From Splinters to Stitching Skies:

An Ecocritical Scale-Reading of Jeff VanderMeer's *The*Southern Reach

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Abstract

This thesis investigates how Jeff VanderMeer's trilogy *The Southern Reach* (2014) contributes to understanding and dealing with problems in the Anthropocene. In *Ecocriticism on the Edge*, Timothy Clark argues that the Anthropocene is characterized by problems that transcend our general notions of scale and time. Awareness of these 'Anthropocene problems' causes a cognitive and emotional reaction which Clark calls Anthropocene disorder. In order to deal with this disorder, he suggests a new approach to ecocriticism and literature that takes the issue of scale into account. *The Southern Reach* revolves around an ecologically mutating area (Area X) which defies general ideas about scale, as the area has no borders and produces creatures of unfathomable dimensions. This thesis performs a scale-reading of the trilogy and analyzes the plot, figurative language and narrative structure. It is argued, first, that *The Southern Reach* contributes to our understanding of Anthropocene problems by imagining different scales and their interrelatedness, and, second, that the trilogy suggests ways to accept Anthropocene disorder by imagining an atmosphere of paralysis and confusion, as well as evoking that paralysis for the reader.

Introduction

In a recent study, scientists discovered that the problem of microplastic pollution is more severe than previously predicted. Not only do humans consume tiny particles of plastic, but now a startling amount of microplastic has been found in marine mammals, rivers and oceans (Carrington). The dangers of microplastic pollution are not fully known. Besides an example of our global environmental crisis, this survey could also be seen as an example of what ecocritic Timothy Clark calls 'scale effects'. In his book *Ecocriticism on the Edge*, he explains that scale effects "are invisible at the normal levels of perception but only emerge as one changes the spatial or temporal scale at which the issue is framed" (22). In our daily life, we cannot see the consequences of our plastic use. But on a large scale, plastic intrudes into the environment of humans and non-humans in ways previously unpredicted. According to Clark, scale effects are an important characteristic of what we now call the 'Anthropocene'. The Anthropocene is an unofficial term for the first geological era in which human activity has become a significant geological force (Crutzen 13).

The significance of scale in the Anthropocene has entered humanities research mainly through ecocriticism, the theoretical framework that emerged in the 1990s to study the relationship between culture and the environment. With Cheryll Glotfelty's *The Ecocriticism Reader*, ecocriticism was initially defined as the study of the relationship between literature and the environment (Glotfelty xviii), but nowadays ecocriticism is a mode of analysis that includes disciplines from both the humanities and the social sciences. Although ecocriticism remains hard to define, most analyses have in common that they contain an ethical or activist motivation. Greg Garrard, for instance, stresses that "ecocritics generally tie their cultural analyses explicitly to a 'green' moral and political agenda" (4). Lawrence Buell writes that "environmental criticism, even when constrained by academic protocols, is usually energized by environmental concern" (97).

As concerns about the global environment are increasing, ecocritics such as Clark, Timothy Morton and Ursula Heise have turned their attention towards the issue of scale. In *Sense of Place and Sense of Planet*, Ursula Heise argues that literature should start articulating the connections between scales in the context of climate change (205). Similarly, in *Hyperobjects: Philosophy and Ecology After the End of the World*, Timothy Morton introduces the term 'hyperobjects', which denote "events or systems or processes that are too complex, too massively distributed across space and time, for humans to get a grip on" (1). He argues that we need a new mode of thinking and writing that takes the existence of hyperobjects into account (5). Through literary analysis and ecocritical theory, ecocriticism should therefore contribute to understanding scale problems in the Anthropocene.

The significance of scale in the imagination of environmental problems is also evinced in Jeff VanderMeer's trilogy *The Southern Reach* (2014), in which something very weird is happening along the east coast of the United States. The nature in this area, so-called Area X, is developing in unusual and alarming ways. The area is surrounded by an invisible border, within which animals and plants

mutate, time behaves differently and modern technology is useless. Southern Reach, a secret government agency, organizes expeditions into Area X to discover what caused it and how it can be stopped. However, the expedition members quickly realize that they do not have the language nor the means to understand Area X. An important aspect of this incomprehension is the problem of scale: no one knows the size of the area, and some of the creatures in Area X are unfathomably huge. The only person who seems to have a different perspective on Area X is a character named 'the biologist'. Her fascination with nature and willingness to accept the new environment ultimately save her from dying.

The Southern Reach has been subject to several ecocritical interpretations. Gry Ulstein argues that The Southern Reach re-imagines our idea of the monstrous, and in particular the "the monstrous transformations imposed upon the planet" and provides a "refreshing exit from human-scale thought" (Ulstein 92). Tom Idema argues that the trilogy questions the anthropocentric image of the autonomous human subject from various scientific viewpoints (106), and Finola Prendergast argues that The Southern Reach promotes a non-human ethics by presenting the value of biodiversity and autonomy as self-evident facts (Prendergast 337). Furthermore, New York Times reviewer Joshua Rothman calls Jeff VanderMeer 'the Weird Thoreau', alluding to both VanderMeer's detailed nature-writing and the genre of the novel, the New Weird. In another review, David Tompkins compares Area X to Morton's hyperobjects.

Hyperobjects are comparable to scale effects, which according to Clark are "the most difficult challenge of the Anthropocene" (22). In *Ecocriticism on the Edge*, Clark is critical of interpretations that too readily attribute our environmental crisis to a crisis of the imagination. The presupposition behind these interpretations is that our ecological crisis can ultimately be traced back to cultural or political factors. Instead, he vouches for an ecocritical approach that takes into account the "numerous economic, meteorological, geographical and microbiological factors" that play a role in environmental destruction (21). He performs several 'scale readings' of literary texts to show that certain phenomena, actions or decisions acquire a different meaning when considered on a larger scale. Furthermore, Clark argues that an awareness of scale effects can have a profoundly psychological effect, which he names Anthropocene disorder (141). This disorder designates a loss of a sense of proportion and may even lead to paralysis: the feeling that one can simply not respond to the Anthropocene in an ethical manner.

In this thesis I demonstrate how *The Southern Reach* takes up the most difficult challenge of the Anthropocene by imagining different scales and scale effects. I argue that the trilogy helps us to comprehend scale effects and suggests ways to deal with its accompanying Anthropocene disorder. In the first section, I elaborate on Clark's notions of scale effects and Anthropocene disorder. In the second section, I analyze the trilogy through different scales: a cause-and-effect scale, a sociotechnological scale and a planetary scale. Finally, I show that the trilogy not only represents different scales, but also imagines how these scales are connected with each other. Furthermore, by analyzing both diegetic and non-diegetic elements such as the plot, figurative language and narrative point of

view, I argue that the trilogy possibly evokes Anthropocene disorder. I ultimately argue that shows that the paralysis caused by this disorder is not something that we should try to avoid, because it is necessary to fully grasp the complexity of Anthropocene problems.

A new approach to ecocriticism

According to Clark, ecocriticism has too often been morally and politically simplifying. He criticizes what he describes as the standard approach of ecocriticism: judging a text on features that environmental literature should ideally have, to show why a particular work is important according to those features (20). This approach is based on the presupposition that the environmental crisis is a problem of the imagination and that ecocriticism should contribute to changing this cultural imaginary. Clark thinks that the importance of the cultural imaginary for changing modes of environmental destruction is exaggerated. He asks: "How far is much environmental criticism vulnerable to delusions that the sphere of cultural representations has more centrality and power than it in fact has?" (21). Because of this delusion, ecocriticism has neglected the fact that fields like economy, meteorology, biology and scale effects also have a profound effect on the environmental crisis.

To tackle this problem of ecocriticism, Clark proposes a new approach that takes the complexity of the environmental crisis into account. He bases this approach on Braden R. Allenby and Daniel Sarewitz's book *The Techno-Human Condition* which suggests three scales, or 'levels', to represent the complexity of technology. Clark argues that these levels can be observed in the Anthropocene as well (6). The first level corresponds to instrumental technology and simple cause-and-effect relationships (7). The second level is already less predictable and more complex, which Allenby and Sarewitz define as a socio-technological system. Think for instance of technological companies that deal with customers, employees and the law (7). In Level III, however, cause-and-effect relations have become incalculable and unpredictable. An example is driving an automobile, which is not only a simple mode of transportation or an economic factor, but which rather "co-evolved with significant changes in environmental and resource systems; with mass-market consumer capitalism; with individual credit; with oil spills..." (7). Driving a car has now become a meaningful action all the way down to Level I, because the automobile has detrimental effects for the environment at Level III.

Clark characterizes the Anthropocene as the emergence of Level III problems (9). The difficulty with these problems is that they "defy our ability to model, predict or even understand them" (8). Furthermore, Level III problems produce scale effects: they are not confined to Level III but also intrude the other scales and modes of thought that belong to them. Just as with the microplastic pollution mentioned earlier, "the Anthropocene manifests itself in innumerable possible hairline cracks in the familiar life-world, at the local and personal scale of each individual life" (9). I like to add that this is not only about human life, but about all life forms.

With his ecocritical approach, Clark wishes to help comprehend Level III problems (9). These problems are not visible or tangible, but from an ethical viewpoint it is still necessary that we act upon them. The question is: how? How do we make sense of our decisions and actions on a planetary scale? How should we tackle scale effects? Clark argues that an awareness of scale effects may lead to a feeling of paralysis. He defines this paralysis, which he names Anthropocene disorder, as "a lack of proportionality, not out of a sense of old norms of consideration and demarcation calling to be restored, but of a loss of proportion tout court, vertiginously and as yet without any clear alternative" (147). Note that Clark writes that this lost demarcation "does not call to be restored". The paralysis caused by an awareness of Level III problems does not have a solution that will fix the problem, nor can Level III problems themselves be fixed. Clark argues that the only option is to "loosen" the paralysis (12). This means that there might not be a way out of the paralysis, but that we can nevertheless try to make it less dominant. Clark wants ecocriticism to "work through the conflicting, even contradictory demands of various environmental questions, if only to make their dilemma's explicit" (12).

How does Clark do this? In *Ecocriticism on the Edge*, he proceeds to do a scale-reading of 'Elephant' (1988), a short story by Raymond Carver. This story is about a man who complains about spending a lot of money to support his family members. The man lives alone: he is divorced and his children left the house. Nevertheless, his mother, ex-wife, unemployed brother and children are all in need of his money, which causes him to be left with very little himself. The story changes after the man has two significant dreams. In the first dream, he sits on his father's shoulders and feels safe and supported. In the second one, he dreams that he is still with his ex-wife and two little kids that he is able to support. After these dreams, the man gradually realizes his situation could be way worse and he learns to accept it.

The story can be read on several scales, according to Clark. First, there is the personal scale, which focuses on the inner life of the man and the possible psychological motives for his behavior. The second scale is the scale of national culture and its inhabitants (100). On this scale, the story becomes a commentary on American culture and the problems of the lower middle-class. For example, the story is an example of how consumer culture, unemployment and ideas of masculinity possibly affect personal lives. The third scale is that of the whole Earth and its inhabitants (100). Clark acknowledges that reading the story on this scale seems pretty absurd: the story does not comment on this scale at all. However, he justifies this by arguing that excluding this scale is a way of evading pressing issues in the Anthropocene.

In order to explain this, I briefly turn to Clark's notion of 'scale-framing'. Every representation or literary text is necessarily framed at a certain scale in order to form a coherent narrative. Scale-framing denotes "a strategy for representing complex issues in ways that make them more amenable to thought or overview, while at the same time running grave risks of being a simplification or even evasion" (74). Furthermore, scale-framing also necessarily implies that certain

scales are implicitly left out ("Climate Change Ironies"). As more and more Level III problems emerge in the Anthropocene, Clark argues that we can no longer evade reading literature at this scale. If anything, reading at the third scale can contribute to our understanding of why we evade these scales and how the third scale possibly relates to personal or national scales.

Returning to Carver's short story, Clark argues that interpretations on the national scale of culture become "parochial and damaging" on the third scale (102). The man and his family are indeed quite poor for the standards of American society, but throughout the story the characters stress their need to consume. For instance, the brother of the main character laments the fact that he has to sell his TV. The main character himself complains that he cannot buy the stuff he used to buy or eat out at restaurants as much as he used to. It becomes apparent that the characters are entrapped in an economic system that is not only entirely focused on consumerism, but that is also damaging to the environment. Clark adds that "the larger the scale, the more thing like becomes the significance of the person registered on it" (103). On the third scale, the characters in the short story turn into pawns, and we possibly imagine millions of similar households whose lifestyle is damaging to the environment.

The question arises why it is relevant to particularly read *literature* on this scale. Clark's reading of 'Elephant' on the third scale has little to do with the story itself, and it could arguably just as well be expressed through scientific texts. However, Clark argues that in scientific texts, "the suppression of detail is seen as a strength of work", whereas literary texts always allow open interpretations (108). A reading of a literary text does not have to be conclusive, and the interpretation does not have to choose between different scales to judge a text. As for 'Elephant', Clark stresses that the three different scales conflict with each other, but that reading literature on different scales "underlines the fragility and contingency of effective boundaries between public and private, objects and persons, the 'innocent' and 'guilty', human history and natural history, the traumatic and the banal, and (with technology) the convenient and the disempowering" (106). Scale-readings, therefore, make explicit which scales are present in a literary text and which are evaded, and trouble the boundaries between these scales.

In this light Clark's wish to loosen the paralysis of Anthropocene disorder through scale-readings possibly makes more sense. There is simply no way to reconcile different scales or find a clear-cut solution for scale effects. The magnitude of scale effects may produce the feeling that we will never unravel how different scales interrelate and how our personal decisions intersect with national or planetary scales. However, Clark argues that ecocriticism (and, I would add, people in general) can take responsibility for this feeling of paralysis and start investigating how different scales interrelate, so that we might change our perspective on them. In the next section I will argue that *The Southern Reach* is particularly well suited for this task.

A scale-reading of The Southern Reach

The first part of this scale-reading focuses on the three scales as introduced by Allenby and Sarewitz. I demonstrate how the three scales are present in the trilogy and explain the ecocritical message this conveys. But before moving on with my interpretation, it is useful to briefly elaborate on the narrative structure of *The Southern Reach*. The trilogy consists of three novels: *Annihilation*, *Authority* and *Acceptance*. *Annihilation* revolves around the twelfth expedition into Area X, told from the first-person perspective of the biologist. In *Authority*, the reader learns more about the history of Area X and the Southern Reach, the organization that investigates Area X. This novel is told from the third-person limited perspective of Control, the new director of the Southern Reach. Control took the place of Gloria, the former director, who died of cancer and left the organization in disarray. In *Acceptance*, the narrative point of view is both second- and third person. Each chapter switches to a different focalizer and takes place in a different moment in time, which makes the narrative non-linear.

Through these different perspectives and focalizers an intricate plot unfolds. In the first novel, the biologist and the other expedition members discover a tunnel that was not indicated on their maps of the area. When descending the tunnel, which spirals down into the ground, the biologist notices that it breathes. The tunnel is inhabited by a creature that the biologist names 'the Crawler'. She believes that this alien-like creature is the cause of Area X. More strange things happen: the biologist accidentally inhales spores in the tunnel, and over the course of the novel she notices changes in her body. Furthermore, she discovers that the former director, who leads the expedition, hypnotizes the expedition members. By the end of the first novel, the biologist is the sole survivor of the expedition, although the changes in her body increase and the question is raised whether she is still fully human.

Where *Annihilation* leaves a lot of questions unanswered, the second and third novel provide more information. In *Authority*, the biologist is found in an empty parking lot and taken to the Southern Reach. When she is interrogated by Control, she repeatedly emphasizes that she is not the biologist (195, 221). Meanwhile, Control tries to find out more about Area X and the organization, but quickly gets lost in the labyrinth of information. He is also opposed by Grace, the assistant director of the Southern Reach, who purposefully thwarts Control's attempts to lead the company. At the end of *Authority*, the invisible border of Area X expands. Control decides to leave the Southern Reach and follow the biologist, who escaped from the Southern Reach, into Area X. In *Acceptance*, it becomes clear that the biologist is actually a doppelgänger of the biologist, created by Area X. She goes by the name of Ghost Bird. Furthermore, the reader learns that the Crawler used to be the lighthouse keeper of the area before it turned into Area X, named Saul. The novel follows his story of how he turned into the Crawler. The perspective of Saul, as well as of Gloria, form the background of *Acceptance*, while the novel simultaneously revolves around the perspectives of Ghost Bird and Control as they make their way into Area X. Throughout the final novel, the characters all work their way towards acceptance of their new, weird environment.

How does the trilogy relate to Level I, II and II? Level I is present in the trilogy through the attitude of the scientists of the Southern Reach towards Area X. In *Authority*, Control learns that sometime after the border appeared, a group of scientists conducted 'the rabbit experiment'. The scientists herded two thousand rabbits into to the border, in the hope that "the simultaneous or near-simultaneous breaching of the border by so many 'living bodies' might 'overload' the 'mechanism' behind the border [...]" (55, emphasis in original). Although the passage is written from a third-person perspective, the focalizer in this quote is Control. The words in between brackets suggest that Control wants to emphasize that he copied those words from the scientists, indicating that he does not agree with it. The brackets furthermore draw attention to the ideas behind the experiment: Area X is a mechanism that works through input and output. The scientists try to discover how the mechanism works by trying to 'break' the mechanism. Furthermore, the juxtaposition between the 'living bodies' and the 'mechanism' suggest that the scientists do not think of Area X as a living, natural entity. The rabbit experiment leads to nothing: Area X does not react at all. Most of the rabbits simply disappear into Area X. Later, some of the rabbits reappeared, but no abnormalities could be found in their bodies. This indicates that Area X cannot be understood through an approach that only considers a Level I scale. When Area X is taken to represent nature as a whole, this example can also be understood as an ecocritical message: we can no longer approach nature as if it is a machine that works through input and output and as if it is a non-living entity.

Authority also portrays the inadequacy of a Level II scale (a socio-technological system) to understand Area X. The Southern Reach organization can be understood as a socio-technological system. The organization is dysfunctional: they deal with a lack of money and employees, conflicting viewpoints and goals within the team, and pressure from superiors. This is for instance portrayed through imagery of decay and decline. When Control describes the Southern Reach, he constantly stresses the ramshackle conditions of the building. For example, on his first day at the organization, he notices that "The floor beneath his shoes was grimy, almost sticky. The fluorescent lights above flickered at irregular intervals, and the table and chairs seemed like something out of a high school cafeteria" (20). The sticky floor, flickering lights and outdated furniture invoke an image of decadence and suggest that socio-technological systems are horribly *outdated* when presented with an Anthropocene problem.

Furthermore, the conflicting viewpoints in the team are illustrated by Grace's attitude towards Control. She constantly undermines Control's authority and plans because she personally dislikes him. Grace and Gloria were good friends, which is supposedly the reason for Grace's hostile behavior towards Control. Gloria also has personal motives that conflict with the organization's goal. She became obsessed with Area X and neglected her job as director. Eventually, she even organizes a secret expedition into Are X without telling her colleagues and superiors. Finally, the conflicting motives and goals within the organization are illustrated through the mysterious 'Voice'. Control has been told that he has to report his findings to this unknown superior, but instead the Voice hypnotizes

and manipulates him. Later, the reader learns that this Voice is actually Lowry, the only survivor of the first expedition into Area X. In this way, *Authority* imagines how an attempt to understand Area X is troubled by the complexity of a socio-technological system. When Area X is understood as a Level III problem, the inadequacy of the Southern Reach becomes a metaphor for society's inadequacy in dealing with scale problems in the Anthropocene. Therefore, the novel sends out an ecocritical message: the socio-technological systems that we have now are not able to deal with problems in the Anthropocene.

Authority also imagines the paralysis that may arise when people try to understand problems in the Anthropocene. Especially Control feels paralyzed in his job as director and his attempts to understand Area X. On his second day at the Southern Reach, he mentions that he felt like a "ponderous moaning creature trapped in the mire" (41). Besides evoking the image of being stuck in the mud and not being able to move, the comparison with a "moaning creature" is striking. In Annihilation, the biologist encountered a moaning creature in the woods, but Control does not have this information. His remark alludes to the interrelatedness of events at Area X and the Southern Reach. The fact Control himself cannot see these connections alludes to the limits of the human scale when thinking about Anthropocene problems. Throughout Authority, Control starts feeling more and more confused. But although, as he says, "details were beginning to swallow him up" (193), he does not stop trying to understand the Southern Reach and Area X. This is in line with Prendergast's argument that the trilogy shows that the "horrifyingly ineffable" is just another context for practical action (337). Therefore, Authority portrays the complexity of socio-technological systems, but it also conveys that this complexity is not a reason to stop trying to understand it.

Now that I have analyzed Level I and II, how are Level III problems portrayed in the trilogy? One way in which the novel imagines Level III problems (or Anthropocene problems) is through understanding Area X as a metaphor. Area X is surrounded by an invisible border and does not have a clear beginning in time. Although the border came down on a specific day, strange events had been going on along the coast for years. Furthermore, although the Southern Reach detected an invisible border when entering Area X, no one knows how big the area actually is. Both examples appeal to the idea that Anthropocene problems are too big to be isolated in time or space. In Area X itself, time and space are also warped. For example, when the biologist finds the journal of her deceased husband, who also went to Area X, she learns that it took them seven days to get from their base camp to the lighthouse, but only four to return (163). In *Acceptance*, the assistant director of the Southern Reach, named Grace, lived in Area X for three years after the border shifted. But logically, she could have only been living there for two weeks (144). The passing of time in Area X is therefore very unpredictable. In this way, Area X resembles both Clark's Anthropocene problems and Morton's hyperobjects.

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¹ From here on I will refer to Level III problems as Anthropocene problems.

Another way in which Anthropocene problems are imagined is through the attitude of the characters towards Area X. An example of this is when the biologist, the main character of *Annihilation*, thinks about the tunnel they discovered in Area X. She remarks: "but there is a limit to thinking about even a small piece of something monumental. You still see the shadow of the whole rearing up behind you, and you become lost in your thoughts in part from the panic of realizing the size of that imagined leviathan" (93, emphasis in original). With the discovery of the tunnel, the biologist starts to realize the size and scope of the mystery of Area X. A similar thought is expressed in the second installment of the trilogy when Whitby, one of the scientists of the Southern Reach, proposes a new approach to understanding Area X. Whitby's approach is inspired by a wine term, 'terroir', which is "the sum of a the effects of a localized environment, inasmuch as they impact the qualities of a particular product" (Authority 131). Whitby thinks that the Southern Reach focuses too much on collecting and measuring scientific data, and that they should start with a more all-encompassing approach by taking more factors into account, like the natural and human history of the area where Area X originated. Control is skeptical about this approach, because he believes that "something far beyond the experience of human beings had decided to embark upon a purpose that it did not intend or allow humans to recognize or understand [...]" (132). Later he remarks: "How did you factor ghosts into any terroir?" (133). Whitby's approach attempts to take a larger scale into account, but Control believes the cause of Area X is beyond human comprehension. That is why he evokes the image of a ghost: he can only imagine that it must have been something supernatural that caused Area X.

The thoughts of the biologist and Control about Area X are typical for the way we think about Anthropocene problems. Both mention the limits of the human perspective, which connects to Clark's argument that one of the reasons why we cannot imagine Anthropocene problems is because we are bound to the scale of our daily human perception (30). Furthermore, the biologist and Control both imagine the mystery of Area X as something imaginary or supernatural because they suspect that there is a lot more to Area X than they can see. Therefore, it ties in with Anthropocene disorder, which is (among other reasons) caused by "the gap between what I can see and what may really be happening" (Clark 140). The biologist and Control's confusion and misunderstanding also signify that Anthropocene problems cannot be understood through traditional ideas about truth and meaning, as both characters struggle to understand Area X,

Up until now I have interpreted Area X as a metaphor for Anthropocene problems, but it is also useful to interpret Area X as a synecdoche. In "Disintegration. Jeff VanderMeer's *The Southern Reach*", Idema proposes to interpret Area X as a synecdoche. He explains that "Area X can be read as a local manifestation of Gaia" (116), drawing on James Lovelock's Gaia theory. This theory entails that the earth is a self-regulating and self-restoring system (115). The Gaia theory transforms our general conception of the planet as a passive place that we inhibit, to an autonomous and active entity that we are part of. For example, the scientists of the Southern Reach are constantly looking for a cause or for explanations that are in or behind Area X, but the biologist senses that Area X itself is an

autonomous actant (118). Idema adds that he is in favor of "thinking synecdochically" as opposed to metaphorically. To think synecdochically means to recognize that "action and purpose are distributed across spatiotemporal scales, the small and the large always connected but never reducible to the other" (118). This way of thinking is also what Clark wants to achieve with his scale-readings. Therefore, I like to add that thinking synecdochically is an interesting tool for scale-readings. Apart from the Gaia theory, Area X could then be interpreted as a synecdoche for Anthropocene problems. This would entail that Level I, II and III problems are not isolated, but rather part of one another. For instance, we have seen that the personal lives and motives of the characters interrupt the sociotechnological scale. Furthermore, Level I problems are embedded in Level II: the cause-and-effect approach of Level I is reflected in the strategy of the socio-technological scale of the Southern Reach: the organization is focused on extracting a reaction of Area X and on understanding what *caused* it and why.

By analyzing in which ways *The Southern Reach* represents Level I, II and III problems, it has become clear that the trilogy signals that we need new ways to think about Anthropocene problems. In particular, we need different ways to understand problems that transcend our human, day-to-day scale. We have already seen that the Level I, II and III problems in the trilogy are not isolated, but rather connected. In the next section I elaborate on how *The Southern Reach* imagines different ways to think about Anthropocene problems by its portrayal of the interrelatedness of different scales. However, as Clark points out, "the kinds of comprehension that do emerge can be illuminating but also alarmingly close to being paralyzing" (21). Therefore, I also demonstrate in which ways the trilogy deals with this paralysis.

Loosening the paralysis of Anthropocene disorder

What does it mean to loosen the paralysis of Anthropocene disorder? The paralysis of Anthropocene disorder entails a feeling of a loss of proportion and an inability to understand or respond to problems in the Anthropocene (141). According to Clark, this possibly results in disproportional responses to the Anthropocene (143). Furthermore, these responses often attempt to remove the paralysis by reducing the planetary scale to a familiar scale, thereby running the risk of oversimplification. It is therefore necessary to realize, first and foremost, that Anthropocene problems cannot be solved. However, this leads to an impasse: awareness of Anthropocene problems is necessary in order to "avert, resolve, mitigate or at least comprehend ecological problems" (Clark 21), but at the same time this leads to a paralysis that should not be removed. This is why Clark argues that we can (and should) only *loosen* the paralysis. From the above, I therefore draw the conclusion that the paralysis of Anthropocene disorder is not problematic, but rather *necessary*. It presupposes an awareness of Anthropocene problems, which is what we need to be able to respond to environmental problems.

As we have seen, one way of creating awareness of Anthropocene problems is through scale-readings, as they make us aware of the scales that are implicitly present in a literary text. A second way of creating awareness is through imagining the interrelatedness of scales and by showing that scales cannot be understood in isolation. As Clark states, the reason why Anthropocene problems are difficult for us to comprehend is because we usually perceive the world on a limited and human scale (30). This is where literature can help out: literature is not bound to a certain time or scale but can play with these dimensions by shifting perspectives or by breaking up a chronological narrative with flashbacks or flash-forwards. As we have seen in the previous section, *The Southern Reach* plays with multiperspectivity and non-linear narrative, forcing the reader to imagine different scales and the interrelatedness between them. In the remaining part of this section I elaborate on other ways in which *The Southern Reach* possibly loosens the paralysis of Anthropocene disorder.

In *The Southern Reach*, the connections between different scales are imagined through both diegetic and non-diegetic elements. First, let me elaborate on the diegetic elements. In *Acceptance*, the reader learns how Saul became the Crawler. One day, as Saul was going about his usual business as a lighthouse keeper, he notices a flicker of light in his lawn that he cannot identify. He describes it as "a tiny shifting spiral of light" and as "a sliver" (*Acceptance* 25). When he tries to pick it up, the sliver enters his thumb and it makes him feel different, like there is something in the corner of this eye (95). This undefinable object eventually turns Saul into the Crawler. When his transformation is almost final, he remarks that "It was just a tiny thing. A splinter. And yet it was as large as entire worlds, and he was never going to understand it, even as it took him over" (325).

The significance of this passage is that a tiny and harmless object, which Saul can only imagine to be a splinter, acquires an immense meaning on a larger scale. Furthermore, it makes Saul aware of the fact that his human perspective is limited, because he starts seeing things in the corner of his eye that he cannot quite grasp. Even when his transformation is almost final, he still does not understand what is happening. Similarly, in *Annihilation*, the biologist becomes infected with Area X when she accidentally inhales spores. The tiny spores have a huge effect: the biologist eventually turns into a creature of unfathomable dimensions. Like Saul, the biologist finds it difficult to understand and describe the effect of her infection: she often refers to it as some kind of "brightness" (*Annihilation* 83). These examples can therefore be understood as a metaphor for scale effects, as their significance only becomes visible on a larger scale.

Another way in which *The Southern Reach* loosens the paralysis of Anthropocene disorder is by imagining the disorder itself. As we have already seen, Control suffers from this disorder, since he feels paralyzed in his attempts to understand Area X. However, the trilogy can also produce this effect in the reader, through non-diegetic elements. Idema suggests that *The Southern Reach* can be seen as an example of what Morton calls 'ambient poetics', which designates a "literary strategy in which the reader gets lost in a (textual) environment that upsets basic cognitive habits, including the habit of neatly separating nature from culture and the nonhuman from the human" (Idema 105). First of all,

the multiperspectivity in the trilogy and the non-linear narratives do not only suggest that the different scales are interrelated, but they can also produce confusion in the reader. *The Southern Reach* upsets the reader's basic day-to-day scale by constantly switching between narrative perspectives and focalizers.

In addition, the trilogy evokes a feeling of Anthropocene disorder through its ambiguous descriptions of Area X and the creatures that are a part of it. The characters in the trilogy especially have trouble with describing the things that they see. For instance, when the biologist meets the Crawler, she describes him as "A figure within a series of refracted panes of glass. It was a series of layers in the shape of an archway. It was a great sluglike monster ringed by satellites of even odder creatures. It was a glistening star (*Annihilation* 176)". It is hard to imagine a creature that is "a series of layers in the shape of an archway". A similar thing happens when Ghost Bird and Control are walking through Area X after the border has breached and they encounter something in the sky. Control describes it as "an invisible shredded plastic bag [...] except it was thicker than that and *part* of the sky too (*Acceptance* 85, emphasis in original). He also notes that this creature was "stitching through the sky" (86). Again, one could wonder how Control imagines something that is actually invisible and indistinguishable from the sky, and the unusual use of the verb 'to stitch' leaves a lot of room for interpretation on what is actually happening. These ambiguous descriptions can produce confusion in the reader, to the extent that the reader cannot imagine what is happening.

Furthermore, a feeling of Anthropocene disorder is possibly evoked through the encounter between Ghost Bird and the biologist. However, as we will see, this encounter also suggests other ways of loosening the paralysis. First, some backstory is needed: Area X clones the people that enter it and sends them back into the real world. These doppelgängers look exactly like their real versions, but they portray little emotion and hardly have any memories of what happened in Area X. Ghost Bird realizes she is not the same person as the biologist, although she inherited some of her memories. When the creature that the biologist turned into appears, Ghost Bird describes her as a "vast bulk seething down the hill through the forest with a crack and splinter as trees fell to that gliding yet ponderous and muffled darkness, reduced to kindling by the muscle behind the emerald luminescence that glinted through the black" (*Acceptance* 194). We only know that the biologist turned into a 'bulk', but we do not know what kind of bulk. This may give the reader a feeling of a loss of a sense of proportion.

I have argued, with Clark, that a certain sense of paralysis necessarily accompanies an increased awareness of Anthropocene problems, but the encounter between Ghost Bird and the biologist also imagines that this paralysis is not something we should evade. As the biologist comes closer to Ghost Bird, we read that the "great slope of its wideness was spread out before Ghost Bird, the edges wavery, blurred, sliding off into some *other place*" (*Acceptance* 195, emphasis in original). It is unclear why "other place" is emphasized and whether it is done by Ghost Bird or the narrator. The emphasis can evoke a feeling of unease or allude to the supernatural. In a philosophical sense, it

also resonates with Derrida's notion of the 'wholly other', which signifies that the other can never be fully known (Derrida 82). For Derrida, alterity is irreducible, and this applies to everything that is other than ourselves. Thus, when Ghost bird meets the biologist, she accepts that the biologist is wholly other. Furthermore, in the moments before the encounter, Ghost Bird seems to be paralyzed. Whereas Control and Grace find a place to hide from this giant creature, Ghost Bird does not move. But she also does not seem scared. When the biologist and Ghost Bird have a moment of mutual recognition, Ghost Bird "saw that the biologist now existed across locations and landscapes, those other horizons gathering in a blurred and rising wave" (196). She seems to accept that the biologist's scale is beyond her understanding.

Finally, the encounter between Ghost Bird and the biologist also suggests that we can accept the paralysis by showing the beauty of the encounter. The encounter is a culminating scene, as two non-human creatures achieve a meaningful moment of recognition, and the persistent lack of comprehension is, for the first time in the trilogy, fully embraced. In "Brave New Weird: Anthropocene Monsters in Jeff VanderMeer's The Southern Reach", Ulstein argues that the biologist has become an "Anthropocene monster". These monsters reside in the tension between the 'real' and 'normal' and the 'imagined' and 'weird' (74). Anthropocene monsters are closely linked to Morton's hyperobjects. They are "massively and unfathomably distributed in time and space" and incite feelings of fear and horror. This is comparable to Anthropocene disorder, which causes emotional disbalance and a feeling of paralysis. Ulstein proposes that we use Anthropocene monsters as a metaphor for environmental issues. Because we can often not directly perceive climate change and other environmental changes, they are literally 'imagined'. According to Ulstein, The Southern Reach shows that the monstrous can also be beautiful, and that Ghost Bird's encounter with the biologist can "evolve the reader's relationship with the monstrous" (88). I like to add to this that the encounter can also evolve the reader's relationship with Anthropocene problems, as it shows that the paralysis one may feel can be transformed into a positive experience. In this way, the novel suggests to the reader that the Anthropocene is not just scary, but can also be, in Clark's words, intellectually liberating (xi).

Conclusion

As global warming, ocean pollution and extinction of animal species increase, plastic intrudes the bellies of marine mammals, and humans are confronted with the moral significance of their mundane daily actions, it is time to start imagining ways to see beyond our human day-to-day perspective. It is, according to Clark, high time that ecocriticism starts taking up the issue of scale. Therefore, ecocritics should engage in scale-readings, which attempt to expose the different scales that are presupposed in a literary text. With his scale-oriented approach to ecocriticism, Clark hopes to increase understanding about the fact that environmental disasters do not just happen on a huge and seemingly invisible scale,

but rather that living in the Anthropocene entails that all scales (the personal, the socio-technological and the planetary scale) are interrelated.

In this thesis I have tried to show how The Southern Reach imagines scale effects and Anthropocene disorder. In the first section, I have elaborated on Clark's approach to ecocriticism and his concept of Anthropocene disorder. In the second section, I have analyzed the trilogy using three scales. The first scale is that of direct cause-and-effect relationships, the second scale represents a socio-technological system and the third scale, finally, represents what I have referred to as Anthropocene problems. By analyzing the various ways in which the trilogy represents these scales, I have argued that the trilogy imagines how first- and second scale approaches are insufficient when dealing with Anthropocene problems. Besides illuminating the various approaches and scales that we can apply when thinking about the Anthropocene, the trilogy furthermore imagines how scales are interrelated and irreducible. The Southern Reach contains innumerable tiny details that are seemingly all connected, although it is often unclear why. This possibly causes a feeling of paralysis when reading the trilogy. However, it is important to realize that Anthropocene problems cannot be fixed. Therefore, I have also focused on how the trilogy willfully produces a feeling of paralysis in the reader through non-diegetic aspects like the narrative point of view and figurative language. Finally, I have showed how the encounter between Ghost Bird and the biologist suggests that the possible paralysis is not something to shun away from, but rather something to accept and investigate.

However, I cannot stress enough that accepting the paralysis does not mean that we should forget about it. On the contrary, the feeling of paralysis has to be investigated and explored in order to understand why it seems that humanity has such difficulty with comprehending Anthropocene problems. Any attempt to grasp the complexity of Anthropocene problems will result in a feeling of dizziness and maybe even paralysis. This is what is beautifully portrayed in *The Southern Reach*: the characters are overwhelmed when they try to understand Area X, and this feeling is possibly passed on to the reader. The trilogy can therefore be considered a kind of exercise in dealing with Anthropocene problems, as both the characters and the reader go through phases of utter confusion. The encounter between Ghost Bird and the biologist can spark hope that we can ultimately embrace our incomprehension of scale problems in the Anthropocene, while at the same acknowledging that the lack of proportionality "does not call to be restored" (147).

This thesis has only managed to cover some of the ways in which *The Southern Reach* imagines the connections between scales. Through different perspectives, focalizers, literary genres and characters, the trilogy writes of childhood traumas, failing relationships, scientific discourse, horror, the supernatural, religion and rituals, various sexualities and ethnicities, the pastoral, power relationships, and finally of course humanity's relationship with nature. Moreover, in some way, all these themes are connected to each other, which at times makes reading the trilogy a vertiginous experience. For further research, I suggest that scholars and ecocritics take up the issue of scale by performing more scale readings, to increase awareness about Anthropocene problems. Furthermore, it

would be interesting to investigate the relation of Anthropocene disorder and its paralysis to ecopsychology, as the unhealthy state of our earth is possibly reflected in the unhealthy state of people's minds and body when they suffer from Anthropocene disorder. All in all, it is promising that a trilogy like *The Southern Reach* was a commercial success and has been subject to multiple ecocritical interpretations. Hopefully, this signifies that Clark was right when he wrote that the Anthropocene is not only frightening, but also intellectually liberating.

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