

# The Weird and the Meta in Jeff VanderMeer's *Dead Astronauts*

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## Abstract

Originating in the works of early 20<sup>th</sup>-century authors such as H. P. Lovecraft and Algernon Blackwood, weird fiction is experiencing a renaissance in contemporary literature. Several scholars have presented this literary mode as uniquely suited to speak to the anxieties generated by the current ecological crisis. In this essay, we examine Jeff VanderMeer's *Dead Astronauts* (2019) as part of a wave of recent works that mark a sharp departure from the immersive strategies with which weird fiction is typically associated. We argue that this encounter between the weird and the "meta" is particularly effective in bringing out the strange entanglement of human societies and the nonhuman world in times of climate crisis, and serves as a powerful model for future iterations of the weird.

## Keywords

Weird fiction, ecological crisis, metafiction, strange loops, experimental fiction

## Introduction

The contemporary weird—often referred to as the "New Weird"—is a hybrid literary mode that builds on a combination of fantastic, horror, and science fiction elements. It draws inspiration from early 20<sup>th</sup> century works by authors such as H. P. Lovecraft and Algernon Blackwood—the "Old Weird"—but also distinguishes itself from these predecessors' problematic antihumanism and racism.<sup>2</sup> As numerous commentators have pointed out, the New Weird speaks to a far broader range of issues than the Old Weird, including environmental questions brought into view by today's climate crisis.<sup>3</sup> The affective atmosphere of weird fiction channels the uncertainty of a world in the throes of climate change and environmental devastation. Nowhere is this ecological dimension more explicit than in Jeff VanderMeer's acclaimed renditions of the weird: in novels such as *Annihilation* (2014) or *Borne* (2017) the human fuses, ambiguously and disturbingly, with nonhuman creatures and ecosystemic processes. Yet, with his 2019 *Dead Astronauts*, VanderMeer takes the weird in a new direction by embracing literary self-reflexivity and formal experimentation. The goal of this article is to discuss the broader stakes and potential of weird fiction's turn to the "meta" in times of ecological crisis.

The weird, writes Roger Luckhurst, inhabits an "unnerving edgeland," it thrives in the blurring of boundaries—between literary genres, cultural categories, human societies and more-than-human processes.<sup>4</sup> It is "a place for potentially radical disarticulations and reformulations of traditional binaries, starting with self and other, subject and object."<sup>5</sup> Those of us familiar with postmodernist experimentations might thus expect weird fiction to be forthcoming in disarticulating and reformulating another divide—namely, that between the storyworld, its textual construction, and the reader's everyday reality.<sup>6</sup> That is the traditional province of metafiction: by foregrounding and challenging the conventions that underlie fictional representation, metafictional texts stage a collision between the real world and the storyworld.<sup>7</sup> A paradigmatic example is the opening of Italo Calvino's *If on a Winter's Night a Traveler*, with its fictional reader—addressed in the second person—trying to find a comfortable position from which to start reading a novel that is also titled *If on a Winter's Night a Traveler*. That

beginning is an instance of metalepsis in Gérard Genette's sense: a stand-in for the real reader enters the storyworld, while a version of the novel we are reading is embedded, paradoxically, within itself.<sup>8</sup> Metafiction and metalepsis go hand in hand in postmodernist fiction.<sup>9</sup>

Calvino's famous beginning involves readers in a metaleptic game while inviting them to playfully trouble the border between the real and the fictional. Does the weird's "unnerving edgeland" reach beyond the edge of fiction itself, implicating the reader in a similar way to Calvino's? Certainly, in both the Old and the New Weird there are occasional suggestions that the events at the core of the narrative could overstep the boundaries of fiction and threaten the flesh-and-blood reader as well. Lovecraft's oeuvre stages a profusion of texts, journals, cosmic histories that seem to resonate metaleptically with the book readers are holding in their hands. For instance, the mysterious grimoire called the *Necronomicon* is a recurring reference in Lovecraft's fiction and letters, though he never actually wrote such a book. Still, fans and writers have in the last century playfully perpetuated Lovecraft's hints that the text exists in real life. Yet these intimations of metalepsis remain implicit and oblique, and ultimately support, rather than undercut, an uncritical style of reading that takes the fictional world at face value. Weird fiction, including the ecologically oriented New Weird, has traditionally steered clear of explicitly metafictional devices that puncture the reader's immersion in a storyworld and foreground the materiality of the text they are reading. This choice, as VanderMeer himself remarks in a passage that will be discussed in the next section, is in line with the New Weird's investment in an immersive poetics.

Yet, over the last ten years, metafictional devices have started emerging in the work of contemporary authors affiliated, more or less directly, with the weird tradition. These authors include N. J. Campbell, Caitlín Rebekah Kiernan, Paul La Farge, Victor Lavalle, and Reza Negarestani; some of their most significant novels—for instance, Lavalle's *The Ballad of Black Tom* (2016) and La Farge's *The Night Ocean* (2017)—engage playfully with Lovecraft's weird writings, using metafiction to disrupt straightforward immersion and unsettle the conventions of this literary mode (and, with them, the Old Weird's questionable politics). VanderMeer's *Dead Astronauts* is an excellent illustration of the weird's growing literary self-reflexivity, but it differs from these other texts in that it frames its self-reflexivity in an explicitly ecological vein. More specifically, we argue in this article that the metafictional blurring of ontological divides in *Dead Astronauts* underscores humankind's capture in ecosystemic processes beyond the human, and calls for a mode of readership that is attuned to human-nonhuman entanglement.

Weird fiction in general speaks to a body of theory that has presented human-nonhuman relations in the Anthropocene as inherently strange. For Timothy Morton, as we will see, humankind's "enmeshment" in more-than-human processes creates a strange loop in which anthropocentric hierarchies break down. Importantly, this loop is structurally reminiscent of the workings of metafiction. By integrating metafictional strategies, VanderMeer's *Dead Astronauts* thus continues the New Weird's exploration of ecological issues but lend that exploration unique resonance by recreating, through metafictional form, the weirdness of the ecological crisis. Put otherwise, metafiction allows the weird to fully enact the ontological questioning that Jon Hegglund, in articulating a "weird narratology," sees as central to VanderMeer's work: "a text evokes a storyworld that itself draws our attention to the ontological messiness that prevents a clear separation between [text and world]."<sup>10</sup> That kind of "ontological messiness" remains relatively covert in VanderMeer's *Annihilation* (Hegglund's case study), although—as Hegglund points out—hints of metafiction can be found throughout VanderMeer's "Southern Reach" trilogy. But the messiness becomes far more radical and sustained in VanderMeer's

*Dead Astronauts*, a work in which a metafictional foregrounding of textuality undercuts the very ontological coherence of the storyworld and problematizes immersive reading. Examining VanderMeer's novel offers an opportunity to discuss the New Weird's potential for engaging ecological issues in times of climate crisis. In the next section, we will contextualize our analysis by discussing the ecocritical limitations of immersive ways of reading.

### Immersion and Its Discontents

In the introduction to an influential anthology of New Weird work he co-edited with Ann VanderMeer, Jeff VanderMeer argues: "postmodern techniques that undermine the surface reality of the text (or point out its artificiality) are not part of the New Weird aesthetic."<sup>11</sup> By "undermining the surface reality of the text," VanderMeer is presumably referring to strategies that disrupt the reader's immersion in the storyworld by drawing attention to its textual construction. Narrative theorist Werner Wolf offers a useful vocabulary to talk about such disruptions. For Wolf, the "aesthetic illusion" is "a feeling of being recentered in a possible world as if it were (a slice of) life, a feeling that prevails in spite of the fact, and our latent awareness of it, that this impression is triggered by a 'mere' artefact."<sup>12</sup> The aesthetic illusion is thus an experiential state related to what readers and scholars refer to as "immersion."<sup>13</sup> Wolf raises the important point that the aesthetic illusion is not *delusion*: even when readers are fully immersed in a story—for instance because they are emotionally invested in the characters' trajectories, they find the setting particularly vivid and lifelike, and so on—they retain a "latent awareness" of this being a fictional text devised by a flesh-and-blood author. Wolf thus sees fictional audiences as dynamically shifting into and out of an immersive state, depending on textual devices that manipulate their attention and potentially highlight the constructedness of the text. In engaging with metafiction, this awareness is likely to move to the foreground of readers' consciousness: the aesthetic illusion is thus problematized, "the surface reality of the text" undermined (to borrow again VanderMeer's words).

The weirdness, in VanderMeer's assessment of the New Weird, remains contained within the boundaries of the storyworld. As we have suggested above, in the years after the publication of the VanderMeers' anthology (in 2007), the weird has become increasingly self-aware as a literary mode, so that VanderMeer's assessment of "New Weird aesthetic" is probably no longer accurate today. Nevertheless, the significance of this metafictional turn has yet to be discussed in full, particularly in the context of arguments (advanced by Robertson, Luckhurst, and others) on the weird's attunement to ecological issues. Conventional weird fiction draws in the reader, eliciting immersion and the aesthetic illusion, but refuses to explicitly problematize the divide between the storyworld and the reader's everyday reality. Of course, that divide can always be bridged by way of interpretation: for example, Heggland's already mentioned reading of VanderMeer's *Annihilation* traces the emergence in the novel of a sense of nonhuman agency and materiality that troubles the seeming anthropomorphism of the first-person narrator. Interpretation attests to the fact that fiction is always subject to real-world relevance, and that readers routinely bring to bear everyday knowledge and values on even the most immersive storyworlds.<sup>14</sup> While all readers interpret fiction in the sense of basic text comprehension, not all of them engage in interpretation in the scholarly meaning of the word, which involves explicit reflection on the cultural significance of a text.<sup>15</sup> When fiction—including but not limited to weird fiction—is read for the sake of the aesthetic illusion alone, it may turn into an escapist activity that does *not* foreground substantive interpretation and thus the negotiation of real-world relevance.

Yet, in laying the groundwork for what she calls an “econarratology,” Erin James draws a direct connection between immersion and the ecocritical value of narrative: “Econarratological readings of narrative storyworlds, via their analysis of the textual cues that aid the immersion of readers into subjective spaces, times, and experiences, help us appreciate the fact that aesthetic transformations of the real really do stand to reshape individual and collective environmental imaginations.”<sup>16</sup> James argues that reading fiction can impact the environmental imagination, a concept that grows out of Lawrence Buell’s ecocritical work and denotes the way in which the nonhuman environment is experienced and understood in its relationship with human communities.<sup>17</sup> Consistently throughout James’s book, the reshaping of the environmental imagination is linked to literary narrative’s power to elicit an immersive response (Wolf’s aesthetic illusion).<sup>18</sup> Yet, as we have argued above, immersion can offer no guarantee of interpretive negotiation—in this case, of humankind’s position vis-à-vis nonhuman realities—because it is just as likely to reinforce a sense of separation between storyworlds and everyday reality. Put otherwise, immersion may tip over into an experience in which the real-world relevance of fiction becomes secondary to the intrinsic enjoyment of believable characters, a vivid setting, and a well-constructed plot.

By piercing—provocatively—the aesthetic illusion, metafictional strategies can prevent this slide into escapism, keeping the reader on the edge between immersion and a more critical appraisal of fiction. Merja Polvinen has argued that—contrary to widespread assumptions—metafictional writing does not *inhibit* immersion, but only complicates and enriches it through increased awareness of fictionality.<sup>19</sup> Polvinen sees this combination of immersion and self-reflexivity as central to the experience of reading *The City & the City*, a novel by another established New Weird author, China Miéville, whose works also reflect the metafictional turn in weird fiction. The self-reflexive blurring of ontological boundaries between the storyworld, its textual presentation, and the real world holds particular value in an ecocritical context. Without the coexistence of immersive involvement and critical reflection based on a recognition of continuity between narrative and everyday reality, literature would not be able to realize, to quote again James, its “essential role . . . in protecting the earth.”<sup>20</sup> The metafictional slant of VanderMeer’s *Dead Astronauts*, which contradicts the writer’s earlier statements about “New Weird aesthetic,” is so significant precisely because it acknowledges that critical reflection on the conventions underlying literary practices might be central to the weird’s intervention in debates on the climate crisis. Highlighting the artificiality of fiction and its imaginative overlap with the real world serves to heighten its emotional and ideological relevance. Through its metafictional play, *Dead Astronauts* implicates the audience—and their world—in a more-than-human drama of planetary destabilization that cannot be approached in a purely immersive fashion but calls for a more nuanced and self-conscious interpretive strategy.<sup>21</sup>

To fully understand the significance of VanderMeer’s metafictional devices, however, we need to consider how the form of metafiction itself—the paradoxical transgression of assumed ontological divides—directly mirrors the strangeness of human-nonhuman relations in the Anthropocene. That insight is sometimes thematized by New Weird fiction, including VanderMeer’s earlier novels, but only metafiction can enact it in formal terms and thus augment its impact on the reader’s environmental imagination beyond immersive reading strategies.

## Weird Loops and the Ecological Crisis

We have already mentioned metalepsis, the narratological category introduced by Genette to discuss the paradoxical transgression of ontological boundaries in fiction (for instance, the fictional reader about to start reading a novel titled *If on a Winter's Night a Traveler* in the opening of Calvino's *If on a Winter's Night a Traveler*). Metalepsis is, of course, a metafictional device par excellence, since it blurs the distinction between storyworlds and reality and thus defamiliarizes the conventions of fictional representation.<sup>22</sup> In his influential account of postmodernist fiction, Brian McHale invokes Douglas Hofstadter's idea of "strange loop" to capture the workings of metalepsis.<sup>23</sup> For Hofstadter, a strange loop is any sensory form that evokes an "ill-defined sense of topological wrongness: the inside-outside distinction is being blurred, as in the famous shape called a 'Klein bottle.'"<sup>24</sup> The same blurring of a basic distinction can be found in the metaleptic devices of postmodernist fiction, but instead of a physical boundary (the inside-outside distinction of a regular bottle) what is transgressed is the conceptual divide between a fictional storyworld and reality.

Thirty years after McHale, Timothy Morton uses the same image of a strange loop to account for a very different phenomenon—which, however, turns out to have a great deal in common with metalepsis. Referring to contemporary debates on the "Anthropocene"—a proposed term for our current geological epoch, emphasizing humanity's impact on the planet—Morton argues that the "Anthropocene names two levels we usually think are distinct: geology and humanity. . . . The Anthropocene binds together human history and geological time in a strange loop, weirdly weird."<sup>25</sup> As numerous commentators in the humanities and social sciences have shown, the current ecological crisis—which is a defining moment in the Anthropocene—prompts a reconsideration of the divide between a background of natural processes and the history of human societies.<sup>26</sup> While natural processes have long been thought of as stable and independent of human decision-making, the climate crisis reveals that industrial activities in a globalized economy are capable of dramatically reshaping "nature" through a wide array of processes: pollution causes the breakdown of entire ecosystems, the emission of greenhouse gases leads to ocean acidification and a sharp rise in global temperatures, and so on. The Anthropocene is the era in which the geological history of our planet can no longer be meaningfully distinguished from the impact of human technology—with important differences in historical responsibility, of course, between the industrialized Global North and the developing world.

If these ideas surrounding humankind's environmental impact enjoy wide circulation in the humanities, Morton's prose is uniquely attuned to the *weirdness* of this impact. Hofstadter's strange loop, with its paradoxical topology, helps Morton imagine and illustrate that weirdness. The essence of a strange loop is an unexpected boundary crossing: someone who enters a Klein bottle will think they are inside an enclosed space but, surprisingly, they find themselves where they started—that is, outside the bottle. For Morton, something similar happens when one moves across scales, from everyday actions to a planetary impact of global warming:

Every time I start my car or steam engine I don't mean to harm Earth, let alone cause the Sixth Mass Extinction Event. . . . My key turning is statistically meaningless. In an individual sense this turn isn't weird at all. But go up a level and something very strange happens. When I scale up these actions to include billions of key turnings and billions of coal shovelings, harm to Earth is precisely what is happening.<sup>27</sup>

This surprising scalar gap—Derek Woods would call it “scale variance”—is at the root of Morton’s experience of weirdness.<sup>28</sup> As we move from the mundane to the planetary and from individual action to collective agency, something unexpected enters the picture: we started with the simple gesture of turning the ignition to drive to work, and we end up with a phenomenon as abstract and remote as melting ice caps. But the weirdness goes much further. Just as in Morton’s example the everyday is weirdly bound up with the planetary, the latter can manifest itself unpredictably in the former. Think about increasingly frequent heatwaves or bouts of warm weather disrupting the seasonal cycle: these are all instances of localized weirdness whereby climate change enters the quotidian—sometimes, with devastating effects. In sum, whether we move from the individual to the global or in the opposite direction, the ecological crisis confronts us with a strange feedback loop between our human-scale experience and planetary events.<sup>29</sup> The logic of that loop is, again, a paradoxical boundary-crossing, in that the divide between individual action and nonhuman agency is collapsed or at least challenged in profoundly destabilizing way.

That weird loop discussed by Morton helps explain why the literary forms of metafiction and metalepsis are particularly attuned to the climate crisis. Disrupting the aesthetic illusion and challenging the separation between life and fiction are paradoxical gestures, which presuppose the very ontological categories that they seek to undermine. In the context of literature’s engagement with the climate crisis, metafictional devices thus channel the puzzling entanglement between human-scale actions and environmental realities, which complicates familiar notions of individual agency and moral responsibility. Through metafiction, an immersive mode of readership—the aesthetic illusion—is destabilized: readers project themselves into a storyworld only to discover that they haven’t left the real world behind, because they are confronted with the artificiality of the conventions that underpin fictional representation. If, as Luckhurst and Robertson have argued, the New Weird is a productive mode for the literary imagination of the ecological crisis, then metafictional strategies can play an important role in staging and channeling the weirdness of human-nonhuman relations in the Anthropocene.<sup>30</sup> Yet, the New Weird’s historical alignment with a poetics of immersion has kept it from taking advantage of metafiction—in a way that, as we have seen, may even undercut its commitment to ecological issues by favoring an escapist mode of reading. With the case study discussed in the following sections, things begin to change.

### Metafictional Strategies in *Dead Astronauts*

A superficial glance at a plot summary of *Dead Astronauts* would suggest a typical sci-fi novel focusing on time travel across multiple storylines. *Dead Astronauts* has eight focalizing characters who suffer at the hands of an evil corporation called the Company, in a postapocalyptic setting. The Company trades in biotechnologies and its influence is stretched across multiple dimensions—early in the novel we are told that the Company has “tick-engorged itself across all timelines.”<sup>31</sup> So far, so good: we have a postapocalyptic storyworld, a corporate super-villain, and the titular astronauts’ desperate quest to stop it. But when considering that at least three and a half of the characters are nonhumans whose representation is rendered via spatial gaps, temporal leaps, numbers in the margin, different font shades, and song-like repetitions, the picture becomes more complicated.

Set in the same storyworld as VanderMeer’s novel *Borne* (2017), *Dead Astronauts* broaches similar themes and motifs: environmental destruction, monstrous ecosystems, bureaucratic evil, and human-nonhuman enmeshment. On a formal level, however, *Dead Astronauts* is far more experimental than

*Borne* and *The Strange Bird*, another novella by VanderMeer set in the *Borne* universe. This is not to say that *Borne* and *The Strange Bird* are completely conventional narratives, but the limited experimentation they contain does not pre-empt an immersive reading: largely, these are works centered on a single (albeit nonhuman) protagonist who accompanies the reader in a relatively linear fashion from beginning to end.<sup>32</sup> Instead, a linear, novelistic summary fails to adequately capture two of the main goals of *Dead Astronauts*: to challenge the categories by which humans understand, control, and destroy the real world, and to enact—at the level of both content and form—a sense of nonhuman entanglement as an alternative way of experiencing that world. We argue that the metafictional strategies in particular serve to amplify the two thematic goals. VanderMeer’s experimental marriage of the weird and the meta challenges the conventions of the weird, but also of climate change fiction, as Anthropocene issues are addressed not merely at the level of subject-matter (which remains central to most definitions of climate fiction), but through formal devices.<sup>33</sup>

It might be more accurate to describe *Dead Astronauts* as a collection of interconnected stories narrated from different perspectives. The characters are bound together in a psychedelic mosaic of text that hints at, but never quite falls into, a complete story. Textual cues are purposefully inflated, hidden, or scattered and mangled, an effect which is reinforced by moments of jarring self-reflexivity, making the reading experience jagged and difficult. If we concentrate on the most striking examples of these metafictional cues, they can be grouped under the headings: shapeshifting typography, elliptical (nonhuman) focalization, and repetitive loops.

### Shapeshifting Typography

Shapeshifters roam the storyworld of *Dead Astronauts*, and sometimes their supernatural powers are rendered visually by changing the typography or the narrative perspective. One of the “dead astronauts,” Moss, has been heavily enhanced with biotechnology to the extent that she can change her physical shape at will: her mind extends across her entire body so that she can mimic organic matter and energy. VanderMeer relies on deeply defamiliarizing verbal cues to account for Moss’s perspective, a strategy that highlights the performativity and materiality of the text.

For example, Moss encounters Botch Behemoth, a monstrous fish-amphibian that hunts other discarded Company biotech creations and suitably named after the painter Hieronymus Bosch (64). To ease communication with Botch, Moss changes her shape, “letting herself go wide and shallow to cover the mud pond in a sheen of tiny green-and-white flowers lashed together like chain mail, from which something vaguely like a face held court and hailed Botch as a friend” (65). By this point in the story, the reader has had time to digest that Moss quite literally lives up to her name, but the ability to “go wide and shallow” is nevertheless a startling maneuver, leaving meaningful but defamiliarizing textual cues to interpret what is going on. The similes “like chain-mail” and “like a face” allow the reader to imagine the outcome of Moss’s movement, but the move itself is casually presented as an everyday action similar to “running” or “sitting down.”

But the materiality of the text is brought further into focus when Botch’s voice is rendered by italics and symbols associated with computer code: “<<You think you are everything everywhere. You think that the world is not everything, everywhere, around you>>” (65). Botch is criticizing Moss’s arrogant meddling into his backwater world, after which the narrator provides some explanation as to the increasingly intrusive typographic markers used in the scene: “They spoke not in fish nor in the language of moss. Because they were neither fish nor moss. Not in person-speech. Because they were not human” (65-66).

The communication between Moss and Botch is so far removed from human registers that it requires new typographical codes and markers—reliance on verbal cues is no longer enough. VanderMeer grants the text shapeshifting abilities that evoke nonhuman entanglement while destabilizing, metafictionally, the reading experience. A few pages further Moss merges her mind and body with Botch and copies him. Here, the diegetic entanglement of Moss and Botch receives a typographical counterpart, which heightens the reader’s awareness of textual materiality even further:

This is me.

This is me.

You are me.

Who are *me*? But she knew who are me. She knew. (67)

The font color changes to gray where Moss and Botch speak as one, embodying their merge visually as well as verbally. The entanglement is so powerful that it even interferes with the syntax; “she knew who are me.” Botch is revisited three times in the course of *Dead Astronauts*, with a part of Moss stuck to him as a “lingering intent that clung to the gleaming scales” (126).

This textual self-consciousness is reiterated in other ways throughout the novel, with similar examples of visuo-verbal shapeshifting puncturing the narration. Chapter six of the book, focalized by Moss’s previous human form Sarah, makes use of typographical changes to signal a recurring shift in perspective:

“You decide to write on those pages. Things you cannot say aloud, that frighten you.  
Things you don’t understand. Now a door is opening. Now a world is coming in.  
Through the pages. You know that already, but you don’t know it yet.

<< **Demon** language was something the girl picked up from her evangelical mother—the last thing. . . . Her mother thought the **demons** weren’t just **demons** but retribution from God” (175)

The passage above shows a switch, after the line break, from the present to the past tense and from second-person to third-person narration. It is framed by the same symbol as above (in code it is fittingly called a “bitwise shift operator”), where the font is gray except for “demon(s).” The third-person narrator appears to be Sarah writing in a journal and emphasizes Sarah’s psychological trauma. Sarah was abused by her mother as a child, and her subsequently homeless life near a Company facility combines the psychological demons of her childhood with the physical demons of biotechnology and corporate evil.

The you-narration and the shifting typography both signal Sarah’s mental instability; in other words, the formal features work to explicitly reinforce the strange events of the narrative. This use of “you” is, in David Herman’s terminology, “doubly deictic”: it could refer to the fictional character, but it could also address the real reader.<sup>34</sup> The mention of a world “coming in . . . through the pages” will of course increase the likelihood of this metafictional reading of the “you.” This blurring of the divide between fictional and real “you” reflects the way in which, in this storyworld, cross-species entanglement and transcorporeal transgressions are the norm.

## Elliptical (Nonhuman) Focalization

In chapters three, five, and seven, the reasonably coherent story gives way to the perspective of Botch Behemoth. These chapters are divided into one to three paragraphs per page with several lines of blank space between them, relating experiences and observations from Botch's long life in the holding ponds outside the Company headquarters. The fragments sometimes adopt an ambiguous focalization, hovering between Moss and Botch's mind:

Be calm. Becalmed. Slowed Behemoth's breathing, sent stillness awash across it, sent a fluid language scrolling across the folds of his brain. Muddled. Obscured. . . .

The inside was coming outside. The outside was going inside. Pond was desert. Desert, pond. As the Company poked and prodded Botch. Behemoth. (149)

The merge with Moss helps Botch get through experimentation and torture at the Company (rendered in part by the quotation above). Botch's experience of time and space is elliptical both in the paragraph fragments that structure his story—the gaps between the paragraphs represent uneven intervals in space and time—and in the impressionistic way this experience is communicated at the sentence level. A high frequency of parataxis—the stylistic device in which phrases and clauses are placed side by side without coordinating or subordinating conjunctions (“Muddled. Obscured.”)—creates a looping, song-like discourse, while rich imagery blends metaphors and sensory data: “a fluid language scrolling across the folds of his brain.” The first part of the quotation above moreover lacks a grammatical subject, but it is clear from the changing typography that Moss, the “lingering presence,” is the agent that has calmed Behemoth. These missing pieces of linguistic, temporal, and spatial structures constitute what we call elliptical nonhuman focalization: if “focalization” is the standard narratological term for the narrative presentation of experience, Botch's experience can never be presented *directly* in *Dead Astronauts* but only be accessed through the gaps and fragments of VanderMeer's prose.<sup>35</sup>

VanderMeer's active use of these strategies draw attention to the materiality of the text itself, where the nonhuman embodied experience is evoked *in* text and *as* text. The inherently speculative access to the nonhuman characters' experience is enacted and inflated by purposefully playing with the aesthetic illusion. The implicit question is not whether nonhuman experience *can* be realistically accessed by way of human language, but whether the inevitable failure to do so might not be generative of “a kind of understanding even when something cannot be understood,” one of the defining qualities of the weird.<sup>36</sup> But the meta is also a sort of signal for when the weird gets to be too much for conventional verbal or narrative representation. In the postapocalyptic storyworld of *Dead Astronauts* reality has become so destabilized that the weird leaks through the cracks into the extradiegetic level, too, whereby it threatens the stability of the real world as well.

In the part of the novel that stands out the most in terms of visual structure, Botch has been reborn as a tiny fish (called “behemoth”) after an attack by Mord—a giant, flying bear also featured in *Borne*. The already gappy text is here limited further, to only one paragraph at the bottom of every page; the already impressionistic sentences are typographically split into poetic lines by slashes (in the original):

behemoth satisfied by the sun upon a muddy rock / watched the stitching of black damselflies over the bog / so little sound leaking from their wings / how the delicate tracery escaped / negated all behemoth would ever be / even small / . . .

the last of the green (216–17)

Through a verse-like structure and rhythm these passages express both the otherness and the beauty of Botch's nonhuman perspective. Alongside a large blank space above the passages, these moments from Botch's life are concentrated to sensory experiences to which the narrator (bordering on poetic speaker) has extremely limited access, which highlights and performs the gap between human and nonhuman ways of knowing the world. The text in this chapter is magnified by the empty space above it, remembering also the barren, toxic landscape described in other parts of *Dead Astronauts*, brimming with extinction. The last five words above are alone on the page, striking because they express nostalgic appreciation of the natural environment which is about to disappear. Thus, the metafictional experimentation intertwines with VanderMeer's environmental critique. But throughout the novel, as so often in VanderMeer's prose, there is beauty to be found amid the violence and suffering—beauty and playfulness. This connection is more noticeable in *Dead Astronauts* because of how the typographical fabric of the text is metafictionally foregrounded.

When Moss dies after her fight and merges with Botch, her corpse is hunted by a group of dimension-jumping, hive-mind foxes, who can travel across different versions of reality. The brief rendition of the foxes' delight as they track Moss's body, flitting in and out of multiple spatiotemporal dimensions to feed, is another example of what we call elliptical nonhuman focalization, but it is more explicitly meta and also more organized than the perspective of Botch:

- v. 6.6 As they gorged, one by one, they would:
- v. 6.5 Wink out:
- v. 6.4 Blink back in:
- v. 6.3 Disappear:
- v. 6.2 Reappear:
- v. 6.1 Again,
- v. 6.0 again.
- v. 5.9 Again.
- ...
- v. 5.4 Register: Delirious faux-fox surprise. Deliciousness of tiny journeys, miniature doors in the air. (108–9)

Along the margins of the pages are listed the versions ("v.") of reality to which the foxes travel to catch their prey. This version "counting" is a constant presence throughout the novel. Sometimes the version is listed at the beginning of a chapter, other times it follows characters as they journey between dimensions. But it is nowhere as playful as in the example above. The movement of the foxes is mimicked by the text on the page, culminating in two odd sentences that describe the experience of the foxes, going from external to internal focalization almost mechanically ("Register: Delirious faux-fox surprise"). The formal experimentation using ellipsis as a visual representation of the foxes' behavior functions as a defamiliarizing tool that, on the one hand, marks their reality as intensely different from the reader's. On the other hand, it shows clearly how VanderMeer allows the immersive and the meta to reinforce one another. The reader's eyes dart from version to version much like the foxes' bodies and minds. The audience is therefore involved in their travel across textual versions in a much more direct, bodily way, which does not exactly *break* the aesthetic illusion but challenges it.

These elliptical shifts in time and space pierce and pepper the pages of *Dead Astronauts* but are at their most striking where they frame or cut into the nonhuman perspectives, as outlined by the examples above. The novel's metafictional strategies recall Morton's strange feedback loop between the planetary and the individual level by letting the instability of the storyworld affect the stability of the reading experience. But the "scaled-up" weirdness of the turning of a car key is in *Dead Astronauts* approached from a different angle. Morton and VanderMeer both comment on the slippery and complex nature of the ecological discourse itself by trying "to access internal things that are very hard to put into words."<sup>37</sup> But rather than using everyday objects to explain the weirdness of a large-scale Anthropocene "hyperobject" like global warming from the outside, VanderMeer approaches it from the inside: the deeply defamiliarizing nonhuman perspectives rendered via unorthodox metafictional strategies suggest that the Anthropocene everyday is already consumed by the weird.

### Repetitive Loops

In the second-to last chapter of *Dead Astronauts*, the Blue Fox takes over and narrates from the first-person (singular and plural) perspective. The Blue Fox is another Company creation with superintelligence and shapeshifting abilities, but who escapes the Company and starts killing humans out of hatred for their structural violence against nonhumans. This part of the novel reads as something between a witness statement and an activist manifesto, with the Fox explaining in detail how he and his "great liberation army" of foxes hunt and slaughter humans as revenge (286). The story is divided into three sub-chapters, structured almost as a saga with "verses" and "refrains," where the verses tell the main story in a more conventional way and comment on characters and events known from earlier in the novel. But even the verses of the Fox's saga display a defamiliarizing nonhuman perspective which requires formal experimentation, while little drawings that resemble weirdly mutating cells divide the paragraphs.

In the first of these verses, the Fox begins his saga by criticizing the human reliance on words to understand reality: "You want. Things to be words. That are not words. Could never be words. Your fox is some other construct. We did not agree to that. We do not call ourselves foxes" (258). Nevertheless, the Fox goes on with his tale, even though, to the reader, his life "would be strange and over-silent and made of blank spaces and space for too long" (302). Linguistic, temporal, and spatial gaps are explicitly frontloaded as an important part of nonhuman experience—which harks back to the stories of Botch and Moss. Moreover, the Fox focuses on the cycle of violence in which humans and nonhumans seem to be trapped: "Such repetition for so long, the only difference in the details of the conquest, the defeat" (308). The repetitive nature of the Fox's experience is given a visual shape by the "refrains," where the cycle becomes a terrible song:

They killed us with traps. They killed us with poisons. They killed us with snares. They killed us with guns. They killed us with knives. They strangled us. They trampled us. They tore us apart with hounds. They baited steel-jawed traps. They starved us out. They burned us alive. They withheld water. They killed all out prey. . . . They bred us for fur and bludgeoned us to death. They kept us in cages so small with so many we burst apart. . . . *They killed us with traps. They killed us with poisons. They killed us with snares. . . .* (270–71; italics added)

The sequence above, from the second refrain, is repeated nine times and covers six pages, creating a rhythmic lull that interferes with the reading process. It might be tempting to skim it, and just let the eyes scan page by page because no new information is given. But there is something hypnotic about the rhythm that invites the reader to slow down and let the story loops run their course, and which makes the sudden breaking of the pattern on the fourth page of the second refrain all the more intrusive: “. . . They tore us apart with hounds. (We walk forests like you walk a room you built). They baited steel-jawed traps. . . .” (273). Similar bracketed statements appear at uneven intervals throughout the second and third refrains as a kind of commentary cast from a higher level of narration. The change of grammatical subject and verb tense suggests that the narrator of the bracketed statement is the Blue Fox stepping into the cycle of violence to add nuance to the foxes’ experience of reality. It is unclear whether the “you” refers to a character in the book, the reader, or humanity in general. Regardless, the repetitive loops give a sense of the circularity and redundancy of the human treatment of foxes and other nonhumans, while highlighting—along a metafictional route—the constructedness of the text.

Repetition is used actively throughout the novel in other ways, too, sometimes for poetic effect, or to halt the narration in a glitch-like way that marks a jump between versions of reality. At other times these loops simply reinforce the characters’ feeling of apocalyptic inevitability: “This was the part where things began to fall apart, because they were meant to fall apart, because they were meant to fall apart, because they were meant to fall apart” (72). The quotation above is jarring and out of place and, much like in the examples of Sarah and Moss in the previous two sections, it draws attention to the critical instability of the storyworld, but also, more subtly, of the world in which readers are positioned as they engage with this self-reflexive passage. Moreover, the passage signals to the reader that “this part” has happened before, and that the current version only happens to be the one in which the reader takes part. The characters perform their own fates in different versions of reality in “an endless amplified loop” (71)—which, notes Jeffrey Clapp, “strikingly resembles a player’s necessarily repeated attempt to ‘beat’ the ‘levels’ of a video game” (11).<sup>38</sup> This performativity is so important to the construction of the storyworld that it affects the formal structure of the novel as well, which is visible in the metafictional strategies discussed in this paper. Furthermore, the novel’s focus on repetition, cyclicity, and failure target violence and suffering as the inevitable results of human mismanagement of nature: it embodies the sense of being trapped in an irreversible pattern of exploitation and consumption.

VanderMeer’s ecological critique is never as explicit as in this penultimate part of the story, told by the Blue Fox, perhaps because the Fox addresses humanity both as “they” and as “you.” In a particularly striking scene, the fox explains the hypocritical relationship humans have to trees:

How they loved to be out in the trees. The tales they told about the trees and how they loved them. Perhaps because trees did not resist. Trees fell of their own accord, sometimes, as if to prove their love of the ax. The chain saw that felled most of them just completed a tree’s own inevitable thought. (285)

This is already a complicated narrative situation, as a fox—the nonhuman first-person narrator—is using free indirect discourse to satirically paraphrase the human abuse of trees. The Fox tells the story of how foxes assaulted chainsaw-owning humans with their own chainsaws “to remind them of what it really meant to be a tree” (2019, 285). The dark humor of this passage borders on absurd, even for a book as bizarre as *Dead Astronauts*. But then, the narrator turns directly to the reader, aware of the absurdity: “Do you doubt me? Do you not see the corpses strewn there in my mind’s eye? Can you not distinguish

truth from fiction? Or were you never taught the difference?” (285). These provocative questions tie the reality of the storyworld to the reader’s ethical position vis-à-vis nonhumans, creating a near-metaleptic situation that activates the reader as a character in the Fox’s story—as a representative of the human species.

The explicit address to the reader becomes near-metaleptic again when the Fox at a later point refers to “you, here, in this room, with me half dead hanging from the wall” (302). Again, this is an instance of doubly deictic “you” in Herman’s sense: the “you” might also refer to an unnamed character or narratee in the novel, but due to the high concentration of other metafictional strategies, as a reader it is difficult not to feel targeted by the Blue Fox’s address. When the Fox reveals how he was taken to the lab for experimentation, and got separated from his mate and his pups, the reader is perhaps more susceptible to his sarcastic comments about the Disney-like pathos of such a “sentimental tale. The tale you always need to care. Which shows you don’t care. Why we don’t care if you care” (305). Here, we are confronted with the assumption that conventional stories with anthropomorphized nonhuman characters and “safe” affective registers are the best way to foster care about environmental destruction. The Fox’s near-metaleptic address to the reader tries to thwart this “sentimental” attitude but seems cynical about the chances of success. Perhaps, as the novel as a whole suggests, a narrative that is at the same time (self-)critical and playful might be the best route to ecological care.

Indeed, a metafictional analysis of these scenes reinforces the novel’s ecological critique by drawing attention to the reader’s role as a human outside of the storyworld. Rather than presenting potential solutions to the problematic human-nonhuman relationship, however, VanderMeer “returns to the affective experience of failure,” much like a video game that offers infinite tries but no chance at winning.<sup>39</sup> The repetitive loops thus catch up with the story at a broader level, too, by interfering with the novel form itself: the shapeshifting typography, temporal and spatial ellipses, and other metafictional strategies can be read as part of this gamified dystopian vision of the Anthropocene where the reader becomes a hapless player just like the characters in the novel.

## Conclusion

In *Dead Astronauts*, the ecological themes at the heart of most of VanderMeer’s oeuvre achieve a level of formal complexity that embodies the many facets of Anthropocene discourse, raising questions about agency, subjectivity, and existence in a more performative and self-reflexive way than is common in weird fiction. *Dead Astronauts* enacts or dramatizes a scale collapse of one narrative level into another, using the slipperiness of the weird to reinforce the conflation of the cosmic and the everyday, of the global and the local. As Amitav Ghosh argues, climate change is

peculiarly resistant to the customary frames that literature has applied to “Nature”: they are too powerful, too grotesque, too dangerous, and too accusatory to be written about in a lyrical, or elegiac, or romantic vein. Indeed, in that these events are not entirely of Nature (whatever that might be), they confound the very idea of “Nature writing” or ecological writing: they are instances, rather, of the uncanny intimacy of our relationship with the non-human.<sup>40</sup>

VanderMeer is known for reminding his readers of this uncanny intimacy, and in *Dead Astronauts* the intimacy is pushed to new levels, refusing the reader the comforts of a plot-driven, linear story, or familiar narrative methods. *Dead Astronauts* showcases, we argue, not only the affordances of formal

experimentation for addressing the, in Ghosh's words, "powerful, grotesque, dangerous, and uncanny" Anthropocene moment, but also the affordances of the weird mode for experimenting with the literary possibilities and ecocritical potential of speculative fiction.

And perhaps it should not surprise us that the weird, a mode always drawn toward the unthinkable edges, borders, and cracks of the world should feel at home in the meta. Over the last decade, a number of markedly metafictional works have emerged from the weird tradition. The self-reflexivity of these narratives remains largely underexplored, especially from an ecocritical perspective. Yet, as we have argued here, this metafictional weird has particular resonance in an ecological context. Anthropocene crises like global warming, plastic pollution, or droughts are becoming increasingly urgent, but they remain frustratingly slippery for the imagination. Previously unthinkable or far-off catastrophes are on our doorstep, and the weirdness of that realization echoes reflections about the Anthropocene on the one hand, and metafictional experimentation on the other. This new direction of the weird contributes to expanding the mode's power to include, and explicitly target issues from, contemporary politics and culture, stepping away from the mere aestheticization of a distant cosmos full of unknowable horrors. The weird is turning inward, moving closer—but that is not to say it is shrinking.

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<sup>2</sup> See, for instance, Benjamin Robertson's comment that "the new weird exhibits a general tendency to espouse a worldview more open to and receptive of the beyond [that is, any form of otherness] than does the weird." Benjamin J. Robertson, *None of This Is Normal: The Fiction of Jeff VanderMeer* (Minneapolis: University of Minnesota Press, 2018), 29. For more on the distinctiveness of the New Weird, see Gry Ulstein, "Brave New Weird: Anthropocene Monsters in Jeff VanderMeer's 'The Southern Reach,'" *Concentric: Literary and Cultural Studies* 43, no. 1 (2017): 71–96.

<sup>3</sup> Roger Luckhurst, "The Weird: A Dis/Orientation," *Textual Practice* 31, no. 6 (2017): 1041–61; Robertson, *None of This Is Normal*.

<sup>4</sup> Luckhurst, "The Weird," 1056.

<sup>5</sup> Luckhurst, 1053.

<sup>6</sup> We use the term "storyworld" in David Herman's sense of a mental model that readers use to understand narrative. See David Herman, *Story Logic: Problems and Possibilities of Narrative* (Lincoln: University of Nebraska Press, 2002), 5. For a recent discussion of the "text and world" metaphor, see the collection edited by Alice Bell and Marie-Laure Ryan, eds., *Possible Worlds Theory and Contemporary Narratology* (Lincoln: University of Nebraska Press, 2019).

<sup>7</sup> On metafiction, see important work published in the 1980s: Linda Hutcheon, *Narcissistic Narrative: The Metafictional Paradox* (Waterloo, ON: Wilfrid Laurier University Press, 1980); Patricia Waugh, *Metafiction: The Theory and Practice of Self-Conscious Fiction* (London and New York: Routledge, 1984).

<sup>8</sup> Gérard Genette, *Narrative Discourse: An Essay in Method*, trans. J. E. Lewin (Ithaca and London: Cornell University Press, 1980), 235.

<sup>9</sup> For a discussion of metalepsis in postmodernist fiction, see Brian McHale, *Postmodernist Fiction* (London and New York: Routledge, 1987), 8. We also refer to *When Storyworlds Collide*, by Jeff Thoss, for a synthesis of three decades of narratological approaches to metalepsis after Genette. Jeff Thoss, *When Storyworlds Collide: Metalepsis in Popular Fiction* (Leiden: Brill, 2015).

<sup>10</sup> Jon Hegglund, "Unnatural Narratology and Weird Realism in Jeff VanderMeer's *Annihilation*," in *Environment and Narrative: New Directions in Econarratology*, ed. Erin James and Eric Morel (Columbus: Ohio State University Press, 2020), 33.

<sup>11</sup> Ann VanderMeer and Jeff VanderMeer, eds., *The New Weird* (San Francisco: Tachyon Publications, 2007), xvii.

<sup>12</sup> Werner Wolf, "Aesthetic Illusion as an Effect of Fiction," *Style* 38, no. 3 (2004): 325.

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- <sup>13</sup> See Marie-Laure Ryan's influential treatment of immersion in fiction in *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media* (Baltimore and London: Johns Hopkins University Press, 2001).
- <sup>14</sup> Richard Walsh's account of fictionality centers on this idea of real-world relevance, which Walsh sees as an essential component of narrative meaning-making. Walsh also opposes the "text as world" metaphor because it tends to reify the ontological separation between fiction and everyday reality. See Richard Walsh, *The Rhetoric of Fictionality: Narrative Theory and the Idea of Fiction* (Columbus: Ohio State University Press, 2007).
- <sup>15</sup> Marco Caracciolo, "Cognitive Literary Studies and the Status of Interpretation: An Attempt at Conceptual Mapping," *New Literary History* 47, no. 3 (2016): 187–208.
- <sup>16</sup> Erin James, *The Storyworld Accord: Econarratology and Postcolonial Narratives* (Lincoln: University of Nebraska Press, 2015), 39.
- <sup>17</sup> Lawrence Buell, *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture* (Cambridge, MA: Harvard University Press, 1995).
- <sup>18</sup> See also James's comment on "the power of literary narratives to create worlds in which readers immerse themselves—an immersive power that has the ability to transport readers to new environmental experiences and potentially influence the way those readers view the world." James, *The Storyworld Accord*, 33; emphasis added.
- <sup>19</sup> Merja Polvinen, "Enactive Perception and Fictional Worlds," in *The Cognitive Humanities: Embodied Mind in Literature and Culture*, ed. Peter Garratt (London: Palgrave Macmillan, 2016), 19–34.
- <sup>20</sup> James, *The Storyworld Accord*, 39.
- <sup>21</sup> For more on the inherent complexity of the ecological crisis and how it calls for equally complex narrative strategies, see Marco Caracciolo, *Narrating the Mesh: Form and Story in the Anthropocene* (Charlottesville: University of Virginia Press, 2021).
- <sup>22</sup> Defamiliarization is not the only effect of metalepsis, though. For further discussion, see Alice Bell and Jan Alber, "Ontological Metalepsis and Unnatural Narratology," *Journal of Narrative Theory* 42, no. 2 (2012): 166–92.
- <sup>23</sup> McHale, *Postmodernist Fiction*, 119–21.
- <sup>24</sup> Douglas R. Hofstadter, *Gödel, Escher, Bach: An Eternal Golden Braid* (New York: Basic Books, 1999), 686. Interestingly, the same term ("wrongness") surfaces in Mark Fisher's influential definition of the weird: "the weird is a particular kind of perturbation. It involves a sensation of *wrongness*: a weird entity or object is so strange that it makes us feel that it should not exist, or at least it should not exist here." Mark Fisher, *The Weird and the Eerie* (London: Repeater, 2016), 15.
- <sup>25</sup> Timothy Morton, *Dark Ecology: For a Logic of Future Coexistence* (New York: Columbia University Press, 2016), 7–8. The term Anthropocene was introduced by two scientists, Paul Crutzen and Eugene Stoermer, in "The Anthropocene," *Global Change Newsletter* 41 (2000): 17–18. For a critical discussion of the concept's reception in the humanities, see Eileen Crist, "On the Poverty of Our Nomenclature," *Environmental Humanities* 3, no. 1 (2013): 129–47.
- <sup>26</sup> Dipesh Chakrabarty, "Climate and Capital: On Conjoined Histories," *Critical Inquiry* 41, no. 1 (2014): 1–23; Bruno Latour, "Agency at the Time of the Anthropocene," *New Literary History* 45, no. 1 (2014): 1–18.
- <sup>27</sup> Morton, *Dark Ecology*, 8.
- <sup>28</sup> Derek Woods, "Scale Critique for the Anthropocene," *Minnesota Review* 83 (2014): 133–42.
- <sup>29</sup> For a more sustained discussion of that feedback loop in light of complexity science, see Caracciolo, *Narrating the Mesh*, chap. 1.
- <sup>30</sup> Luckhurst, "The Weird"; Robertson, *None of This Is Normal*.
- <sup>31</sup> Jeff VanderMeer, *Dead Astronauts* (New York: Farrar, Straus and Giroux, 2019), 33. From now on we will cite VanderMeer's work parenthetically in the body of the article.
- <sup>32</sup> Although we won't be able to pursue this connection in this article, *Dead Astronauts* also marks a return to the metaleptic style of VanderMeer's early works, particularly *City of Saints and Madmen* (2001).
- <sup>33</sup> For more on the definition of climate change fiction, see Antonia Mehnert, *Climate Change Fictions: Representations of Global Warming in American Literature* (Basingstoke, UK: Palgrave Macmillan, 2016).
- <sup>34</sup> Herman, *Story Logic*, 352.
- <sup>35</sup> On how textual gaps can be used to evoke conscious experience in narrative, see also Marco Caracciolo and Cécile Guédon, "Child Minds Through Gaps and Metaphor," in *Subjectivity across Media: Interdisciplinary and Transmedial Perspectives*, ed. Maïke Sarah Reinerth and Jan-Noël Thon (New York: Routledge, 2016), 45–58.
- <sup>36</sup> Jeff VanderMeer and Ann VanderMeer, eds., *The Weird: A Compendium of Strange and Dark Stories* (London: Chorus, 2011), xv.

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<sup>37</sup> Andrew Hageman, "A Conversation between Timothy Morton and Jeff VanderMeer," *Paradoxa* 31 (2016): 42.

<sup>38</sup> Jeffrey Clapp makes the same observation about the game-like framing of *Dead Astronauts*, but rather than tie it to metafictional performativity of human-nonhuman entanglement, he reads it as a problematic, "world-weary" commentary on contemporary (Western) society's entrapment in power structures and surveillance culture, see Jeffrey Clapp, "Jeff VanderMeer, or the Novel Trapped in the Open World," *Critique: Studies in Contemporary Fiction*, 2020, 12, <https://www.tandfonline.com/doi/abs/10.1080/00111619.2020.1816890>.

<sup>39</sup> Clapp, 11.

<sup>40</sup> Amitav Ghosh, *The Hungry Tide* (New York: HarperCollins, 2004), 32–33.