striking portrait of the tyrannical Captain Wolf Larsen, who personifies "wolfish" qualities, Wolf Totem transfers elements of his thinking to China's wild north in the 1970s. Before examining London's influence and the tensions and contradictions his novels share with Rong's book, it is worth considering Wolf Totem's ecological message in greater detail.

Lamenting Loss and Environmental Apocalypse

In the 1970s the government imposed increased production quotas for Mongolian lamb and beef, and sent people to Mongolia to open up new farmland to feed China's growing population. This intensification of agricultural production brought to an end sustainable stock raising as practiced by the nomadic Mongols in the region, and it deprived the native herds of gazelles, and the wolves which preyed on them, of their natural habitat. In *Wolf Totem*, army officers who have been sent to oversee agricultural development wipe out the gazelles, which they see as stealing the grass needed for horses and sheep, and hunt down the wolves, using assault rifles and machine guns. They seek to protect the valuable grassland from the resulting explosion of marmots, field mice, rabbits, and ground squirrels by spraying poison, disregarding the fact that this will also kill off the remaining wolves, foxes, and hawks. The second half of the book alternates in tone between lament over the disappearance of the wild animals and plants of the prairies (wolves,

⁴ For more on these developments and their wider context, cf. Shapiro and Williams.

marmots, wild geese, grey cranes, hawks, larks, orchids, water lilies), and increasingly strident apocalypticism: "Now that the age of tractors had arrived, a conflict between those who lived off the grassland and those who lived by leveling it was nearing its end game" (419, cf. also 376).

In the book's Epilogue (505-24), Chen returns to the grasslands twenty years later to find that the people he knew are now living more comfortable lives, having abandoned their yurts for permanent houses, with electricity and TV. But the prairies he knew have become a dustbowl. "The system" is blamed, with its damaging pressure to overproduce for unnecessary consumption (509). Extermination of the Mongolian wolves is presented as a key part of this misguided policy. The book ends with the news that 80% of the Olonbulag pastureland is now barren, and a sandstorm shrouds Beijing in suffocating dust, echoing an earlier passage in which the wise old Mongolian shepherd Bilgee had prophesied: "if the grassland dies, so will the cows and sheep and horses, as well as the wolves and the people.... Then not even the Great Wall, not even Beijing will be protected" (233-34).

Bilgee has served as Chen's mentor, teaching him the "ancient logic" (45) that the grassland is the "big life" on which the many "little lives" of the plants, animals and people depend for survival. The taboos of Tengrist religion, which combines elements of pantheism and animal totemism, also play an important role in the Mongols' relationship with the natural environment. Environmentally damaging action is repeatedly associated with the violation of custom and religious taboo. In some passages in the novel (e.g., 92, 94), the god Tengger is presented as an avenging Gaia, taking revenge on greedy humans in the form of wolf attacks and storms. Towards the end of the book, indigenous ecological wisdom and religious prescription are increasingly accompanied by passages reflecting scientific knowledge of ecosystemic relations. The grassland is described as "a complex place": "Everything is linked, and the wolves are the major link, tied to all the others. If that link is removed, livestock raising will disappear out here. You can't count all the benefits the wolves bring, [which are] far greater than the damage they cause" (238). This reflects the new understanding of wolves which has emerged in the course of the twentieth century as creatures ensuring the stability of ecosystems by regulating the population of other species. Markers of a rapidly diminishing natural environment, wolves have become charismatic animals, imbued with the spirit of a newly valued wilderness (Marvin 159). However, the ecological function of wolves is, as already indicated, only one aspect of the complex animal trope in the novel. Wolf *Totem* also uses wolfish nature as a model for social and political relations.

The Ambiguous Political Orientation of the Chinese Original

Wolf Totem combines elements of political dissidence (support for greater democracy and freedom) with calls for a regeneration of Chinese society through open competition and strong leadership. The novel's critical edge can be seen clearly through contrast with its adaptation for the cinema, a Chinese-French co-production filmed in Mongolia and directed by the well-known French specialist in animal films, Jean-Jacques Annaud. Annaud's 2015 film predictably conformed to Hollywood practices, inasmuch as it compressed and dramatized the action, added a romantic interest, and worked with a lavish visual aesthetic, accompanying long shots of the stunning landscape with sweeping orchestral music. But it also elided the book's dissident politics, by altering the dialogue, changing details of the story, and focusing attention on the appealing wolf cub. Rong takes the Party to task for seeking to lay the blame for "natural" disasters on individuals, denouncing them as counter-revolutionaries so as to distract from the environmental consequences of its policies (cf. especially chapter 13). When the official Bao Shungui plans to rid Mongolia of its wolves, Bilgee intervenes to save the cult animal of his people, and Chen supports him (90-91). In the film, however, it is Party officials who voice ecological concerns. The grim specter of desertification is omitted, and the story ends happily with Chen releasing the wolf into the wild, rather than having to perform a mercy killing.

From time to time, Rong, who had been imprisoned and narrowly escaped the death penalty for his involvement in political protest in the 1970s and 1980s, and therefore kept a low profile after the publication of his novel, has broken silence in interviews with Western journalists, in which he has expressed critical reformist views. In 2008, for instance, he said:

The most important thing in life is the capacity to be free.... That individual freedom doesn't just include the freedom to make money. It includes the freedom of speech, the freedom of organisation.... On the grasslands and within the nomadic people, I discovered the freedom gene within Chinese society.... The Wolf Totem is the Chinese Statue of Liberty. (Hill)

However, the political implications of Rong's wolves are not democratic in the sense of protecting individuals against abuses of state power, or ensuring good governance through checks and balances. Nor do their economic implications include ensuring a life in dignity for those worst off in society. Rong's book found admirers among the officer corps of the People's Liberation Army and was handed out by corporate executives as a motivational tool. In a *Spiegel* article (Kremb), the *Süddeutsche Zeitung*'s China correspondent, Kai Strittmatter, is cited as claiming that far from serving to democratize China, the book provided an ideological template for the country's "Latin Americanization," i.e., its transformation from a communist dictatorship to a fascist government.

The discrepancy between this understanding of *Wolf Totem* and its general reception in the West as a critical environmental and politically "progressive" novel is explained in part by the extent to which, as the Sinologist scholar and translator Wolfgang Kubin has revealed, the American translator Howard Goldblatt adapted the text to the Western market, excising passages containing "awkward political and historical thinking" (Kubin 220). The single most significant change is that the English version lacks the Afterword in which Rong spelled out a political message which Kubin describes as "totally outdated in a globalised world that practices cooperation rather than adhering to the principle of 'the survival of the fittest'" (221). Rong espouses a form of radical authoritarian nationalism in which strong leadership is endorsed, and political violence and war are sanctioned, to address the nation's perceived geopolitical weakness. This political ideology is inseparable from his conception of "wolfish" nature, which was, for all the references to Mongol tradition, principally inspired by Jack London.

The Cultural Meanings of Wolves, and the Influence of Jack London

Garry Marvin's concise but illuminating account of the cultural meanings of wolves shows how wolves have traditionally been regarded (with fear) as dangerous, vicious beasts, greedy ("wolfing" down their food), murderous and evil. But at the same time, they have been viewed with admiration, as powerful, where necessary aggressive, cunning, and resilient. They have therefore paradoxically served as positive role models for hunters and warriors. In Rong's novel, the nomadic herdsmen defend themselves and their sheep and horses against the attacks of wolves, and hunt them periodically, but they live in a symbiotic relationship with the wolves, participating in a delicate ecological balancing act, in which limited losses of livestock are accepted in return for the benefit which the wolves bring by preventing the herds of wild gazelles and smaller grass-eating animals from becoming too

⁵ Cf. also Ma's characterization of Goldblatt's work as "translation-cum-retelling" and "radical rewriting" (76, 88).

numerous. Leaving aside this benefit to the environment, Rong's wolves are distinguished by three qualities: first, ferociousness; secondly, fearlessness and indomitable freedom; and thirdly, a bundle of related positive attributes including loyalty to the pack, discipline, intelligence, patience, and supernatural shrewdness. Wolves and humans behaving like them are presented by Rong as an antidote for the ills of Chinese society. His conception of reinvigoration through "return" to wolfish wildness draws, via Jack London, on Social Darwinism and Nietzschean thinking, which enjoyed wide currency at the beginning of the twentieth century.

Like the late nineteenth-century realistic wild animal stories of Ernest Thompson Seton and Charles G.D. Roberts, London's *Call of the Wild* combined animal fiction with elements of nature writing (cf. Lutts) and presented the natural and social worlds from the perspective of the animal. The story drew on the author's experiences as a prospector in the Klondike gold rush of 1896-99. Kidnapped from a Californian estate, brutalized and sold as a sledge dog to gold prospectors, the dog Buck is plunged from a "lazy, sunkissed" life of leisure in the "Southland" into a raw struggle for survival in the hostile, frozen "Northland." "Jerked from the heart of civilization," he is "flung into the heart of things primordial," where there is "no law but the law of club and fang" (17), and morality is "a vain thing and a handicap in the ruthless struggle for existence" (27-28). He is saved by a kind soul, but following the death of his beloved master, he joins a pack of timber wolves, and the story ends with him ranging the wilderness, free at last.

Despite London's patent sympathy for the (literal and metaphorical) "underdog," The Call of the Wild celebrates the right to leadership of the "dominant primordial beast" (51): "Kill or be killed, eat or be eaten, was the law" (93-94). It contains vivid descriptions of ferocious fights between dogs which endorse murderous violence: "Buck got a frothing adversary by the throat, and was sprayed with blood when his teeth sank through the jugular. The warm taste of it in his mouth goaded him to greater fierceness" (34). London sees humans as sharing this blood-lust, writing of a "stirring of old instincts" which drives men to hunt. The "joy to kill" is described as an "ecstasy that marks the summit of life," which "comes when one is most alive" (46). The thrill of excitement associated with the bloodthirstiness of wolves in Wolf Totem is no less problematic. In a particularly graphic scene, a herd of horses is attacked by "forty to fifty" wolves who are crazed with hunger. "The herd was being decimated; blood stained the snow on the ground. The merciless grassland was once again a backdrop to ruthlessness, as it had been for thousands of years," Rong writes (76). A later scene borders

on Gothic horror in its depiction of the suicidal assault of female wolves who had been robbed of their cubs: "They leapt onto horses, sinking their fangs into the tender spot below the shoulder, then hung there heavily, willing to sacrifice their own bodies." The wolves are "obsessed with vengeance, staring death calmly in the face, devoted to the cause, merging blood and milk" (80). Jian Rong's novel thus perpetuates a cultural tradition in which fear and revulsion yield to admiration of wolves' single-mindedness, strength and endurance, and morph into identification with them as role models.

The Wolf as Totem Animal in Jiang Rong's Novel

The Mongols in Rong's novel see the wolf as a worthy rival to man, embodying courage, strength and wisdom (98-99), and themselves as living a way of life akin to it. Proud descendants of Genghis Khan, they believe that the military tactics which facilitated his conquests in the twelfth and thirteenth centuries were learned from the cunning and ruthless hunting behavior of wolf packs. As an emblem of the Mongolians' nomadic, meateating, freedom-loving way of life, the wolf is contrasted with the dragon, symbol of the sedentary Han, crop-raising culture and bureaucratic political structure. But it is more than that. Wolves, which are elevated to the status of quasi-divine agents of Tengger ("protective spirits of the grassland" [22], carrying out his will [94]), are presented as totemic animals, the Mongols' "ancestors" and spiritual alter egos.

Belief in the possibility of acquiring the strength, speed and sharper senses of the totem animal is found in many cultures, and probably underlies the notion of lycanthropy (i.e., the metamorphosis of humans into wolves). Werewolves are usually images for the "beast within us," externalizations of our wild and monstrous inner selves, capable of living out impulses and desires without regret or remorse. In contemporary popular culture they are frequently sexually charged, but originally, they were above all warriors (cf. Tuczay). In modern times, paramilitary groups have associated themselves with wolves to appropriate their qualities of single-mindedness and unchecked aggression, justifying acts of violence and cruelty in the name of a supposedly higher ideal.

 $^{^6}$ Cf. also the passage 425-26, which similarly invites approval of the wolves' savagery. Wolf hunting behavior is described throughout the book in military terms.

Eating the animal's flesh and drinking its blood are also encountered in many cultures as ways of appropriating its vitality. In Jack London's story, "Love of Life," a starving man close to death accesses reserves of energy which enable him to survive by eating a wolf and drinking its blood (157). In Wolf Totem, we are told that Chen, who is by now "bewitched" by the grassland wolves, understands why Lenin asked for this story to be read out to him on his deathbed (267). By the end of the book, Chen comes to revere the wolf as his personal totem. In The Sea-Wolf (1904), London had depicted Wolf Larsen as a demonic, superhuman figure living out unbridled instincts. Despite the negative presentation of his behavior, he is a larger than life figure who clearly fascinates his author, akin to the "blond beast" of Nietzsche's On the Genealogy of Morality. For Rong, as for London, the transformation of man into wolf stands for the release of a suppressed inner nature, a wildness and animality banished from modern civilization through both emotional control and religious and social codes.

While wolves and wolf men are the principal manifestation of the "animal" trope in Rong's novel, forms of hybridity also play a role, as expressions of the possibility of a halfway house between wildness and civilization. On the literal level, it is present in Chen's hopes to breed his wolf pup with a bitch from the litter the pup grew up with. The plan is, however, frustrated by the young wolf's untamable nature. On the level of human relations, Rong appears more optimistic. He contrasts Mongols, as a wolf-like race living a free life of primitive simplicity close to nature, with Han Chinese, who are depicted as docile, domesticated "sheep": after "generations of being raised on grains and greens," the "stupid, fat" and "gutless" Han have "lost the virility of their nomadic ancestors" (9, 11, 23). Rong's language is that of essentialist ethnic identity, but he muses on the question whether effete modern (Chinese) society can be reinvigorated by "a transfusion of roiling wolf blood" (494), and hints at a more down to earth way of reinvigorating the Han, through intermarriage with nomads.

These metaphors of canine and human ethnic hybridity are bolstered by a botanical image. Rong reflects on whether a "wolf totem sapling" might be "grafted" onto the ailing Confucian national character (377) and suggests that nomadic wolfishness might be combined with Confucian traditions of pacifism, its emphasis on education and devotion to study. The trajectory of the narrative makes success seem unlikely, for the impending demise of

⁸ Hybridity had already featured in Jack London's White Fang (1906), a sequel to The Call of the Wild, in which Buck's trajectory from domestication to life in the wild is reversed.

the old way of life in the Olonbulag is doubly prefigured in the fate of the wolf cub and the death of the old man Bilgee, as a result of injuries sustained from triggering a concealed explosive set by army officers to kill wolves. The extermination of the grassland wolves leaves behind a world of "dejection, ... withering decadence and boredom, and other more terrifying foes of the spirit, obliterating the masculine passion that had characterised [the inhabitants of the grasslands for thousands of years." After the disappearance of the wolves, the narrator comments that "the sale of liquor on the Olonbulag nearly doubled" (494). However, this bleak prospect is intended to mobilize readers to realize the author's vision of a China made great again. Rong spells out his political views most directly at the end of the Chinese edition, where the narrative is followed by a sixty-four-page appendix, entitled "Rational Exploration: A Lecture and Dialogue on the Wolf Totem." But they are also to be found in certain passages in the English translation of the novel. For instance, we read that "a people who adopted the wolf's temperament and made it their totem-beastly ancestor, god of war, and sage—would always be a victorious people" (219). There is a striking similarity between this problematic vision of political and cultural renewal and early twentieth-century German wolf and wolf-man narratives written in the context of "völkisch" thinking (racist-nationalist conservatism).

Parallels with German Wolf Narratives in the Early Twentieth Century

One of the best known of these wolf tales is the historical novel, Der Wehrwolf (literally, "The Defender-Wolf," but at the same time a homonym of "werewolf") published by Hermann Löns in 1910. Löns is remembered as "father of the German animal story," and as "poet of the Lüneburg Heath," and for his idyllic scenes of traditional rural life in an idealized German homeland. Hailed by the Nazis as a precursor (he died already in 1914), and subsequently vilified as "pre-fascist," he has nevertheless remained in print for the past century. Löns' breakthrough to a wider readership came with Der Wehrwolf. This tale of the aggressive self-defense of a peasant community against marauding soldiers in the Thirty Years War was a militarized and racialized version of turn-of-the-century vitalism, endorsing the breakthrough of destructive bloodthirsty instincts suppressed by civilization, and celebrating vigilante violence. Löns, who admired London and arranged for publication of *The Call of the Wild* in German in a translation by his wife, shared many of London's views. He opposed city life, industrialization, intellectualism and internationalism, and sought social renewal through a return

to nature, country life, local traditions, the feelings and instincts. His critique of modernity and proposed alternative have the same ambivalent quality as London's: the self-assertion of the peasants in *Der Wehrwolf* is coupled with graphic scenes of violence, and although this is justified as self-defense, it takes on, as Thomas Dupke notes in his study of the author, a dynamic which sweeps away any scruples or notions of mercy (127-131). *Der Wehrwolf* was a source of inspiration for the right-wing paramilitary groups which proliferated in the years after Germany's defeat in the First World War and sought to undermine Weimar democracy.

A second wolf-man narrative reflecting the stance of the national-conservative right in the early 1920s is Ernst Wiechert's novel, Der Totenwolf (The Death Wolf⁹ of 1924. It tells the story of a soldier, Wolf Wiedensahl, who has been discharged from the army, and desperately seeks to revive the spirit of the nation through suicidal acts of violence. 10 Otto Alscher (1880-1944) is, however, the German author whose treatment of the wolf trope prefigured Rong's most closely, inasmuch as it already combined the Social Darwinist cult of aggressive nationalism and authoritarian politics with elements of a conservationist ethos and concern for the survival of wolves as a species. Alscher lived in the mountainous Carpathian Banat, a German-speaking area of the Austro-Hungarian empire which fell to Romania after 1918. The short realistic wild animal stories which he specialized in are unsurpassed in their evocation of the landscape and precise observation of the lives and behavior of animals, including wolves, with which he had frequent contact. As a young man, Alscher hunted wolves, but he learned to live with them. The title of his 1917 collection of stories, Die Kluft: Rufe von Menschen und Tieren (The Gulf: Cries of Men and Animals) alludes to the divide separating humans from animals, but the stories suggest that wild animals possess a wisdom we lack and that we can learn from them. Writing at a time when a proper understanding of the ecosystemic role wolves play as keystone predators had yet to develop, his acknowledgement of the right to life of the wolf, and of the lynx, with which he came to identify more in the 1930s, resulted principally from dubious fascination with their ruthless will and survival instinct. Passages such as the following in "Der Marder" ("The

⁹ Here and in the following, translations of German titles are my own.

The link between wolfishness and aggressive nationalism is, however, notably absent in the German wolf-man story of the time which found an international readership, Hermann Hesse's novel, *Steppenwolf* (1927–the title, which is the same in English, alludes to the "steppe wolf," or Caspian Sea wolf).

Marten") reflect a concern with animality, instinct and the will to power at the expense of humanity and morality: "Is there anything more splendid than the will to power? The will to violence, to overpower others, to cruelty if need be, so long as we only exercise it in the knowledge that we could suffer it ourselves, and it is a test of our strength against others." (Alscher, *Die Kluft* 20-21) There is a direct parallel here with the fantasies of strength, self-sufficiency and strong leadership in *Wolf Totem*. However, Alscher also pleads for co-existence with wild animals, including predators. In the story "Der Fremde" ("The Stranger"), 11 he calls explicitly for tolerance regarding the loss of livestock to wolves. As in *Wolf Totem*, the clashes between humans and animal predators in Alscher's writing result from a growing population and economic development encroaching on their habitat.

A further parallel between Alscher and Rong lies in their conception of ethnic outsider groups as animal-people characterized by the intuition and instinct needed to reinvigorate an ailing society. The role of Gypsies in Alscher's novels Ich bin ein Flüchtling (I am a Refugee) of 1909 and Gogan und das Tier (Gogan and the Animal), published in 1912, is not dissimilar to that of the Mongols in *Wolf Totem*: associated with vitality and sensuality, they live a life free of material considerations and social conventions, close to nature and in tune with their feelings and bodies. Gogan und das Tier explores the possibility of a reconciliation of civilization with wildness, reason with instinct, through the story of the illegitimate offspring of a Hungarian countess and a travelling Gypsy. Gogan searches for his father in order to rid himself of the "curse of animality" which he has inherited (112). However, he comes to accept what he owes to his father, and to work to "grasp and transfigure" the animality within him (113). Rong similarly acknowledged the need to temper wolfishness with "sheep" nature in an interview in 2008, in which he defended *Wolf Totem* against the charge of fascism. Equating wolfishness with neoliberal capitalism in a world of cutthroat Social Darwinist economic competition, he stressed that "wolves have two sides. I think that capitalism is exactly like a wolf-it's also two-sided.... Wolf Totem is about the good side of the wolf..." He went on to claim: "I observe critically in my novel that a too-strong wolf spirit led to the Cultural Revolution (1966-76) and the creation of the Red Guards. So I don't advocate at all an absolute wolf spirit" (Messmer and Chuang).

¹¹ Alscher, Die Kluft 34-60. Cf. Goodbody 199-200.

Muddled Thinking and the Ambiguity of the Wolf Trope

Wolf Totem has come in for criticism as a work compromised by weaknesses of form, factual inaccuracies and confusion of thought. In terms of form and style, the book suffers from repetition, characters who lack psychological depth and development as well as wooden dialogues. In terms of factual accuracy, doubt has been cast on whether the wolf has played the central role in Mongol culture which Rong ascribes to it (cf. Hong 7-8). More importantly, the extermination of the wolves in Inner Mongolia is not generally recognized as a root cause of the region's desertification. Population growth, intensification of farming, and economic development have rather been the main factors, and Rong misleadingly restricts the long history of Mongolian environmental deterioration to the period from the 1970s on. Wolf Totem exaggerates the ecological impact of the wolf, just as it does the cultural superiority of the Mongols in terms of ecological consciousness.

The aspect of the book which has received the most vehement criticism is, however, its "muddled" political thinking (cf. Ma 84-86). At different points, wolfishness stands for a back-to-nature retreat from modernity and an embracing of neoliberal economics which reinforces modern materialism; it is the vitalist amorality required for survival in a harsh social environment and at the same time promotes subordination of the individual to the collective; it is both libertarianism and socialism. The author's stated aim to promote democratic freedom and self-determination is undermined by his Social Darwinist conception of society and its authoritarian implications. His orgies of Dionysian bloodthirstiness present as "true" nature a wholly unacceptable yardstick for human behavior. And Rong offers no coherent answer to whether or how the new might be reconciled with the old, wolves with sheep, the Han with China's ethnic minorities, culture with nature. It is, however, worth noting that while Rong's philosophy of revitalization through return to the wild continues impulses behind the Cultural Revolution (Maoist antipathy to bourgeois society, regard for a simpler form of life, and violent proclivities), he realigns wildness, strength and instinct with respect for ancestors, cultural traditions and even religious practices.

Conclusion: Animal Stories and Tropes as Objects of Ecopoetic and Zoopoetic Study

My aim here has not been political, but literary analysis. *Wolf Totem* was a sellout in China (the official print run exceeded four million copies, and a greater number of pirated copies are said to have been in circulation) and became an international bestseller. The novel owes its success not least to the fact that, far from merely being a product of Chinese political thinking at the beginning of the twenty-first century, it belongs to a long lineage of wolf narratives, in which the inherent polysemy of the trope appeals to a broad readership, its different meanings resonating with diverse anxieties and fantasies. As a literary figure, the wolf is thus able to combine the seeming opposites of emancipatory self-empowerment and violent oppression, individual self-assertion and subordination to the collective good.

If one considers Wolf Totem's formal properties, the novel has been aptly described as a work of "environmental sentimentalism" (He 2014): it is an emotionally charged narrative, arousing empathy with nature and animals in order to foster moral disapproval of damage to the environment. The presence of wolves is referred to at one point as an "ecological index to the existence of the grassland" (509), prompting reflection on the applicability of Charles Sanders Peirce's triadic categorization of signs as iconic, indexical and symbolic, according to the nature of the relationship between the sign-vehicle and the object it represents. In iconic signs, the signifier bears a physical resemblance with the signified: this is the kind of literary mechanism with which Aaron Moe's conception of zoopoetics is principally concerned. Rong's zoopoiesis does not make use of such signs. His narration of the ecological tragedy through the story of the extinction of wolves is rather an indexical technique, inasmuch as the demise of wolves points to, or indexes, the wider process of loss of biodiversity and environmental degradation which it represents—as smoke may index the presence of a fire, by means of its spatio-temporal proximity to the entity signaled. However, the novel works, like much other fiction, above all with symbols, that is, with signs neither related to their objects by virtue of qualitative likeness nor cooccurring with them. Symbol of an alternative way of life, the wolf totem is ultimately a culturally determined sign.

Wolf Totem merits ecopoetic examination on the one hand, because of its depiction, through a semi-autobiographical narrative of awakening to ecological understanding, of the human/ nature relationship in Mongolia and its exploration of the reasons for the region's environmental deterioration. On

the other hand, it has rewarded consideration from a zoopoetic perspective, assessing its deployment of wolves and other animals as figures of thought for human behavior and collective identity. Focusing his novel on wolves and wolf men meant Rong was able to draw on a complex literary trope which critiques modernity's instrumental reason and domination of other species and figures the repression of our own animality as well as the need to overcome our alienation from nature and our own bodies. In this sense, *Wolf Totem* makes a valid contribution to cultural self-renewal, not only in China. Work examining the representation of animals and analyzing conceptions of human-animal relations in literature, film and art has until recently only been loosely connected with ecocriticism. My discussion of Rong's novel has sought to explore the ability of simultaneous reading of animal narratives in both ecopoetic and zoopoetic perspective to draw together insights from the two fields of research.

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Empathy, Violence, and Guilt in a Girl-Chimp Experiment: An Analysis of Human-Animal Relations in Karen Joy Fowler's Novel *We Are Completely Beside Ourselves* (2013)

The relations between human and nonhuman animals have long been dominantly conceptualized in dichotomous terms. The current discussion of animal rights and the criticism of the ascription of epistemological and ontological privilege to human animals, known as speciesism, are essential themes of critical and cultural animal studies. According to the dichotomous view of human-animal relations, a categorical border separates humans, who are seen as moral subjects with personal rights, and whose internal life is psychologically accessible, and animals, some of whom can be companions, but who always have a lower (or no) legal and cultural status, and whose minds remain inaccessible. However, literary texts have been challenging such a strict animal/human divide, and respectively, a nature/culture dichotomy for a long time. A particularly powerful example is Franz Kafka's narrative A Report to an Academy (1917), in which the liminal figure Rotpeter narrates the rapid "evolution" from ape to human as a process of perpetual violence that mutilates body, mind, and soul: For Rotpeter "the arrival in human culture is only possible through the separation from nature" (Neumeyer 391) and implies "an act of violence" (393). With the ape's painful search for a means to escape from confinement, Kafka's text subverts the categorical boundaries between animals and humans, and questions cultural und institutional structures in which the distinction is embedded. Of course, the text can be read both ways: Humans are also natural, and animals are also cultural beings.

Remarkably, the relationship between humans and primates has been the topic of three recent and widely celebrated novels: Karen Joy Fowler's We Are All Completely Beside Ourselves from 2013, shortlisted for the Man Booker Prize in 2014, Ulrike Draesner's Sieben Sprünge vom Rand der Welt [Seven Leaps From the Edge of the World], nominated for the German Book Award in 2014, and Bettina Suleiman's début novel Auswilderung [Return to the Wild], also published in 2014. Draesner's entertaining fictional novel puts the nonaggressive but notoriously sex-seeking bonobos center stage, and deploys the perspectives of a retiring primatologist and his three-generational family. Suleiman's novel follows the complex and often unforeseen difficulties

of an attempted reintroduction of domesticated gorillas into the wild. In contrast, Fowler's novel—the most subtle, enthralling, and compelling of the three books—explores the liminal space of nature/culture as a recovery from trauma, told as a quasi-autobiographical narration focusing on Rosemary's time at UC Davis where she studied Literature as a twenty-two-year-old. Rosemary works through the suppressed loss of her chimp "twin-sister" seventeen years earlier. The first-person narrator addresses a peer—maybe the reader, maybe a fictional other—in a colloquial and intimate tone. The text combines a close description of feelings, compassion, and grief with elaborate reflections on animal experiments, animal welfare, and animal rights. Portraying a high level of moral reflection on inter-species relationships, the narrator investigates and articulates in depth her own part in the violence against animals, who are not even protected when perceived as a beloved "sister" chimpanzee.

As Gisli Palsson stated in 2014: "Chimpanzees seem to occupy a special position in recent writing on the nature/culture divide, as a liminal species at the main border of modernist discourse" (166). Fowler's We Are All Completely Beside Ourselves negotiates the permeable boundary between human beings and animals with regard to their closest biological relatives, i.e., primates, and particularly chimpanzees. The novel is also inspired by the famous real-life experiment of the Kellogg family, who in 1931 tried to raise a baby-chimp like a human, along with their own child. This experiment was soon terminated when the Kelloggs observed that their infant son began adopting chimp behavior. In contrast, the fictional experiment in Fowler's book lasts five years and the final separation from the chimp has a lasting destructive impact on the whole family: The father, whose scientific reputation is destroyed, becomes a problem drinker; the brother turns into an underground animal activist and joins the Animal Liberation Front (ALF) after he finds out that his chimp sister has been deported to an animal laboratory; the mother becomes depressed; and the daughter cuts herself off from the memory of the episode that led to her "twin" sister's loss. The book explores numerous subtle similarities and differences between humans and chimps and thereby challenges the hierarchal and dichotomic model of human-animal relationships.

The paper will proceed in three steps. First, I will address four current concepts that explore the relationship between humans and apes. I will then

¹ Cf. the interview with Karen Joy Fowler: karenjoyfowler.com/we-are-completely-beside-ourselves-qa/. Web. 20 Aug. 2016.

explain Kellogg's experiment as an eminent background to Fowler's novel. Finally, I will analyze the main plot of the novel, which unfolds when the main protagonist realizes her own role in the disappearance of her chimp sister Fern, and I will discuss the novel's contribution to current critical debates about human-animal relationships and animal rights. Focusing on the complex human-animal entanglements, the article examines an ecozoopoetics which features the transition of interspecies companionship and togetherness to human superiority and instrumental asymmetry and thus narrates an environment that brings about (non-)human trauma and loss.

Humans and Animals: Reflections on an Ambivalent Relationship

In a compact article on humans and apes, the German Studies scholar Gerhard Neumann discusses the boundary between nature and culture. Conceptualizing nature as a performative process of semantic production, Neumann (94-99) distinguishes three positions: The first position is comprised of behavioral research on the development stages of primates. An example is Frans de Waal's book The Ape and the Sushi Master (2001), which analyzes primates as evolutionary descendants of humans and demonstrates that humans are not the only species with a culture (Laland/Galef). The second position is articulated by Giorgio Agamben in his book *The Open:* Man and Animal (2003), where he develops a theory of the "anthropological machine," a perpetual set of discourses, practices, and techniques employed to (re-)produce the construction of humans in contrast to animals dealing with inclusions and exclusions of what is considered human and nonhuman. The third position has been proposed by Benjamin Bühler and Stefan Rieger in their book Vom Übertier. Ein Bestiarium des Wissens (2006)-roughly translated as On the Über-Animal. A Bestiary of Knowledge. This study considers animals as figurations of knowledge [Wissensfiguren]; the "Über-Animal" serves as a condition to enable speaking about nature and culture, about humans and machines, and as a paradigm of human incompleteness. While the primatologist de Waal aims to minimize the difference between humans and apes in emphasizing their common origin, Agamben stresses the power relations between humans and animals as a narrative of cultural force, and considers the descent of humans from animal ancestors as a strategy of biopolitics. For Agamben, the distinction from "the" animal constitutes what a human being is and does (Borgards 239). By contrast, Bühler and Rieger emphasize the deficits of humans in comparison to animals; it is a reversed

view on the same relationship pointing at the use of the animal as a medium of knowledge. Neumann regards the long history of attempts at drawing a boundary between nature and culture as the history of an "identity shock" in the face of otherness. According to Neumann, the fundamental experience of otherness is the paradigm for human self-conception in modernity (101). From this perspective, looking at animals appears to be an experience of otherness that mediates human self-construction and self-understanding.

While de Wal stresses the similarities between humans and apes-e.g., in contrast to primatologist Michael Tomasello who emphasizes the differences (cf. the overview by Laland/Galef on the contentious question of similarities and differences between animal and human cultures)-Agamben and Bühler/Rieger reconstruct not only how humans have defined (and still define) themselves as clearly distinct from animals, but also highlight the constitutive function of animals for humans. Neumann's list of arguments has to be complemented by a further important position that has been developed by Donna Haraway (cf. also Bekoff) and which turns the attention to the mutual relation between human and nonhuman animals. In her book When Species Meet (2008), Haraway develops the idea of "companion species" by emphasizing the practice of "becoming with" as the condition of "becoming worldly" and shaping an "alter-globalization," a peaceful and fairer globalization (3). She assumes that all creatures constitute themselves through interactions: They form figures through "material-semiotic nodes or knots in which diverse bodies and meanings coshape one another" (4); their identity is the result of the "dance of world-making encounters" (249). Instead of regarding nature as an object of scientific and philosophical observation, Haraway stresses the interdependency of human culture and nature, or what she calls "natureculture" (2) in her book The Companion Species Manifesto (2003). Here, she shares the theoretical outlook of Bruno Latour's science and technology studies. Humans appear as part of a mesh of interactions and intra-actions with other species and agencies. By exploring the history of relations between people and dogs, Haraway demonstrates that "dogs are fleshly material-semiotic presences in the body of technoscience" and "[t]hey are here to live with" (5). She describes her personal involvement and the situational mutual transformations integrating her own experiences with those of her dog, Ms. Cayenne Pepper. In criticizing Derrida's reflection on his shame in reaction to his cat's gaze, Haraway turns the attention to relationships of response and mutual respect that, for her, are the conditions of understanding animal intentions. A zoopoetic perspective allows for an analysis of the variegated representations of interspecies relationships and

takes into account both (non-)human agency as well as the preconditions of (non-)human boundaries and limitations.

Coming back to Fowler's novel We Are All Completely Beside Ourselves, it appears that the main protagonist Rosemary has been an attentive reader of Haraway, using Haraway-congruent vocabulary when describing the intimate relation to her chimp-sister Fern. Rosemary regards Fern as a responding companion whom she believes to understand. But there is also a harsh split that had separated the two. When the twenty-two-year-old Rosemary is confronted with her brother's accusation that she was guilty of Fern's separation from their family, she begins to recall the experiment and its "premature and calamitous end" (99). In the course of the narration, Rosemary concludes that her life is divided in two—the time with Fern and without Fern. As the process of remembering is not linear, neither is the narration, going back and forth, spiraling and zigzagging towards the moment when the "twin sisters" got separated. Piece by piece, Rosemary reconstructs the emotional impact on the family and the "shadow of grief" (Charles) that the events have left-and this includes the grief of caged Fern as the reader realizes at the very end of the book when Fern and Rosemary face one another through the separating glass of the cage (308). By exploring the apes as a liminal space, the book refers to former experiments, particularly that of the Kellogg's which meant to compare the development of humans and chimpanzees, but focuses on the emotional impacts on all involved members of the experiment.

Variations of the Kellogg's Experiment in Fowler's Novel

Winthrop and Luella Kellogg, comparative psychologists at Indiana University, cross-fostered their son Donald and the chimpanzee Gua in 1931 in order to compare the development of their emotional behavior and language acquisition. After nine months the experiment was stopped when they observed that their son had adopted animal behavior. The Kelloggs concluded that environmental influences play a "tremendous role ... upon captive wild animals before they are brought to laboratory" (Kellogg 174), assuming that "humanizing the ape," so the title of a famous article in 1931, would require bringing up the "anthropoid with a human baby of about the same age" (175). In Fowler's book, the chimp Fern has been found in the Congolese jungle as a neglected baby and is adopted by the Cook family. The experiment is finally stopped after five years when Rosemary complains that she is growing increasingly "afraid of" her sister Fern (270). The complaint is triggered by a gruesome experience: Rosemary has given Fern a kitten to

share her affection and compassion, but the chimpanzee squeezes the small animal in her hand to death. Rosemary's complaint encourages her parents to call the experiment off, so as not to risk someone getting hurt by Fern. In the subtle architecture of the book, the reader only learns towards the end that the Cooks had brought Fern to a medical laboratory where she was caged, harassed and raped by older male chimps, delivered three children and gradually managed to move up the social ranks in the caged troop. The novel "shares kinship with both animal studies and animal rights activism" in the US, exploring the degree of similarity between chimps and humans (Lopičić and Petković 125).

In comparison to Fowler's We Are All Completely Beside Ourselves, Kellogg's The Ape and the Child (1933) "follows the scientific standards" in distributing scientific data with the "negative side effect" that "the chimpanzee is objectified and has no voice" (Stolle 30). The Kelloggs refer to Gua as a "subhuman organism" and regard the chimp "as less than a human" although they address both their son and the chimp as "subjects" (29), while Fowler's novel sets up narrative situations that create an empathetic closeness between the "sisters," with Rosemary trying "to give Fern a voice" (30). Here, the novel's nonlinear structure is remarkable: Rosemary's story begins somewhere in the middle of her life and unfolds her memory in numerous non-chronological episodes, in which she as a first-person narrator looks back on the time with her sister Fern. She talks about her family constellation, including her father, a psychologist at Bloomington University; her mother, agreeing to the real-life experiment when friends were searching for a new home for the chimpanzee; and her elder brother Lowell, who, like Rosemary herself, soon regards Fern not just as a companion pet but rather as a sister. In this family constellation, Fern appears to gain the status of an equal subject or a person.

Rosemary describes many situations in which she "used to believe [to know] what Fern was thinking. No matter how bizarre her behavior" (98). She states: Fern "was my twin, my fun-house mirror, my whirlwind other half" and adds: "It's important to note that I was also all those things to her" (79). The description of the relationship is grounded in great empathy, the idea of mutuality and the belief in true mutual understanding. This seems also affirmed by the novel's title We Are All Completely Beside Ourselves, which refers to a scene in the novel where Rosemary, Lowell, and Fern are completely immersed in joyful, unrestrained play in the snow. The colloquial title expresses a situation of unquestioned similarity, community, and equality when they share a feeling of exhilarating joy. While the novel draws on patterns of a family story, the unusual and uncanny creeps in.

Although Rosemary emphasizes the mirroring effect that Fern had on her, she observes how important differences between the two gradually unfolded, particularly in language development, so that she still speaks of "twins" but "disparate potentials" (99). She also describes how she "developed the habit of speaking for her" and concludes that Fern "seemed to develop the expectation that I would," so that she "was already serving as Fern's translator" at the age of three (100). The urge to talk for two turns Rosemary into a very talkative girl, as is repeatedly emphasized. On the one hand, looking back, Rosemary acknowledges that she experienced a slight feeling of superiority because of her language skills. These would not only compensate for other motoric skills in which Fern, as she has to admit in retrospect, was always superior (82), but it would also compensate for Rosemary's feeling of being neglected and receiving less attention than Fern, which makes her increasingly jealous of her. On the other hand, Rosemary doubts the relevance of human language in general, and herewith fundamentally questions the aim of her father, who wanted Fern to communicate with humans (98). Rosemary, however, turns the tables, finding the question, "[C]an Rosemary learn to speak to chimpanzees?" (100) or, more generally, "Can humans learn to speak chimpanzee language?" much more appropriate. In recalling the constellation, Rosemary questions the preconditions of the experiment in which psychologists wanted to find out whether primates were able to learn human language. In contrast, she points to "a secret language of grunts and gestures," an "idioglossia" (100) or a "visceral" understanding (Lopičić and Petković 119) which she shares with Fern and which only the graduate students working as research assistants have recognized. Indeed, current research on primates acknowledges the relevance of gestural and mimic movements for emotional communication proved in experiments (Liebal; Palsson 177-78). In Rosemary's story, the validation is the intuition of the younger self who "always used to believe [to know] what Fern was thinking" (98). The narrator Rosemary suspects that communication is possible by mimicry and gesticulation only-a suspicion that she found at least partly confirmed by significant examples in her college life later on, like the handsign W for "whatever" or L for "loser" (131).

A further important layer of Rosemary's story is her strong imitation of chimp habits—typical for human infants raised with chimps—to the degree that in kindergarten she was considered a "monkey girl" (84), provoking the typical "uncanny-valley response" (102) with the result that she was bullied quite harshly. Before school enrollment, her mother had given her instructions on how to behave:

Stand up straight.

Keeping my hands still when I talked.

Not putting my fingers into anyone else's mouth or hair.

Not biting anyone, ever. No matter how much the situation warranted it....

Not jumping on the tables and desks when I was playing. (102)

So, it is understandable that Rosemary considered it a "triumph" to be seen as "normal" (132), even if she still got teased by her fellow students. While the Kellogg's experiment at the college was stopped exactly because of this reason (adoption of chimp behavior by the human son), the fictional Cooks' experiment is continued much longer and has a much stronger and finally disastrous impact on everyone involved, with feelings of loss, trauma, suppression, grief, and guilt. These feelings not only mirror the violence that Fern has to experience after being separated from her family and after getting imprisoned. They are also the counterpart to the violence that her brother Lowell adopts in order to take revenge on his parents who had decided to hand Fern over to medical treatment—a treatment he considers as animal abuse.

Self-Conception through Otherness, Guilt, and Atonement

When Rosemary's life is split in two, the longer part of her life is the time after Fern's disappearance; this part also represents the much longer part of the narration as such. Here, the non-linear temporal structure of the narration is important: Although the novel is composed of a regular structure of six parts with seven chapters each, the course of recollection appears to follow the fragmented and tangled logic of a traumatized person, who hesitates but cannot avoid the re-emergence of a suppressed past boiling up in unexpected moments as well as in shredded form. It would be worthwhile to analyze the narrative structure from the perspective of trauma research—and this analysis should include Fern's trauma, too. In the remainder of my argument, I focus on the intricate composition of the plot, which only unfolds step by step and herewith painstakingly explores the liminal position of the chimpanzee in human self-recognition. In doing so, the text represents the complex and also traumatic entanglements of human-nonhuman relations.

The cornerstones of the plot are two situations in which Rosemary is falsely imprisoned, undermining long periods of suppression. This aligns the human's and the animal's perspective while highlighting asymmetrical structures. In the opening scene of the book the reader finds Rosemary in a university cafeteria where she observes a young couple quarrelling until the

girl, drama student Harlow, starts demolishing the café interior. Rosemary, who only contributed to the mess through her reaction, dropping a glass of milk, finds herself arrested by campus police. But Harlow does not speak up to defend her and the waitress who tries to speak up for Rosemary is also getting ignored by the cop. After a night in prison, Rosemary is finally released thanks to her father's intervention. Hence, the narration starts with the experience of sudden internment and the need for an interceder to regain freedom. This will later be mirrored in Fern's situation after being unjustly deported to the experimental lab to which her brother criminally gains access but from which he fails to rescue her.

The injustice and brutality experienced by Fern weighs heavily on Rose-mary's brother Lowell, who joins the radical ALF after finding Fern in the lab. In the course of the narration, Lowell is hunted by the F.B.I. suspecting him of having been involved in destroying the primatology Thurman lab at UC Davis (139-40). A series of further violent actions finally leads to his arrest, so that he also experiences incarceration. Now classified as environmental terrorist in post 9/11 America, he faces a long prison sentence. In contrast to Fern, however, Lowell knows that he could face imprisonment and finally regrets that he has made this decision.

In the second key situation, Rosemary finds herself in a cold concrete room of the local police station, waiting to be interrogated in the case of her brother. Ironically, it is this experience of confinement that triggers her lost memory and makes her aware of her own role in Fern's disappearance. She feels guilty and finds herself a traitor when she remembers how she reacted to Fern's behavior, denouncing her and saying she is "afraid of her" (270). Despite being only five years old, Rosemary is accused by her elder brother Lowell of effectively demanding her parents to choose between the two of them. Rosemary now realizes that, in spite of feeling like a twin-sister to Fern, she had adopted and enacted the common objectification and degradation of "the animal." After her complaint, her parent's decision is structured by the unequal status of Rosemary and Fern, where the latter is considered not a legal person but a companion animal, a being with lower status that has no voice, no saying in the matter of its deportation. This insight is also mirrored by a meaningful situation in which Rosemary, waiting for her interrogation, finds a wood louse in the room that has no chance to escape. In an empathetic mood she takes the bug out with her as she is finally allowed to leave the room. The rescue of the little bug functions as a symbol of freedom which, however, can only be achieved through human intervention.

During her long day in the interrogation room, Rosemary decides to assume responsibility for her brother (cf. 254) and finally to "take care of" her sister Fern (274). It is remarkable that her new role as responsible liberator constructs a congruence and similarity between her brother and the chimpanzee. Rosemary has come to accept her own fault which led to Fern becoming a victim of violence in the medical lab; at the same time, she now allies herself with Lowell whose actions have turned him into a victim of governmental violence. The novel ends in an atmosphere of atonement when Rosemary and her mother move near Fern's chimpanzee estuary in Vermillion, South Dakota. Rosemary accepts a position as a school teacher for young children whose gesticulation and mimicry she understands quite well and collects money for her brother's legal fees with TV interviews she gives on a children's book about her own chimp-sister story which is based on her mother's diaries. The articulation of her trauma not only liberates her emotionally, it also becomes the means for raising the money required to help her brother and her chimp sister.

When Rosemary concludes at the end that she should not have accused Fern of mistreating the kitten, she concedes to the difference between herself and Fern:

I'd never thought that Fern would deliberately hurt me.... But her remorselessness, the way she'd stared impassively at the dead kitten and then opened his stomach with her fingers, had shocked me to the core....

That there was something inside Fern I didn't know.

That I didn't know her in the way I'd always thought I did.

That Fern had secrets and not the good kind.

Instead I'd said I was afraid of her. (270)

These sentences show a double disappointment: On the one hand, Rosemary cannot transfer her love for an object of affection to her chimp sister. While this could also happen among two human siblings, the second disappointment makes the book really compelling. Rosemary's assumption of empathy across species is not met by the animal Other. Importantly, the core scene involves a third animal, the kitten. When the chimp dissects the small cat, the human girl discovers that her assumption of empathy and understanding was not reliable. She is equally horrified by the brutality of the act and the inaccessibility of the animal mind. So, this part of the novel includes not only a human-chimp relation but a triangle of interspecies relations (human, chimpanzee, and cat). Ironically, the brutal turn of the play of three sets the energy of Rosemary's latent jealousy free, which then leads to the

collapse of the entire experiment in interspecies cohabitation in the sense of Haraway.

Different from the Kellogg's case, Fowler's fictional experiment is stopped not because the human is animalized through imitation but rather because the interspecies relation hits the boundaries of what humans can comprehend when it comes to non-human agency. Rosemary has to admit that the thought process of the animal Other was not fully accessible to her. Although there are different studies on the empathy of apes with kittens, for example, Harry Harlow's experiment with gorilla Koko, who took care of a kitten (cf. Moore and Hannon), in Fowler's book the interaction in the interspecies triangle has a different outcome. It is not without irony that the name of Rosemary's closest, albeit rather ambivalent, college friend—and later ALF-combatant of her brother—is also Harlow. In this intra-species triad, Rosemary again appears as the jealous person who tends to defend social norms against the others.

Recalling again her betrayal of Fern in the last part of the story, Rosemary reflects on this very moment by concluding: "still I knew I had not made up that kitten" (266). Although this insight certainly does not disprove the general possibility of chimpanzees' empathy with a kitten, Rosemary interprets this situation as an awareness of difference that leads to her self-recognition: "I realized that I did know who I was" (266). Focusing on the broad range of similarities between humans and chimpanzees, as well as their space of interrelations and interactions, the novel also investigates the pitfalls of a chimp-human experiment that entails not only empathy, community, and mutuality, but also jealousy, misunderstanding, and violence.

In conclusion, the article has shown that the experience of uncanny otherness triggers an "identity shock" (Neumann 101) and facilitates human self-conception. It can be also seen as an initiation of "the shock of recognition' in the reader" whereby Fern functions as a "mirror image" (Lopičić and Petković 123). At the very end of this coming-of-age novel, Rosemary is much more cautious about her interpretation of Fern's emotions and ability to recognize her during visits. The position of the chimpanzee as liminal species is again focused in the story's closure, which depicts an emotional image of simultaneous interspecies understanding without dissolution of a structural separation, captured as a transparent but dividing glass panel. Rosemary's self-recognition, which seems to have a positive effect on her personal development and to help her in overcoming her trauma, coincides with an awareness of guilt and betrayal. Rosemary blamed Fern for frighte-

ning her, leaving Fern, who lacks a shared language, defenseless and unable to disprove the charge. While a human child might have been punished for a similarly gruesome act, the chimp loses the almost person-like status of a family member, is turned into an object and removed to a laboratory. As a punishment this would have been disproportionate. The comparison encapsulates the whole dimension of the current animal/human-divide and sheds light on the uncertain social status and inferior legal status even of primates.

With the mirroring motifs of the imprisonment of Fern and the brother, the novel also invites the reader to consider what it means for an animal to be detained. It brings to mind the potential consequences of lacking legal status, rights and one's own voice to defend oneself, whether that may be because of one being a chimpanzee or otherwise. In doing so, Fowler's novel offers a fresh and critical reflection on notions of human superiority that only seem to justify a categorical separation of humans and animals. Those who feel strong inter-species empathy will find this highly oppressive. So, the novel features not only animal's interests but also exposes the social and emotional loss when humans are separated from companion species. Overall, Fowler's text invites the reader to reflect on the epistemologies and ethics of interspecies relations as parts of an eco-zoopoetics. Setting the interspecies relationship as a family drama implies a highly emotional approach that asks the reader to experience empathy with the non-human animal.

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(Not) Speaking for Animals and the Environment: Zoopoetics and Ecopoetics in Yoko Tawada's Memoirs of a Polar Bear

The thoughts of animals were written clearly on their faces as if spelled out with an alphabet. I found it difficult to understand that this language was illegible to other people. (Tawada, *Memoirs* 102)

Giving Face

In animal autobiographies, which I have conceptualized as "literary autozoographies" elsewhere (Middelhoff 2-3), animals are represented as narrators of their lives. Rhetorically, giving animals human voices is known as *prosopopeia*, i.e., the bestowing of "a face, the mask (*prosopon-poiein*) through which the dead, the absent, and collectives are supposed to have spoken" (Menke 7; cf. also de Man 926-30). Surely, the extent to which human and nonhuman voices, discourses, and concerns in these texts coalesce and compete with each other depends on the form as well as the generic and historical contexts of a text performing "acts of speaking-for that cross the species boundary" (Herman 6). Literary autozoographies may import moral messages and satirize social phenomena; they may challenge a reader's perspective, produce sympathy for nonhuman beings, or argue on behalf of those considered "dumb" or "speechless."

Similarly, in the history of environmentalism, "hypostasized Nature (with a capital n)" (Morton 162) or "the" environment (Moore) has been spoken for by various parties, individuals, and, of course, the authors of texts. Nature writing and ecopoetry have their non-literary counterparts in ecological agendas of politicians and banners of environmental activists. If humans are turned into proxies for oceans or "the" climate, *prosopopoeia* moves to the public platforms of political representation. Yet the question remains:

Prosopopeia gives "Toten, Abwesenden, Kollektiva, in der Fiktion ihrer Rede ein Gesicht, die Maske (prosopon-poiein), durch die sie gesprochen haben sollen" (Menke 7). All translations from the German are my own.

"If nature cannot speak (at least not in public forums), who has the right to speak on nature's behalf?" (Cox 4). And: "If the dangers of speaking for others result from the possibility of misrepresentation" (Alcoff 23), how can we *not* misrepresent when speaking for "nature" and nonhuman animals?

It is hardly surprising that people find themselves obliged to speak for "the" environment in a time emotionally and conceptually charged with such powerful narratives as-to name just the most prominent-the Anthropocene (Zalasiewicz, Crutzen, and Steffen), the Capitalocene (Moore), or the Chthulucene (Haraway); narratives which are simultaneously challenged or even rejected by climate-skeptics. Speaking for or on behalf of nonhuman others, however, is a venture onto thin ice. Andrew McMurry, for example, cautions against "constru[ing] nature as voiceless and in need of speaking subject status" (55). Doing so not only privileges speech as the sole means of political representation but also, McMurry argues, "puts the onus of auditory responsibility directly on those special categories of 'listeners' such as natives, 'country people,' women, children-who have long been constructed as somehow more receptive to the voice of nature than the rest of humanity" (55). One might wonder then whether there can actually be a poetics which speaks for but does not undermine the existence of expressive nonhuman voices and faces.

Thin ice, language, and acts of speaking-for stand at the heart of Yoko Tawada's latest novel *Memoirs of a Polar Bear*² in which the lives, experiences, and narrative voices of three polar bears unfold, guiding readers from the Soviet Union to the GDR and post-reunification Germany. This chapter first outlines two systematic and interpretive approaches to, and the implications of fiction speaking for animals. It then focuses on the critical potential of Tawada's novel by investigating how the text challenges representations of animal experiences by acts of (not) speaking-for, i.e., by engaging in animal acts of speaking-for while simultaneously exhibiting the inability and inadequacy of speaking for other species and "the" environment. On the one hand, my reading focuses on the way the text foregrounds the epistemological and linguistic limits of speaking for nonhuman lives. Yet it is not only the very staging and visualization of the impossibility of high-

The book was published in German in 2014, entitled Etiiden im Schnee ("Etudes in the Snow"). The title of the English translation is not only at odds with the fact that it is not one, but three polar bears becoming (auto)biographical subjects. It also fails to acknowledge the playful and experimental character of the acts of cross-species speaking-for already indicated in Tawada's German title.

fidelity nonhuman self-representation that this multi-perspective narrative is concerned with, but also the pervasiveness as well as the use and abuse of polar bears by means of language, symbolism, and anthropocentrism. On the other hand, then, this reading tries to challenge the notion that *Memoirs* can be labeled as *either* animal advocacy *or* environmental advocacy writing (Raglon and Scholtmeijer 122, 131). Tawada's animal life-writing straddles these categories by reflecting on, and experimenting with, different modes of speaking for polar bears and simultaneously exposes the implications of our cultural, and at times unimaginative, engagement with this species.³ In that respect, Tawada's (auto)zoopoetics is imbued by ecopoetical concerns.⁴

Speaking for Animals

Recent scholarship has probed what it means to read animal autobiography without letting the autobiographical animal vanish behind the screen of anthropocentric allegorical readings (cf., for instance, Keenleyside; DeMello; Middelhoff). David Herman has introduced a useful distinction between two different "acts of speaking-for that cross species lines" (7). Drawing on politeness theory and interactional sociolinguistics, Herman distinguishes between acts of speaking-for which "butt in" and those which "chip in": "When butting in," Herman writes, "a speaker voices an utterance of which he or she is not only author but also the principal, whereas when chipping in a speaker voices an utterance in which the spoken-for party or parties function as co-principal(s)" (2). A principal is constituted by the inferences and the discourse of a speaker or an author (4).

While *chipping in* "signals that one shares so much with another discourse participant that one can take up his or her position in talk, building solidarity," a speaker or author *butting in* displays his or her "more or less human-centric interests" (7) and disregards solidarity. When animals are turned into narrators or speaking characters, these acts of speaking-for can oscillate between the poles of butting in and chipping in "depending on the scope and quality of the humanimal co-authorship in a given segment of the narrative" (10). Furthermore, Herman regards irony and self-reflexivity in "cross-species speaking-for" (9) as acts which "not only reflect but also

³ Ursula Heise, however, reminds us that the image of the polar bear is subject to divergent cultural meanings in the face of climate change (241-44).

⁴ Cf. the introduction of this volume for the concepts of zoopoetics (Moe) and ecopoetics (Rigby).

help shape cultural ontologies marked by relatively prolific allocations of possibilities for selfhood among animal agents" (13).

Marco Caracciolo has discussed the functions and outcomes of speaking for animals in slightly different terms. Focusing on representations of animal consciousness, Caracciolo argues that autozoographical texts like Italo Svevo's *Argo and His Master* (1927), "may sensitize readers to the puzzles of consciousness (both human and animal)" (488):

[J]ust as Svevo's dog fails to understand what goes on in the human world of his master, humans should face their inability to grasp—to fully grasp, at least—non-human consciousness and its many instantiations across the animal world. This realization paves the way for ... a more intimate sharing: we can relate to animals not because their experiences are transparent to us but because our recognition of animal consciousness is complicated by a mutually partial and imperfect comprehension. (500-01)

Attributing mind, subjectivity and agency to literary animals, while at the same time acknowledging the limits set to linguistic representation and mindreading alike, literary texts call attention to the limits of language as well as to the epistemological anthropocentrism mirrored in our conceptions and representations of animal phenomenology.

(Auto)Zoopoetics of Negativity

Tawada's novel has been hailed by reviewers and critics as a fantastic, reckless leap into human-animal history (Matsunaga) and a "zooanthroposynthesic quasi-memoir" (Smith). The novel offers various readings—also depending on which of the three polar bear narratives one is focusing on—ranging from persiflage on commercial literary industry and migrant literature, to artist novel, and, of course—in a nod to Kafka—to "animal parable" (Saalfeld in Tawada, *Interview*). Set, so far, Tawada's experimental approach to animal (auto)biography and the link between animal life writing and environmental

In fact, Kafka and his pseudo-autodiegetic animal narrators play a vital role in the novel (cf., e.g., 49-53)—as does E. T. A. Hoffmann's autobiographical *Tomcat Murr*, and Heinrich Heine's *Atta Troll*. Due to the confines of this article, I cannot elaborate on the intertextual acts of cross-species speaking-for. Suffice it to say that references to other literary text occupied with the question of how (not) to access and represent the experiences of animals, are at the core of the first part of the novel which is particularly concerned with the question of how to write an animal autobiography.

issues in the novel has drawn little scholarly attention,⁶ which is what I will be focusing on in the following discussion.

Memoirs retrospectively narrates the course of the lives of three polar bear generations—grandmother, daughter, and grandson, starting with the unnamed grandmother in Moscow before the end of the Cold War, moving to her daughter Tosca in the GDR state circus, before coming to a close with Tosca's son Knut living in the Berlin Zoo at the beginning of the twenty-first century. Although each of the three narratives integrates multiple references to the lives and relations of the two other bears respectively, the three narratives are distinct from each other, separated not only by the division into three chapters, but, first and foremost, by the different narrative approaches.

The text presents the reader with three modes of "acts of cross-species speaking-for" (Herman 10) in the course of its three-partite structure. The first chapter has the grandmother polar bear writing (experiencer) and relating (*narrator*) her autobiography; in the second chapter, the text follows Barbara, the circus trainer of polar bear Tosca, trying to compose the bear's biography in the first person. Yet from the very beginning Barbara is more concerned with the narration of her own biographical experiences than her role as bear ghostwriter. It is only at the end of the chapter that Tosca literally takes over (Tawada, *Memoirs* 158-65): A printed bear paw marks the break between Barbara's narrative voice, i.e., Tosca's biography, and the autozoographical narration of Tosca. The last chapter introduces Knut, the polar bear baby turned world famous in 2006/2007, narrated by a seemingly heterodiegetic narrator. The reader only learns that it is actually the bear himself narrating his life from a third-person perspective when Knut, during a conversation with a sun bear, finds out that individuals refer to themselves in the first person (208).

The novel thus starts as an animal autobiography (chapter 1) and then turns into what might be called a "humanimal (auto)biography" (chapter 2) insofar as both animal and human (auto)biographers materialize as "hybridized, 'humanimal' authors and principles" (Herman 10), blurring "the boundaries between auto- and heterobiography" (H. Schwalm). It closes with an animal's "autobiography in the third person" (Lejeune), which turns into a first-person autographical account in the course of the narrative (chapter 3).

All three of these acts of cross-species speaking-for involve shifts from butting in to chippin in, indicative of the oscillating movements between the construction and deconstruction of a "realistic" representation of animal

⁶ Notable exceptions are Hoffmann as well as O'Key.

minds and (self-)perceptions. Marco Caracciolo has pointed out that three elements are needed for a representation of animal experiences to be considered believably "realistic":

[F]irst, the representation of nonhuman consciousness must resonate with readers' expectations and beliefs; second, it must be sufficiently rich and detailed to offer a holistic account of animal consciousness;... third, it must draw on readers' familiarity with everyday situations and events in a way that is sufficiently defamiliarizing to account for the assumed cognitive characteristics or abilities of nonhuman animals. (487-88)

If these criteria are met sufficiently, Caracciolo argues, readers can be drawn into a "cognitive illusion" (488): They believe to be presented with a plausible, phenomenologically sound representation of nonhuman cognition.

Memoirs engages with the readers' common knowledge and imaginative projections of polar bears in order to first cater to the idea of "becoming polar bear," and then upset this idea. Two examples from the first chapter might suffice to illustrate this point. The first chapter, the grandmother's story, starts as follows:

Someone tickled me behind my ears, under my arms. I curled up, becoming a full moon, and rolled on the floor. I may also have emitted a few hoarse shrieks. Then I lifted my rump to the sky and slid my head below my belly. Now I was a sickle moon, still too young to imagine any danger. Innocent, I opened my anus to the cosmos and felt it in my bowels.... Without my fluffy pelt, I'd been scarcely more than an embryo. (3)

Anticipating a polar bear life narrative, not least due to the title of the book, the opening scene affirms and attends to readers' notion of a zoomorphic infantile character with a furry body whose shape and color resemble the moon. Furthermore, the representation of the bear's mind appears "nuanced and fine-grained" (Caracciolo 490) with the perspective of the child-bear noticeably defamiliarized, i.e., "animal-like." As a consequence, readers are drawn into the illusion of observing a polar bear mind which is re-enacting childhood memories. Yet the process of aesthetic immersion may start to become more difficult in the next sentence: "I couldn't walk very well yet,

Knut's (first-/third-person) self-account is rendered in a similar way. The young bear's naïve, limited understanding of his surroundings and the human practices observed corresponds with the way readers might conceive of the experiences of a young, comical polar bear in general, of Knut's representation as "Cute Knut" in the media in particular (Tollmann 251).

though my paw-hands had already developed the strength to grasp and hold" (Tawada, *Memoirs* 3). The neologism "paw-hands" is at odds with Western culture and vocabulary. Only humans have hands, as Heidegger notoriously claimed, bears are supposed to have paws (Derrida). Juxtaposing words commonly used to describe animals in opposition to humans with terms usually reserved for humankind, the text highlights the linguistic arbitrariness and cultural contingency of the distinction between "paw" and "hand" reminiscent of what seems to be humankind's desperate need to maintain its position as the sole user of language (and tools in hands). Furthermore, this juxtaposition also reminds readers that it is indeed hands writing lives and autobiographies, certainly not paws: This polar bear's mind and her life are text, not "the real thing."

The irritation is appeased shortly after, when the narrator recapitulates her training to become a circus act and indulges the readers' "bearish" expectations: "One day, the man tied strange objects to my feet.... It hurt, so I pushed the floor away from me again. After several more attempts, I was able to balance on two legs" (Tawada, *Memoirs* 4). Even if readers are unfamiliar with the traditional (albeit now forbidden) practice of training bears to stand up by setting the floor of their cages on fire, the description suffices to imagine a bear being forced to get up on her hind legs. Yet the next paragraph, graphically detached from the last sentence, finally makes the illusion of "becoming polar bear" collapse:

Writing: a spooky activity. Staring at the sentence I've just written makes me dizzy. Where am I at this moment? I'm in my story—gone. To come back, I drag my eyes away from the manuscript.... I stand at the window of my hotel room, looking down at the square below that reminds me of a theater stage. (4)

In a rapid, unmediated shift from the protagonist's mind to the narrator's, the text foregrounds the conditions of its production, the means of creating and crafting animal first-person experiences. As a result, the passage manages to break the illusionary spell of being inside a polar bear's mind. The pattern of the chapter is now plain to see: As soon as the text beckons to the readers' cognitive illusion, it is also on the point of spoiling it, only to enforce it, and then dispel it again shortly after.

Additionally, the representation of the grandmother bear alternates between what seems like naïve anthropomorphism on the one hand, e.g., when the bear's behavior as a grown-up is described in particular "human-like" terms—the bear attends conferences, speaks and writes in Russian with a "Mont Blanc fountain pen" (19)—in particularly "human-like" terms, and

what appears, on the other hand, to be a "realistic" representation of the remembered self of the bear growing up to become the star of the circus ring, actually performing like a human, riding tricycles and wearing "a girly, lace-trimmed skirt" (22). Sequences of the narrator's butting in, suggesting a human-centric frame, alternate with modes of the experiencer's chipping in where ethologically sound descriptions of bear behavior unfold. As such, these crisscrossing acts of speaking-for blur the distinctions between human and animal representations, thereby questioning anthropocentric ontologies and the axioms of anthropological differences. Eventually, readers are left to wonder whether the bear autobiographer has actually turned out what her circus training had forced her to become in the first place: an animal performing human tasks and techniques.

Despite their individual differences, all three "bear narrators" are self-conscious, subjective beings negotiating their place within the confines humans have erected for them and interacting across species and beyond linguistic lines. In this respect, the novel can be regarded as a hybrid-generic mode of writing: magical realism. Tanja Schwalm argues that

in its subversive critique of Western anthropocentrism, hierarchical orderings, material power structures and hegemonic discourse, and in its recognition of nonhuman subjectivity through indigenous belief systems and the carnivalesque, magical realism is essentially a posthumanist mode of writing. (7)

Tawada's (auto)zoopoetics underscore the inherent hybridity of the bears growing up entirely removed from their natural habitat and made to adapt

This back-and-forth movement from *chipping in* to *butting in* is not limited to the first chapter. In the second chapter, Tosca describes the performed kiss exchanged between herself and Barbara in neutral terms, albeit subjectively focalized (159), then again claims to have "bought a computer" to "keep in touch by e-mail" (164) with her trainer. Similarly, Knut's self-description in the third person might assume a form of *chipping in*, e.g., when the bear's first bath is described: "Knut was placed in this bathtub. He put his right paw on the edge of the tub and then his left paw, because he wanted to jump out" (172); then again, the mode seems to be dominated by butting in, e.g., in the representation of Knut's thoughts as narrow-minded and artificially infantile: "Knut grew more and more each day, while poor Matthias continued to shrink. Knut suddenly had the thought that perhaps the milk came from Matthias' body, that he was being painfully squeezed dry day after day" (176). For a similar oscillation between *butting in* and *chipping in* within Knut's first-person narration, cf., e.g., 220-23.

This becomes apparent not only in the grandmother remembering her young self-engaging with her trainer Ivan (e.g., 10) but also in Knut's interactions with Matthias, (e.g., 186, 203-05) as well as in Tosca's biography where a north pole dream sphere allows for Tosca and Barbara to converse with each other (e.g., 98, 104-05).

to human institutional practices but simultaneously insist on the bears' material, corporeal presence as bears.

Furthermore, the text stages its poetics as *poiesis*, as a particular form of *technē* or artifice. This becomes apparent especially in Barbara's self-imposed task of writing Tosca's biography: "I ... picked up the dwarf pencil, and began writing Tosca's biography in the first person" (Tawada, *Memoirs* 111). A new paragraph then exhibits this biographical writing "in the first person": "When I was born, it was dark all around me, and I heard nothing. I pressed myself against the warm body beside me, sucked sweet liquid from a teat, and fell back asleep. I'll give this warm body the name Mama-lia" (111). In this instance, the text mirrors cultural imaginations and projections constructed with regard to "animal experience." Moreover, it stages the conception of animal (auto)biography as a process that meshes fact and fiction, human and animal life. In these acts of speaking-for, Barbara's auto-biography and Tosca's biography converge. Barbara sets out writing from Tosca's perspective but smoothly slides into writing about herself:

Mama-lia's voice was terrifying, and I found myself feeling afraid for her, even though I knew perfectly well I was not in danger. Humans can roar too, to intimidate others. At first, they use words that mean something; after a while, however, all you hear is a bellowing that has grown out of speech, and a person being roared at has no other choice but to roar back. This made me suddenly remember how my father left us and went to Berlin. (124)

What has started with Tosca, ends with Barbara. The text illustrates that writing an "other" always means inscribing one's self. The dividing line between self and other, autobiography and heterobiography, human and animal, is not distinct but represents a rather blurry, dubious demarcation based on language and self-acknowledgement.

Tawada's answer to the dilemma of representing animal minds in literature can therefore be described as a self-reflexive performance of constructing and deconstructing animal experience in language. The text first indulges the readers' cognitive illusion, then denies and dissolves it by foregrounding the necessary linguistic techniques of rendering animal experiences "first-hand." What can be observed in this staging of the means of writing animal (auto) biography, and what I suggest calling "(auto)zoopoetics of negativity," is a constant shift, accompanied by auto-reflexive, ironic twists and turns between (1) fine-grained "realistic" animal phenomenology and blatant anthropomorphism, between (2) autobiographical and biographical narration, and between (3) animal and human narrative voice. On the one hand, these shifts stress the

discursive means of constructing animal life and experience in literary texts, and, on the other hand, persistently impede the readers' impression of witnessing a bear's thinking and feeling. Furthermore, a reliance on high-fidelity representations of animal experience is made more or less impossible by the unreliability of the narrators—be they animal or human: In the first chapter, the narrator pictures herself as half human, half animal; in the second part, Tosca's biographer Barbara is suffering from depressions and escapes from reality by meeting and speaking with Tosca in a fantastic "world of ice" (123). And in the third part, readers must concede to the fact that Knut seems to have developed a mental aberration after his human foster-mother left him: The bear thinks he has become friends with a character called Michael who turns out to be (the dead) Michael Jackson (cf., e.g., 240-46).

In this respect, Tawada's (auto)zoopoetics can be read as a challenge to anthropocentrism and as an ethical commitment to animal representation, rendering her (auto)zoopoetics a/n "(auto)zoopoetics of negativity." As Kate Rigby points out in her reflections on "ecopoetics of negativity," such a poetics "would need to be able to demonstrate how the work of art always, inevitably, fails to convey the experience of which it is a trace" (Rigby, Topographies 119). Insofar as such texts reveal the disparity of word and world, signifier and signified, they draw the readers' attention from the world of the text to the world which the texts refer to: a world in which polar bear habitats are currently threatened by global warming ("Threats," WWF), and in which polar bears in captivity are alleged to be depressed and prone to die of heat strokes ("Depressed," BBC). Poetics of negativity withhold what is promised, "if that promise is an embodied experience of the more-thanhuman world" (Rigby, "Come forth" 117), appealing to an experience of the more-than-human world beyond and behind those texts and pointing at the idea that we might be at the brink of losing this world that exists (and speaks) beyond language and literature.

Memoirs presents its readers with the constrains of human knowledge while also indicating the evolutionary affinities and cultural intricacies of human and animal life, underscoring the epistemological and linguistic limits of human *poiesis* to fully and accurately comprehend and represent what others—be they human or animal—think and feel. Tawada's (auto)zoopoetics of negativity are at pains to make readers aware that human representations of animal experience inevitably fall short of what they aspire to convey. Yet at the same time, these animal (auto)biographical "etudes" and unsuccessful acts of speaking-for guide our attention to that which lies beyond human language, and to what it means to disregard the value of these worlds.

(Auto)Zoopoetics and Ecopoetics

The image of an emaciated polar bear balancing on top of a tiny ice floe is just one of many that have become symbols of global warming to an extent that the actual animals seem on the point of dissolving under their heavy figurative burden (Tollmann). Tawada's text, I argue, is perfectly aware of this dynamic. The grandmother chapter, for instance, indulges in clichéd references to, and representations of, polar bears-exposing the superficiality of the image popular culture has conceived of this species, and thereby holding up a mirror to the reader's stereotyped knowledge about polar bear life. Not once does the narrator explicitly identify herself as a polar bear; yet it is the very contriteness and triviality of the polar bear allusions which point at the fact that our understanding of what might amount to "being polar bear" is dominated by trite images and one-dimensional figurations carried across the media and global warming discourse. Thus, grandmother polar bear stuffs herself with Canadian wild salmon (44); during a conference, she elaborates on the bicycle as "the most excellent invention in the history of civilization, ... the hero of every environmental policy" (6); and her first German translator is a man called "Eisberg" (32). The literary polar bear, therefore, mimics the narrow-minded symbolic figuration observable in popular culture's representations of polar bear life. The text draws the reader's attention to the various types of responsibility, not only for what amounts to our direct involvement in climate change but also for the circumscriptions of our cultural imaginations of polar bear life and the symbolic instrumentalization of the species.

Such an instrumentalization—and this is one of the numerous instances where the link between an environmental and an animal-advocacy orientation of the text is situated—becomes even more apparent when looking at the third chapter of the novel. As aforementioned, this chapter has polar bear narrator Knut recapitulate his short but turbulent life. Fact and fiction become firmly intertwined since the reader is confronted with a fictional first-person account of a fairly well-known bear whose life and death amounted to a global media event (Kulish). Knut's mother, in "real life," was in fact no one else but Tosca, whose story is fictionalized in the second chapter. In 2006, Tosca refused to provide for her cubs, supposedly as a consequence of the experiences she made during her former life at the GDR state circus.

The character Barbara is the fictional equivalent of Ursula Böttcher, the first female animal trainer to perform with polar bears (Engelhard 21, 118).

In contrast to similar historical cases in which such newborns were killed, the Berlin Zoo decided not to euthanize the surviving bear but instead had keeper Thomas Dörflein nurse him with a bottle. When the little bear was first presented to the public, pictures and videos went viral on the web. The zoo had to put up extra toilets to accommodate more than two million visitors within its gates, and Sigmar Gabriel, then minister of the environment, even made himself Knut's godfather. Yet polar bears do not remain small and cuddly forever. After Dörflein had to stop performing with Knut because of the eminent danger posed by a fully-grown polar bear, public interest waned. Used to being with humans, Knut was bullied after being introduced to an enclosure with other polar bears and died—largely forgotten—in 2011 (Engelhard 19-22).

Tawada's depiction of Knut's life remains true to the external "facts" delivered by the media and the zoo's press agency except for the names of the human characters. Yet in this chapter, the novel is more interested in the question of how Knut actually became a performance star and how this literal media circus and the life in confinement might have shaped Knut's (self-)experiences. The text suggests a critical view of the events surrounding Knut's "career." *Memoirs* represents the instrumentalization of Knut, starting right at the inception of the bear as a public attraction. In a conversation with Knut's keeper just before the first time Knut is shown to his fans, the vet Christian makes this blatantly obvious:

When the television shows how happy and sweet Knut looks running around outside, the viewers will start to think seriously about climate change. The ice floes at the north pole can't keep melting like this, otherwise in the next fifty years the world's polar bear population will decrease by two-thirds. (191)

The zoo director is even more explicit, addressing the polar bear as "the ambassador who's going to put a stop to climate change" (198). In fact, this is not a metaphor. In May 2008, Sigmar Gabriel made Knut mascot of the UN Convention on Biological Diversity, observing that it is difficult to imagine any other animal "symbolizing the consequences of climate change as clearly as the polar bear. No ice, no polar bear" ("Sogar der Minister," *dpa*).

But Tawada's Knut is not only turned into a symbol of climate change implications; he is also regarded as the warrantor of the zoo as its director explicitly tells him: "I'm proud of you. The future of our institution rests on

^{11 &}quot;[K]aum ein Tier symbolisiert die Folgen des Klimawandels so deutlich wie der Eisbär. Ohne Eis kein Eisbär."

your shoulders" (Tawada, *Memoirs* 198). The text gives voice to Knut, pointing out—being the nonhuman "non-person" he is—that he does not actually have a say in any of this. Finding out that the Berlin Zoo was caught up in a legal dispute over which institution was entitled to the money Knut had swept into the tills, the animal narrator remarks:

They were feuding over me, but I wasn't even called to testify.... I lost my appetite when I sawa caricature in which my body was drawn in the shape of a euro sign.... [I]t would never have occurred to me to consider myself a source of financial gain. (232)

Throughout the book, Tawada questions the logic of anthropocentricism by reflecting on subjectivity, the meaning and rights of a legal person, and the hubris of human rights. Knut's grandmother had been thinking about this issue more explicitly:

I began to realize that my fate and the fate of human rights were inextricably entwined. Still, I didn't know the first thing about them. The concept of human rights had been invented by people who were thinking only of human beings. Dandelions don't have human rights, and neither do reindeer, raindrops, or hares. At most a whale. (54)

Thus, in addition to a critical reflection on the cultural imagination and (inevitably) inadequate representation of nonhuman beings and their minds, the critical engagement with ontological anthropocentrism and environmental issues—as one result of this anthropocentrism—remains at the heart of the novel's concerns. In this respect, the text's (auto)zoopoetics and ecopoetics cannot actually be separated. They rather converge in a textual web, probing what is at stake in our commitment to and means of representing and instrumentalizing the more-than-human world.

Tracing the genealogy of polar bear life in captivity, the novel not only challenges the treatment of animals in "entertainment" and public institutions but also troubles our stereotypical conception of polar bears likely to fade away behind the screen of environmental symbolism and climate change alike. The text intertwines issues of environmental justice, human and animal rights, while persistently pointing us to the fact that language is doomed to fall short of our intention to make nonhuman others "speak their mind." Foregrounding language not as that which distinguishes humans from their actual animal kinship, but as that which might initiate our engagement with other selves beyond language, the novel invites readers to consider why it

might be worthwhile to commit themselves to *action* which might transcend the *act* of speaking-for.

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