Reading Literature in the Anthropocene:
Ecosophy and the Ecologically-Oriented Ethics of Jeff Noon's
_Nymphomation_ and _Pollen_

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Abstract

This thesis examines the science fiction novels *Nymphomation* and *Pollen* by Jeff Noon. The reading brings together ideas from the eco-sciences, environmental humanities and ecocriticism in order to analyse the ecological dimensions of these texts. Although Noon's work has been the subject of academic critique, critical discussions of his oeuvre have overlooked the engagement of *Nymphomation* and *Pollen* with ecological issues. This is a gap in the scholarship on Noon's work that this thesis seeks to rectify. These novels depict landscapes and communities as being degraded because of the influence of information technologies and homogeneous ideologies, making them a productive lens through which to consider and critically respond to some of the environmental and social challenges faced by humanity in an anthropogenic climate.

In order to discuss the ecological dimensions of these novels, the thesis advances the notion of an "ecosophical reading practice." This idea draws on Felix Guattari's concept of "ecosophy," and combines it with the notions of "ecological thinking" developed in the work of theorists Timothy Morton, Lorraine Code and Gregory Bateson. While Morton's work is extensively cited in ecocritical scholarship, with a few exceptions, the work of the other theorists is not. This thesis thus seeks to demonstrate how these theorists' ideas are also valuable for exploring ecocritical concerns, thereby contributing to the range of theoretical scholarship from which ecocriticism draws.

The thesis is divided into four main sections. The Introduction begins by discussing the socio-economic and literary contexts in which *Nymphomation* and *Pollen* were produced, and then outlines the notions of "ecological thinking" and an "ecosophical reading practice." Chapters One and Two are devoted to examining *Nymphomation* and *Pollen* respectively, and show how "ecological thinking" is at work in these novels through a close reading of their ecological dimensions, which, in turn, demonstrates an "ecosophical reading practice." Chapter One examines *Nymphomation*’s representation of virtual reality and mass media technologies, as well as post-industrial capitalism and neoliberalism. It analyses how the novel portrays these phenomena as contributing to environmental degradation and restoration, as well as the welfare of the nonhuman other. Chapter Two considers the role of *Pollen*’s epigraph and prologues in framing its eco-project, before interpreting the significance of its representation of stories, virtual reality, technological efficiency, maps and myths for its plotline of eco-catastrophe and eco-restoration. Both Chapters One and Two are
divided into four subsections, each centring upon a specific textual element. The conclusion, through its examination of a game called *Ingress*, illustrates how “ecological thinking” and an “ecosophical reading practice” can be effectively applied to other narrative-based cultural forms in order to consider their potential to produce ecologically-oriented understandings.

The importance of this research lies in its detailed analysis of *Nymphomation* and *Pollen*, and its theorisation and demonstration of “ecological thinking” and an “ecosophical reading practice.” These two interrelated strands of the thesis represent original contributions to the existing bodies of scholarship both on Noon’s work and ecocriticism.
Declaration

This thesis contains only sole-authored work, some of which has been published and/or prepared for publication under sole authorship. The bibliographical details of the work and where it appears in the thesis are outlined below.

Nicoletti, Emma. "Reality Hacking – A Reality Check: Ecological Advocacy in Jeff Noon's *Nymphomation.*"

This article has been accepted for publication in the forthcoming collection: *Emergent Environments: New Critical and Creative Directions in Ecology and the Humanities*, eds. Lucy Burnett, Deborah Lilley, Catherine Parry, Sam Solnick. Arguments and ideas that appear in this article have been included in Chapter One, Section Two “Blurbflies” (under the subheadings “Consumerism” and “Capitalist Subjectivity”), and Section Three “Yawndale Monstermarket and Dream to Win” (under the subheadings “Dream to Win and Culture Jamming” and “Ecosophic Object”).


Arguments and ideas that appear in this article have been included in Chapter Two, Section Two “Flower Map and Dodo Beetle,” and Section Four “Maps and Myths.”
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Introduction

"For several miles before they reached Milton, [Margaret Hale and her family] saw a deep lead-coloured cloud hanging over the horizon in the direction in which it lay."¹ As for the source of this foreboding cloud: cotton mills. "Here and there a great oblong many-windowed factory stood up, like a hen among her chickens, puffing out black 'unparliamentary' smoke, and sufficiently accounting of the cloud which Margaret had taken to foretell rain."² Milton and Margaret are fictional elements of Gaskell's 1855 novel *North and South*. Nonetheless, the polluted atmosphere that dominates Gaskell's construction of Milton unmistakably evokes the historical city of Manchester during the industrial revolution, where Gaskell lived for many years.³ Indeed, the leading role Manchester played in England's industrial expansion meant that "[b]y the 1880s Manchester had acquired an unenviable reputation for dirt, smoke and gloom."⁴ Also, if Alexis de Tocqueville's 1835 impression of Manchester is any indication, there was little question over the direct connection between capitalist ideology and the city's dismal environmental and social situation:

[from this foul drain, the greatest stream of human industry flows out to fertilise the whole world. From this filthy sewer pure gold flows. Here humanity attains its most complete development and its most brutish, here civilisation works its miracles and civilised man is turned almost into a savage.⁵]

In other words, for de Tocqueville, capitalism as he saw it realised in industrial Manchester drove and legitimated environmental despoliation and social inequality.

The two science fiction novels that are the focus of this thesis, Jeff Noon's *Pollen*⁶ and *Nymphomation*,⁷ are also set in Manchester; and like Gaskell's Milton, they feature skies filled with pollution. However, the particulate matter that constitutes the pollution in Gaskell's and Noon's respective versions of Manchester is decidedly different. Gaskell's air is polluted with the by-product of nineteenth century industry—

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² Ibid.
the filthy smoke of burnt coal. Noon’s air, on the other hand, is polluted with the product of late-twentieth century post-industrial society—information. In *Pollen* the information pollutant is packaged in mutant pollen spores that are encoded with a human-Vurt hybrid DNA (Vurt is the name of the novel’s version of virtual reality). As the story progresses, the pollen count soars. And as this pollen-pollutant increasingly “impregnates” the city’s organic matter—making it more v(i/u)rtal than material in the process—the environment becomes increasingly uninhabitable. In *Nymphomation* the information pollutant is packaged in insect-shaped, semi-autonomous flying advertisements called blurbflies that aggressively and incessantly promote the city-wide lottery. The blurbflies mate and multiply, and as their population explodes, Manchester’s air becomes thick with a “corporate fog of brand images”;

the Mancunians become unable to resist their message of consumerism; and the environment becomes degraded. As these two very brief précis suggest, despite the virtuality and immateriality of information, my reading of *Pollen* and *Nymphomation* highlights how their fictional representations of Manchester make the material effects of the “information age” on the environment as visible as the “unparliamentary’ smoke” of the industrial age.

Jeff Noon’s early fiction, amongst which *Nymphomation* and *Pollen* are counted, “powerfully claimed [Manchester] as its own.”

Noon liberally includes in his early prose streets and landmarks that actually exist in Manchester, and so invites readers to make associations between the fictional Manchester of his stories and the historical Manchester of reality. As my opening remarks suggest, an association animating my reading of *Nymphomation* and *Pollen* is Manchester’s status as a symbol of environmental damage caused by capitalist industry. While this “lead-coloured cloud” no longer hangs over the real, contemporary Manchester, it does possess a shadowy afterlife that manifests in readers’ minds, especially readers such as myself who are geographically removed from the actual Manchester and who have come to know about it through its historical record and literary life. A central focus of this thesis arises out of the intertextual associations between the historical Manchester and

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8 Ibid., 240.
Noon’s fictional version: namely, this thesis’ analysis of Nymphomation's and Pollen’s ecological dimensions.

Section One: The Ecological Dimensions of Nymphomation and Pollen

The Current Salience of Ecological Discourse

At this current socio-historical moment, environmental discourses are becoming increasingly prevalent in the public arena: from the marketing of “eco-friendly” products to political discussions about environmental disaster mitigation policies to scientific predictions of future climates to the production of environmentally-themed Hollywood films. Gaskell’s representation of Milton and de Tocqueville’s description of Manchester in the 1800s demonstrate that an understanding of the relationship between human industry and environmental degradation is not new knowledge. However, whereas in the 1800s de Tocqueville argued that humanity had the luxury of making reparable mistakes, in the early-twentieth century humanity finds itself confronted with an environment irreversibly altered by human industry. This environmental situation has been labelled the “anthropocene.” The etymology of this term, popularised by scientist Paul Crutzen in 2000, derives from the Greek root words anthropos and ceno, meaning “human” and “new” respectively, and it describes the environmental effects caused by human-kind: “mass extinctions of plant and animal species, polluti[on of] the oceans and alter[ation of] the atmosphere, among other lasting impacts.” As climate scientist Will Steffen notes, the term is “another strong reminder to the general public that we are now having undeniable impacts on the environment at the scale of the planet as a whole, so much so that a new geological epoch has begun.” In spite of the ubiquity of such “reminders,” they seem to be having limited impact in altering the current industrial and consumerist status quo. This is despite the urgency conveyed by scientific findings that not only confirm the irreparability of human industrial “mistakes,” but

13 Will Steffen qtd. in ibid.
14 For example, see Margaret Wente’s dismissal of environmentalist David Suzuki’s argument that the environmental movement from its inception “should have argued that we must abandon the quest for economic growth ... [in order to be] environmentally responsib[le],” “The Agony of David Suzuki,” The Globe and Mail, 14 April 2012, sec. Opinion, http://www.theglobeandmail.com/globe-debate/the-agony-of-david-suzuki/article4100247/.
also predict that these “mistakes” will cause intensified future hardship for all organic species alike (human, plant and animal), if current values and practices are not hastily modified. I highlight these aspects of current environmental and cultural conditions because the prevalence of environmental discourses in the public arena is another reason why this thesis focuses on the ecological dimension of *Nymphomation* and *Pollen*. These discourses, through their increasing ubiquity, have come to latently occupy my thoughts and manifest themselves in my engagement with literary texts.

Importantly, because of my inclination to focus upon the ecological dimension of the novels, I also encounter an emphasis on the environment in my scholarly engagements. Lawrence Buell, a literary scholar whose work is interested in “environmental literature,” refers to the relatively recent appearance of the environment in literary and cultural studies as an “environmental turn” and credits its appearance to “‘the environment’ ... becoming an increasingly salient public concern and a major topic of research in science, economics, law, and public policy—and certain humanities fields as well, notably history and ethics.”

This turn has produced a body of environmentally-oriented literary and cultural studies scholarship commonly referred to as ecocriticism. This thesis is in conversation with ecocritical scholarship, which has helped to further strengthen and illuminate my understanding of the ecological dimensions of Noon’s novels.

In consonance with an ecocritical “approach,” this thesis focuses upon representations of the nonhuman in Noon’s literary worlds, where the category of the nonhuman includes both organic nonhumans (for example, animals and plants) and non-organic nonhumans (for example, built, domesticated and wild landscapes, and physical objects). However, following Katrina Dodson’s succinct (albeit reductive) summary of ecocriticism’s “camps,” this thesis aligns with the critical theory ecocritical approach, rather than the traditional:

[t]raditional ecocriticism says we should come to read and appreciate nature firsthand by rushing out into a rainstorm or learning to identify all the wildflowers in a meadow. We should gain empirical understanding alongside aesthetic pleasure from environmental texts (e.g., reading the work of Thoreau, John Muir, or John Clare as field guides) and borrow observations and methods from the biological and environmental sciences. The critical theory approach takes a more critical view, as it were, one that gains perspective by


defamiliarizing social constructions of "Nature" and the "natural" that are deeply intertwined with anthropocentric values of normativity and inherent good. Neither camp negates pleasure, but they find it through different means.17

In line with a critical theory approach, my readings of *Nymphomation* and *Pollen* interrogate the relations between the human and nonhuman in these novels. I consider the ways their complex, textually-rendered relations challenge and/or reinforce dominant notions about human identity and ecological interconnectedness.

I also highlight the influence of current environmental and cultural conditions to account for my decision to focus upon the ecological dimension of Noon’s novels—*Nymphomation* and *Pollen* in particular—in the first place. Despite, as I argue in this thesis, the prevalence of pollution, waste, and toxic and despoiled landscapes in Noon’s novels, their ecological dimension has been overlooked in the existing academic scholarship, an overview of which I provide below. What I am suggesting here is that, while pollution, waste and toxic and despoiled landscapes have always been aspects of Noon’s texts, their poignancy and significance has become salient and invites academic interrogation in a socio-physical context in which the environment is "big news." Therefore, this thesis addresses a gap in the scholarship on Noon’s novels by investigating their ecological dimension through the lens of ecologically-oriented philosophy and critical theory.

Before providing an overview of the existing scholarship on Noon’s work, I will briefly outline his creative oeuvre. Noon began his literary career as a playwright, but rose to prominence following the publication of his debut novel *Vurt* (1993), which won the prestigious Author C. Clarke Award in 1994.18 Following *Vurt*, Noon wrote the novels *Pollen* (1995), *Automated Alice* (1996),19 and *Nymphomation* (1997), and a collection of short stories, *Pixel Juice* (1998).20 These texts are all set in a universe where Vurt technology exists (an aspect of Noon’s series that is significant for the ecologically-oriented reading I will present in this thesis, which will be discussed in detail in Section Three of this Introduction). Additionally, these texts all, firstly, represent "Noon's stylistically masterful ... slipstream fiction [that] reads like an explosive hybrid of Lewis Carroll, William Gibson, Elizabeth Smart, and a Warp Records

18 Keen, “Feathers Into an Underworld,” 97.
release,” and secondly, engage with the concepts and themes of ontological uncertainty, chaos theory, posthuman identities, racial and social inequality, institutional power and corruption, and youth, drug and cyber culture. Noon has subsequently published three more novels, *Needle in the Groove* (2000) and *Channel Sk1n* (2013), which include some of the characters and preoccupations of the earlier Vurt series, and *Falling Out of Cars* (2002), which does not directly engage with any of the textual elements of the Vurt series, but nonetheless explores the concept of ontological uncertainty. Finally, Noon has produced several works of experimental fiction, the book *Cobralingus* (2001), the hypertext fictions *Mappalujo* (2002, co-written with Steve Beard) and *217 Babel Street* (2008, co-written with Susanna Jones, Alison MacLeod, and William Shaw), and the micro fiction series *Sparkletown*.

Stylistically and thematically, Noon’s Vurt series and subsequent literary output represent works that are complex and dense. On the one hand, this provides academically-inclined readers with a fascinating, stimulating, and excessive array of ideas to unpack and analyse; and on the other, it necessitates that such readers be selective in their analyses. To this end, while this thesis will at points incidentally refer to some of Noon’s other works, I have elected to focus primarily upon *Nymphomation* and *Pollen* because they most directly offer overt representations of interconnections between discourse, technology and environmental degradation in their fictional worlds, and provide ample textual examples to develop my arguments. Furthermore, because Noon’s novels have multiple, intertwined and convoluted plotlines, by focusing on only these two novels, I will be able to give due attention to interpreting and analysing the ecological dimension of Noon’s work, and avoid devoting too much space to providing plot summaries. Nonetheless, much of Noon’s output is amenable to the ecologically-oriented reading practice I outline in this thesis; therefore, a more holistic analysis of his works from this perspective would be a good basis for future research and a logical extension of the research I will present here.

While Noon’s novels have not hitherto received extensive academic treatment, other literary scholars have explored his works from the perspectives of genre, politics (socio-economic and identity), and stylistic invention. The studies of Andrew Butler,

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21 Andrew Wenaus, “Spells Out the Word of Itself, and then Dispelling Itself”: The Chaotics of Memory and the Ghost of the Novel in Jeff Noon’s *Falling Out of Cars,* *Journal of the Fantastic in the Arts* 23, no.2 (Spring 2012): 260.
23 *Channel Sk1n* (Jeff Noon, 2012).
26 *Mappalujo* and *217 Babel Street* were published online only and are no longer available for viewing.
27 *Sparkletown* is available through dedicated Twitter and Tumblr feeds that can be accessed on Noon’s official website Metamorphiction: http://www.metamorphiction.com/
Tony Keen and Nikkianne Moody focus upon the relationship between Noon's Vurt series and the genre of science fiction. Butler argues that, while Noon's Vurt series is publicised as being “cyberpunk,” a subgenre of science fiction featuring virtual reality technology, key elements of its version of virtual reality and its literary indebtedness to Greek myth render his novels “cyberpunk-flavoured” rather than “properly” cyberpunk. The characteristics of cyberpunk and the ways that Noon's novels depart from them are significant for the ecologically-oriented interests of this thesis, and will be discussed in detail in Section Three of this Introduction. Keen’s analysis similarly examines Noon’s literary influences arguing that his motifs and themes draw more directly from British fantasy (particularly Lewis Carroll and C. S. Lewis) than science fiction. Moody's analysis is also interested in literary genealogy, focusing upon the differences between North American and British versions of cyberpunk—she takes Noon’s Vurt series as exemplary of the latter. Moody argues that British cyberpunk emerged from the Chemical Generation Group (which included authors such as Irvine Walsh), and therefore shares an affinity with a youth drug culture born out of housing estates, unemployment, social disenfranchisement and the erosion of the welfare state.

Val Gough offers a feminist reading of the identity politics at work in Noon's Vurt series. She argues that, while their representations of posthumanism “mount an ethical critique” of a “masculine form of transcendence” that typically attends the technophilia found in cyberpunk fiction, Noon’s novels nonetheless fail to fully challenge the patriarchal order by adhering exclusively to the “heterosexual matrix.” Andrew Wenaus and Adam Lowe offer detailed textual analyses of the stylistic and formal innovations of Noon’s Vurt and Falling Out of Cars. Wenaus’ examination of Vurt focuses upon the influence of chaos theory and fractal mathematics on the novel’s multiple layers of reality, and his study of Falling Out of Cars considers how Noon’s technique of “remix” plays out in the novel’s form and through its theme of loss. Lowe explores these two novels in the same article, analysing the connections between Noon’s postmodern style, Zen philosophy and textual coherence. Each of these critiques provides a useful lens through which to view and understand Noon’s work and so will be utilised in the analysis that follows. However, as this brief overview

28 “Journeys Beyond Being,” 65-78.
32 Ibid., 117, 112, 126.
34 “Spells Out the Word of Itself,” 260-283.
demonstrates, not one focuses upon how the nonhuman figures in Noon’s work, nor upon how the novels represent the relation between the human and nonhuman. This thesis fills this gap in the existing scholarship on Noon’s work.

**Studying Literature in the Anthropocene**

Given the urgency of attending to material environments to help steer humanity and other species away from peril, it seems pertinent to ask: “why study literature in the age of the anthropocene at all, when it would seem far more useful to attend to the physical environment directly, rather than its literary representations?” Such a question implies that the study of literature, and literature itself, is of little “use” or even is “useless.” According to Terry Eagleton, this is a belief that has shaped popular understandings of literature since the nineteenth century, when it was elevated to the rank of aesthetic object: “[t]he whole point of ‘creative’ writing was that it was gloriously useless, an ‘end in itself’ loftily removed from any sordid social purpose.” While I do not wish to suggest that the value of literature lies in its “use to society,” I do reject its being comprehensively categorised (and often dismissed) as “useless.” Rather, in keeping with much more recent critical theory (and ecocritical theory), I understand literature—and language more generally—as intimately involved in mediating and informing the ways humans engage with each other and with the physical environments in which they exist. Language is integral to making humans’ experience of the world comprehensible and communicable. It establishes and articulates culturally understood connections and differences between objects, concepts and actions. In doing so, language shapes the way humans come to know the world and their place in it by emphasising some connections and differences more than others. In other words, language is less like a mirror that perfectly and neutrally reflects the world, and instead is more analogous to a thick piece of human-made glass that refracts the world at odd angles on its way through.

Literature, as a textual medium that uses language to construct fictional scenarios, is therefore necessarily involved in the ways readers interact with their physical environments (whether or not they are critically aware of the text’s influence). In a novel—the particular form of literature that is addressed in this thesis—language is precisely and deliberately selected and arranged to construct particular fictional realities. That is, novels exploit the inherent biases of language to create fictional versions of reality (regardless of whether or not the creator does so with critical

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intention). Given the relative freedom of the imaginary world of the novel, in the text-based realities of fiction, connections that are latent or difficult to perceive in reality can be foregrounded, and alternative social, economic, and physical realities can be represented. Darko Suvin argues that science fiction—the particular genre of literature that is addressed in this thesis—not only portrays alternative social, economic and physical conditions, but does so in a way that encourages readers to compare and assess their own lived reality against the imaginary reality of the text, a process he calls “cognitive estrangement.” For Suvin, science fiction is a literary genre that lays bare the ways language is involved in the project of making worlds meaningful, while also calling into question the prevailing discourses that mediate readers’ relation to the world in which they exist.

I read Noon’s *Nymphomation* and *Pollen* as literary spaces—worlds built with words—that offer a productive focal point through which to represent and critically respond to an anthropogenic environment. In my close reading of these novels, I argue that they emphasise discourse as a central force shaping and creating material environments that are uninhabitable (in particular, the discourses of post-industrial capitalism and technological efficiency). I use the term “discourse” in the poststructuralist and semiotic sense as a term denoting the social process through which systems of language make and reproduce meanings that differentially empower some institutions, individuals and ideas, and marginalise others. Such an understanding of discourse points to the ways systems of language mediate how humans relate to their socio-physical environments, by legitimating and naturalising discursive constructions that reinforce the status quo, and obscuring or invalidating alternative discourses.

Furthermore, I wish to draw a distinction between reality as mediated by discourse and reality as constructed in discourse. I use the former to subtly reinforce the notion that language and discourse are intermediaries between humans as communicators and a physical reality that actually exists (whether or not humans are around to represent it in language), whereas the latter, as Wendy Wheeler and Hugh Dunkerly note, has been used to argue that “humans have no access to a real world because reality is (only) constructed in language.” According to Wheeler and Dunkerly, the notion that reality is constructed in language is a peculiar neoliberal interpretation of poststructural and postmodern “continental theory” that lacks

subtlety, but which has been widely advanced. A central problem with this interpretation is that it fails to account for physical reality and the limits it places upon discursive reality. Taking reality to be constructed in discourse makes this understanding of reality as available for socially and environmentally conservative purposes as it is for progressive ones: “[these] translations [of continental theory] were actually supportive of the idea that—reality being made only in language—endless growth is possible because there is no reality of finite resources, [which runs] directly counter to ecological arguments.” Therefore, I use a poststructuralist notion of discourse in a qualified manner—as mediating the relation between humans and reality—to point to the cultural work and concrete effects that language and discourse exert over societies and environments that I take as actually having a physical existence.

In my reading of *Nymphomation* and *Pollen*, I also argue that the novels present solutions to the environmental problems they depict. However, rather than requiring technical or policy changes, *Nymphomation*’s and *Pollen*’s literary representations imagine broad-sweeping discursive changes, underpinned by the radical re-conceptualisation of the ontological status of what it is and means to be human, as the cultural key to mitigating anthropogenic environmental problems. The novels construct these ontological and discursive reconfigurations as modifying the characters’ relation to their physical environment, which in turn modifies the condition of the physical environment itself. Additionally, I read these novels as also foregrounding the

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40 For an example of an interpretation of poststructural and postmodern theory from an ecological perspective that does not lack subtlety see, Verna Andermmat Conley’s *Ecopolitics: The Environment in Poststructuralist Thought*. Conley’s analysis shows how an emphasis on “signs do not cause the world to disappear, but they do inflect and shape it. Even for the most ethereal of structural thinkers, the physical world never completely vanishes. To the contrary, it is seen to persist even to win, over the abstraction of language irrespective of technology.” *Ecopolitics: The Environment in Poststructuralist Thought* (London: Routledge, 1997), 28.


ways physical reality places limits upon discursive constructions of reality, which suggests that in *Nymphomation* and *Pollen* the physical environment is not constructed as a passive object upon which human characters and their discourses operate. In the fictional worlds of these novels, discursive and physical realities are mutually constitutive.

A step back from the novel’s fictional worlds reveals that this relation of mutual constitution between discourse and environment points to how the novels themselves are similarly involved in such processes. The imaginative literary spaces that the novels construct contribute to the textual mediations that inform how readers interpret and engage with their own physical and discursive environments. Novels are not inert cultural artefacts, but rather are a prism through which discursive knowledge is transmitted and alternative discursive organisations can be formulated. Moreover, the critical study of the discursive knowledge contained in novels can bring difficult-to-perceive connections into clear relief and can propose creative responses to real social and environmental problems. Therefore, the close reading of *Nymphomation* and *Pollen* offered in this thesis demonstrates that studying literature in the anthropocene is indeed “useful.” The defamiliarised, estranged and alternative worlds of literary constructions point to language as involved in shaping how humans relate to the environment, and also provide a lens through which to consider how these relations could be different, and perhaps even better.

**Section Two: Refractions of Manchester**

In *Metamorphoses*, Suvin’s seminal study of science fiction, he neatly describes the relation between a creative work of literature, especially a work of

44 Following much scholarly work on science fiction, in my analysis of *Nymphomation* and *Pollen*, I will primarily draw upon Suvin’s influential notion of science fiction as the literature of cognitive estrangement, which will be introduced in the main text presently. This concept is conducive for considering how science fiction can effectively engage with ecological issues, as ecocritic Patrick D. Murphy demonstrates when he deploys it to connect the genres of science fiction and nature writing: SF [science fiction] stories that emphasise analogy between imagined worlds and the reader’s consensual world encourage ... people to think both about the present and about this world in which they live. ... The encouragement of that type of critical thinking provides a linkage between SF and nature-oriented literature. Rather than providing the alibi of a fantasy — in the sense of an escape from real world problems — extrapolation emphasises that the present and the future are interconnected. ... [Science fiction] can be nature-oriented literature, in the sense of its being an aesthetic text that, on the one hand, directs reader attention toward the natural world and, on the other hand, makes specific environmental issues part of the plots and themes of various works. *Ecocritical Explorations in Literary and Cultural Studies: Fences, Boundaries, and Fields* (Lanham: Lexington Books, 2009), 89–90.
science fiction, and its author’s and readers’ environment as “not only a reflecting of but also on reality.” Literature acts as an “anamorphic distortion” or “version” of reality, akin to what I earlier referred to as language’s propensity to refract reality. Suvin argues that literature’s potential to engage readers’ political awareness lies in its capacity to refract, rather than neutrally mirror, the author’s and readers’ “norm of reality,” and he uses the notion of a “feedback oscillation” to articulate how literary refractions can prompt readers to re-evaluate their lived reality. A feedback oscillation, or loop, describes a cause-and-effect cycle in which elements in a (semi-) closed system impact upon and change each other through their interactions; as the name suggests, in a feedback loop, these changes are fed back into the system, producing further changes to the system and its elements. The components of Suvin’s feedback loop are reader, author, textual reality and physical reality. Suvin argues that authors create fictional worlds and that readers comprehend these fictional worlds against a socio-economic reality they perceive as “normal.” That is, fictional realities are anchored in and understood through the author’s and reader’s naturalised perceptions of reality. Because literature refracts reality, and because fictional worlds are understood through (the reader’s experience of) the real world, the differences between the fictional world and the real world can prompt readers to “see [their norms of reality] afresh from the new perspective gained [from the novel].”

Suvin argues in *Metamorphoses* that science fiction is especially well-suited to prompting readers to re-evaluate their (social) reality because it sets up conceivable “what-if” scenarios by juxtaposing currently non-existent technologies with universes that otherwise do not violate the laws of physics. Therefore, unlike fantasy texts, which include magical elements that are impossible in reality, or “naturalistic” texts, which elide differences between fiction and reality, science fiction texts can be “simultaneously perceived as not impossible,” but also obviously different from the

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In this thesis, however, I will not pursue Suvin’s interest in locating the borders that define the science fiction genre. Rather, as will become apparent below, I will apply the notion of cognitive estrangement to literature more generally. Indeed, as Keen argues, the relationship between Noon’s fiction and science fiction is quite complicated; he suggests that Noon’s Vurt series is more closely allied to the British literary tradition (in particular, Shakespeare, Lewis Carroll and C.S. Lewis) than science fiction and cyberpunk (the subgenre of science fiction Noon’s work is often assigned to). “Feathers Into an Underworld,” 101–3. I will, therefore, selectively employ aspects of Suvin’s theory because it helpfully frames *Nymphomation’s* and *Pollen’s* ecological dimensions. For a recent alternative definition of the science fiction genre, based upon the work of Raymond Williams’ cultural materialism and Pierre Bourdieu’s sociology of culture (rather than formalism and structuralism, as is Suvin’s theory) see Andrew Milner, *Locating Science Fiction* (Liverpool: Liverpool University Press, 2012).  

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46 Ibid., 78.  
47 Ibid., 71.  
48 Ibid.  
49 Ibid.  
50 Ibid., viii.
Nonetheless, Suvin concedes that the feedback oscillation he describes “is no doubt a consequence of every poetic, dramatic, scientific, in brief semantic novum [fictional reality].”\textsuperscript{52} To summarise: in Suvin's author-text-reader-reality feedback system, the author’s and readers’ historical realities are central to the “work” fiction does: reality provides an important framework through which the text can be understood at a basic level and also through which it can be understood at a critical level—the fictional work’s distortion of the author’s and reader’s lived realities point to alternative socio-political possibilities.

\textbf{Industrialisation}

In the context of Suvin’s ideas regarding the author-text-read-reality feedback system, I will now offer a more detailed discussion of the ways the historical Manchester has been refracted through various literary and historical lenses. For specific historical reasons, Manchester has been a productive site for authors to creatively explore and critique humans’ relations to each other and their socio-physical environment. For example, Raymond Williams cites Gaskell’s aforementioned \textit{North and South} as one instance of what he calls “industrial novels.”\textsuperscript{53} Williams claims that the industrial novels he identifies are an “interesting group of novels, written at the middle of the [nineteenth] century … [that] provide some of the most vivid descriptions of life in an unsettled industrial society.”\textsuperscript{54} According to Williams, other exemplars of the “industrial novel” are Charles Dickens’ \textit{Hard Times} (1854) and George Eliot’s \textit{Felix Holt} (1866). For Williams, what sets Gaskell’s industrial novels apart from Dickens’ and Eliot’s are their Manchester setting:

Manchester is at the centre of explicit industrial conflicts in ways that London was not. … Gaskell writes in a city in which industrial production and a dominant market are the determining features, and in which, in quite different ways from London, there is the new hard language of class against class.\textsuperscript{55}

\textsuperscript{51} Ibid.
\textsuperscript{52} Ibid., 71. Indeed, science fiction theorist Patrick Parrinder, who seems to have overlooked Suvin’s concession, offers an extended critique of Suvin’s use of cognitive estrangement as a way to define the genre of science fiction. Parrinder argues that cognitive estrangement is a feature of several literary genres; for example, he notes, “Russian formalists showed that the writing of a realistic novelist such as Tolstoy was full of estrangement effects.” “Revisiting Suvin’s Poetics of Science Fiction,” in \textit{Learning from Other Worlds: Estrangement, Cognition, and the Politics of Science Fiction and Utopia}, ed. Patrick Parrinder (Liverpool: Liverpool University Press, 2002), 37.
\textsuperscript{54} Ibid.
\textsuperscript{55} Raymond Williams, \textit{The Country and the City} (London: Chatto and Windus, 1973), 219.
Williams comments of Gaskell’s writing style that she “could hardly help coming to this life [in industrial Manchester] as an observer, a reporter, and we [the reader] are always to some extent conscious of this [when reading her novels].”\textsuperscript{56} What is implied in Williams’ critique of Gaskell’s “reporterly” style is that a critical distance exists between the actual Manchester Gaskell encountered in her daily life and the fictional Milton she created in her novel. It is this critical distance that transforms Milton from a straight-forward reflection of Manchester into a refraction of Manchester and its industrialisation.

Interestingly, given the ecological interests of this thesis, \textit{North and South} depicts the tensions between its industrialists and workers as arising not only over wages, but also over the environmental conditions within the factories themselves. That is, in addition to being read as an industrial novel that critically refracts labour/capital relations, \textit{North and South} can also be seen as commenting upon issues of environmental justice.\textsuperscript{57} In the novel, one factory worker, Bessy, dies because she is “poisoned by the fluff”—cotton dust, a by-product of the manufacturing process.\textsuperscript{58} Bessy claims that the fluff “winds round the lungs, and tightens them up … [causing those exposed to fall] into waste, coughing and spitting blood.”\textsuperscript{59} However, Bessy notes that her illness could have been prevented if her employer had installed a great wheel at the end o’ [the cotton manufacturing room] to make a draught, and carry off th’ dust; but that wheel costs a deal o’ money—five or six hundred pound, maybe, and brings in no profit; so it’s but a few of th’ masters as will put ‘em up.\textsuperscript{60}

In their discussion of Manchester’s environmental history, Ian Douglas, Rob Hodgson and Nigel Lawson note that “[r]espiratory diseases amongst cotton workers were exacerbated by the dusty and damp conditions in the cotton mills and were the most significant form of death in the 1850s by a fairly substantial margin.”\textsuperscript{61} Gaskell’s Milton, then, directly refers to the actual impact of working conditions on factory hands, and

\textsuperscript{56} Williams, \textit{Culture and Society, 1780-1950}, 87.


\textsuperscript{58} Gaskell, \textit{North and South}, 146.

\textsuperscript{59} Ibid.

\textsuperscript{60} Ibid.

\textsuperscript{61} Douglas, Hodgson, and Lawson, ”Industry, Environment and Health through 200 Years in Manchester,” 241.
also critiques these conditions by highlighting the disastrous health effects of industrialisation for factory workers, through the sympathetic portrayal of Bessy’s demise.

**Deindustrialisation**

_Nymphomation_ and _Pollen_ similarly call forth and critique the socio-economic realities of Manchester in the late-twentieth century. The specific Mancunian history to which these novels speak is of the city’s deindustrialisation, its slide towards neoliberalism and its increasing multiculturalism. As Williams singled out Manchester’s unique position in industrial England, Jamie Peck and Kevin Ward note in their introduction to _City of Revolution: Restructuring Manchester_, a critical anthology about Manchester’s urban development, that “while not wishing to exaggerate the uniqueness of Manchester’s experience, it is difficult to deny that these (cumulative) trends and developments [deindustrialisation and neoliberalism] have been especially intensely experienced in this city.” My analysis of the novels demonstrates how their literary refractions of the late-twentieth century Manchester foreground dimly perceptible relations between environmental degradation and shifts in the city's social and economic situation. In particular, _Nymphomation_ and _Pollen_ critique the city’s transformation from an industrial hub with strong socialist leanings to a deindustrialised city with a rising neoliberal bent.

Nikkianne Moody’s and Tony Keen’s articles on Noon’s work are especially helpful in this regard, because they highlight points of resonance between the historical Manchester of the 1980-90s and Noon’s fictional Manchester. Notably, both Moody and Keen discuss how Manchester’s “rejuvenation” figures in Noon’s early novels. Narratives of “rejuvenation,” “revolution” and “improvement” have surrounded Manchester “right back to its early stirrings as the crucible of industrial capitalism.” However, in response to Manchester’s “experience of large-scale deindustrialisation … [which had] started to pull the guts out of the place [since the 1960s],” in the 1980s and 1990s, the city’s rejuvenation strategies took on a neoliberal flavour. According to Peck and Ward, these strategies included “the narrow obsession with city-centre

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64 Peck and Ward, “Placing Manchester,” 1.
65 Ibid.
66 Ibid., 3.
regeneration, the (re)emergence of elite decision-making networks and privatised governance, the can-do entrepreneurialism of local agencies, [and] the search for ‘joined up’ responses to social exclusion.”67 These strategies, officials hoped, would facilitate the city’s transition from an “old” economy based on industrial manufacturing into the “new economy of high-tech, financial services and cultural industries”68 by attracting national and international investment in Manchester.69

Moody notes in her article that the specific ways deindustrialisation was realised and negotiated in Manchester lent to its being a location from which a British equivalent of North America’s cyberpunk fiction would emerge.70 Cyberpunk (a portmanteau combining “cybernetic” and “punk”) is a North American sub-genre of science fiction, that alongside its representations of a near future dominated by sophisticated virtual reality technologies portrays a “diegesis of a dark future, that is a setting of urban decay and oppressive corporate capital.”71 Moody argues:

[i]n Britain this figurative association between consumer capitalism and political power is found in the cultural practices attendant on music, as the youth of Acid House dance in abandoned urban warehouses and the culture focuses on the industrial city of Manchester ripe for Conservative party policies of urban regeneration.72

Moody continues that this situation finds creative expression in Noon’s cyberpunk versions of Manchester: “Noon’s take on this geographic specificity is to comment on ... inner city regeneration in Britain over the last decade.”73 Indeed, Noon himself notes of his Vurt novels that they:

were very much an outcome of me questioning the city or trying to. I guess I was trying to create an alternative city. Certainly I have no interest at all in "New Manchester," or whatever they call it, the "Rejuvenation." The yuppie flats, and the posh shops, and all of that. I couldn’t imagine setting novels in this new place.74

Even more specifically, Keen notes that the demolition of Manchester’s Hulme Crescents finds fictional form in Noon’s first novel Vurt (to which the worlds of both

67 Ibid.
68 Ibid., 2–3.
71 Ibid.
72 Ibid., 1008.
73 Ibid., 1010.
74 Noon qtd. in Butler, “Journeys Beyond Being,” 68.
Hulme Crescents was one of many “central-city zones targeted for redevelopment ... more than just symbols of a shabby Manchester that had to be erased, they were also very concrete reminders of forms of municipal interventionism that have now been abandoned.” Keen points out that the Hulme Crescents had the reputation of being “extremely dangerous places to go” and a home to the “notoriously deprived.” Nonetheless, continues Keen: many social commentators of the time note that in spite of, or perhaps because of, the dangers, the Crescents were the centre of a vibrant subculture. ... Those who had moved to the Crescents of their own volition felt uneasy about the redevelopment, that something important risked being lost along with the damp, vermin and opportunities for muggers. Noon, who lived in Hulme himself, evidently has some sympathy with that point of view. His characters are anti-authority, but noble and heroic, unlike the forces of law and order, bloated, cruel, sadistic and corrupt.

This sympathetic point of view is in contrast to the dominant narrative of Manchester's 1980s and 1990s “rejuvenation”: Peck and Ward report regular and public self-congratulation for the successful and comprehensive restructuring of the city’s centre by Manchester’s business community. In this socio-historical context, Noon’s cyberpunk Manchester is a refraction of the historical Manchester’s redevelopment that provides a critical alternative to the dominant narrative.

**Post-Industrial Capitalism, Information Society and Neoliberalism**

What is implicit in Moody's and Keen's discussions of the relation between the historical Manchester of the late-twentieth century and Noon's fictional version of it is the impact of post-industrial capitalism on the city. Here I will introduce aspects of the concepts of the post-industrial society and informational society; I will also outline neoliberalism, an economic philosophy that has been enabled by the social and technological shifts that attend post-industrial and informational societies. *Nymphomation* and *Pollen* each construct a version of reality that combines aspects of these three phenomena—post-industrial society, informational society and ...
neoliberalism—in a way that demonstrates and critiques some of their broad-reaching social and environmental consequences. I will refer to the novels’ amalgamation of these concepts as the discourse of post-industrial capitalism.\(^{81}\)

Sociologist Daniel Bell popularised the idea of post-industrial society in his 1973 book *The Coming of Post-Industrial Society*.\(^{82}\) Bell argues that post-industrial societies are marked by a shift from manufacturing to service-oriented industries, owing to increased computerisation—including globalised telecommunication that facilitates the flow of information and goods between distant places.\(^{83}\) In post-industrial societies, the provision of services and the production of knowledge, rather than the production of goods, become the primary drivers of the economy.\(^{84}\) Manufacturing is exported to “Third World” countries (where it can be done more cheaply),\(^{85}\) while “first world” workers, who previously laboured in the increasingly defunct factories of advanced economies, move into service-related jobs.\(^{86}\)

In *The Rise of the Network Society* (originally published in 1996), sociologist Manuel Castells takes up, critiques and revises Bell’s notion of post-industrial society through his emphasis upon the impacts of information technologies\(^{87}\) in shaping modern societies and economies.\(^{88}\) Castells uses the term informational society, rather than post-industrial society, to convey this shift in focus.\(^{89}\) He describes the distinctive

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\(^{81}\) Felix Guattari, whose work on ecosophy I will draw upon extensively in this thesis, also uses the term post-industrial capitalism instead of the more commonly used post-industrial society; nonetheless, he claims to prefer the term “integrated world capitalism” because it emphasises the globalised reach of the social, economic and technological trends that are associated with post-industrial capitalism. *The Three Ecologies* (London: Continuum, 2005), 47. As a cursory note, modifying the term post-industrial with *capitalism* rather than *society*, is preferable in the context of discussing Noon’s fiction because post-industrial economies need not necessarily be tied to the capitalist model. See, for example, André Gorz, *Farewell to the Working Class: An Essay on Post-Industrial Socialism* (London: Pluto Press, 1982).


\(^{83}\) Ibid.

\(^{84}\) Ibid.


\(^{87}\) For Castells argument regarding how his analysis of the relationship between information technology and prevailing socio-economic relations resists technological determinism see Castells, *The Rise of the Network Society*, 5.

\(^{88}\) Castells, *The Rise of the Network Society*. Castells work is also interested in the impact of the increased influence of information technology on identity formation, which while interesting, is not relevant for my present argument.

\(^{89}\) Ibid., 14. Furthermore, Castells uses the term “informational,” rather than “information,” to describe modern social organisations because the latter term, he claims:
features of informational society—"[a] new economy [that] emerged in the last quarter of the twentieth century on a worldwide scale"—in terms of the interrelated ideas of the "informational, global, and networked":

[It is informational because the productivity and competitiveness of units or agents in this economy (be it firms, regions, or nations) fundamentally depend upon their capacity to generate, process, and apply efficiently knowledge-based information. It is global because the core activities of production, consumption, and circulation, as well as their components (capital, labour, raw materials, management, information, technology, markets) are organized on a global scale, either directly or through a network of linkages between economic agents. It is networked because, under the new historical conditions, productivity is generated through and competition is played out in a global network of interaction between business networks.]

As will become apparent shortly, these features of informational societies are intertwined with the realisation of neoliberal economic policies. Here, however, I wish to flag the connection between the proliferation of information—enabled by digital and telecommunication technologies (for example, the internet)—and Castells’ argument that economic production and competition are played out through information networks, a point that is important for my reading of Nymphomania's and Pollen's critique of post-industrial capitalism in terms of ecological concerns. This connection highlights that in informational societies (as opposed to industrial societies), capitalist economies trade in signs rather than in substances. For example, competition between companies for profit is played out through marketing and branding (information networks of symbolic exchange): the company with the "best" marketing or brand wins the customers, rather than the company which provides the best quality goods or services (although, these need not necessarily be mutually exclusive). In such an economy, representation can be seen as trumping "reality" as a locus of value.

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emphasises the role of information in society[, ... which] in the broadest sense, e.g. as communication of knowledge, has been critical in all societies, including medieval Europe which was culturally structured, and to some extent unified, around scholasticism, that is, by and large an intellectual framework. Ibid., 21.

The former term, Castells continues, refers to the "attribute of a specific form of social organisation in which information generation, processing, and transmission become the fundamental sources of productivity and power because of new technological conditions emerging in this historical period," of which the rise of computer-mediated communication is exemplary. Ibid.

90 Ibid., 77.
91 Ibid., 19.
As will be discussed in Chapter One, Section Two ("Blurbflies") and Chapter Two, Section Two ("Flower Map and Dodo Beetle"), Nymphomation and Pollen refract this trend in their fictional worlds in a way that highlights the ecological implications of allowing “reality” to be “forgotten” in the face of the tidal flow of information and signs. For example, the novels feature the growing importance of signs over substance, which they align with environmental degradation. This is directly the case in Nymphomation, where advertising blurbflies come to dominate the city’s skyline in numbers so large they constitute pollution. However, in Pollen, the importance of signs over substances works along a different trajectory. I take the preference for marketing (sign/information) over material (product) in post-industrial capitalism to be a more specific instance of the general distancing of sign from referent that occurs in informational societies.\(^92\) I argue that Pollen literalises this trend in the plot line already mentioned: the characters from the novel’s virtual reality space (a realm of “pure” information and signification) try to colonise the physical reality of the novel’s fictional Manchester via the hybrid virtual-real pollen-pollutant. This virtualisation of reality is depicted as resulting in eco-catastrophe.

Turning my attention to neoliberalism, Peck, whose work I have already mentioned because of its interest in Manchester as a site where neoliberal policies could be seen at work in the 1980s and 1990s, provides a concise summary of this economic theory in “Neoliberal Urbanism: Cities and the Rule of Markets” (which he wrote in collaboration with Nik Theodore and Neil Brenner).\(^93\) Considering neoliberalism through the lens of urban regeneration, as opposed to, for example, the transformation of labour relations,\(^94\) is particularly useful for my purposes, given Noon’s refraction of Manchester’s “rejuvenation” in Nymphomation and Pollen. As

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\(^92\) Mark Poster, a theorist of cultural and media studies with an interest in the impact of digital media on society, elaborates this distancing through a historical consideration of the representational system of money, which he observes has shifted from the bartering of goods with valuable metals (e.g. gold) to the trading of products and services with “oxides on tape stored in the computer department of a bank.” *The Information Subject* (Amsterdam: G+B Arts International, 2001), 13–4. Additionally, Jean Baudrillard develops this idea through the concept of hyperreality, which is discussed and critiqued in detail in relation to Pollen in Chapter Two of the thesis, *Simulacra and Simulation* (Ann Arbor: University of Michigan Press, 1994).


Theodore, Peck and Brenner note: "[n]eoliberal ideology rests on the belief that open, competitive, and 'unregulated' markets, liberated from state interference and the actions of social collectivities, represent the optimal mechanism for socioeconomic development." They suggest that this ideology became prominent during the 1970s in advanced economies "as a strategic political response to the declining profitability of mass production industries and the crisis of Keynesian welfarism." The implementation of neoliberal ideas saw the break-up of "institutional foundations" (such as universal publically-funded education) in order to:

- mobilise a range of policies intended to extend the reach of market discipline, competition, and commodification, such as the deregulation of state control over industry, assaults on organised labour, the reduction of corporate taxes, the privatisation of public services and assets, the dismantling of social assistance programs, the enhancement of international capital mobility, and the intensification of interlocality competition.

Additionally, Castells notes that such strategies are aimed at "deepening the capitalist logic of profit-seeking in capital-labour relationships; enhancing the productivity of labour and capital; globalizing production, circulation, and markets, seizing the opportunity of the most advantageous conditions for profit-making everywhere," which "[t]echnological innovation and organisational change, focusing on flexibility and adaptability, were absolutely critical in ensuring, because they provided] the speed and efficiency needed for restructuring." Thus, through advancements in information technologies, neoliberalism (free-market capitalism) has become manifest in global economies.

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96 Ibid.
97 Ibid.
99 A belief central to neoliberal ideology that is key to my ecologically-oriented interests, but which is not mentioned by Theodore, Peck, and Brenner or Castells, is that limitless economic growth is possible. This is a notion based upon the fallacious assumption of infinite resources. As noted earlier, Wheeler and Dunkerly highlight this connection between neoliberal ideology and ecological concerns; it is a point that will be returned to in Chapter Two of the thesis. Wheeler and Dunkerley, "Introduction," 9–10. Additionally, in another article, Theodore, Peck and Brenner make a more nuanced point about neoliberalism than I have above, when they write that:

"we are not dealing here with a coherently bounded [neoliberal] 'ism,' system, or 'end-state,' but rather with an uneven, contradictory, and ongoing process of neoliberalisation. Hence, in the present context, the somewhat elusive phenomenon ... must be interpreted as a historically specific, fungible, and unstable process of market-driven sociospatial transformation, rather than as a fully actualised policy regime, ideological apparatus, or regulatory framework. "Neoliberal Urbanism: Models, Moments, Mutations," The SAIS Review of International Affairs 29, no. 1 (Winter 2009): 51."
As will be discussed in Chapters One and Two, *Nymphomation's* and *Pollen's* versions of post-industrial capitalism are staged in a fashion that critiques neoliberalism. I read these novels' critiques as especially taking aim at the policies of privatisation, interlocality competition and the erosion of social welfare, which they associate with the ruination of the socio-physical environments of the fictional Manchesters they respectively depict. Moreover, it is through these three neoliberal strategies that *Nymphomation's* (more than *Pollen's*) refraction of neoliberalism dovetails with its refractions of post-industrial society and informational society. *Nymphomation* portrays its social hierarchy (poor and wealthy) as being negotiated through the symbolic (informational) exchange system of money, and the presence of AnnoDomino in its city as being the result of a competitive symbolic (informational) exchange system, in which the aim is to be a better site for private investment than neighbouring cities. Both of these points will be unpacked in detail in Section Two of Chapter One. In summary: the impacts of deindustrialisation, neoliberalism and post-industrial capitalism on the historical Manchester are all refracted through *Nymphomation's* and *Pollen's* cyberpunk versions of the city. Moreover, the particular ways the novels refract these historical realities draws attention to and critiques the environmental impacts of such social, economic and technological shifts.

**Multiculturalism**

Another aspect of Manchester’s historical reality that is refracted through *Nymphomation* and *Pollen*, and which I will also argue is integral to these novels’ ecological dimension, is the city’s multicultural make-up. As Douglas, Hodgson and Lawson note, Manchester’s population has remained relatively stable since the 1960s, due to the “arrival of Commonwealth country immigrants, from the African Asian entrepreneurs and Indian professionals to the Bangladeshi textile workers.”

In Noon’s early novels, Manchester’s racial and cultural diversity finds expression in a myriad of hybrid and posthuman characters. Keen notes that this is a “classic science-fiction device, enabling Noon to write about race and class without being tied to the specifics (and potential for causing offence) of reality.” And Moody highlights that unlike Noon’s critical reflections on Manchester’s adoption of neoliberal strategies, his

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However, as *Nymphomation* and *Pollen* are novels, their evocations of neoliberalism represent fictionally-rendered reifications of the ideology, that is, they construct a particular, relatively coherent (read: stereotypical) version of this “elusive phenomena” in order to critique it.

100 Douglas, Hodgson, and Lawson, “Industry, Environment and Health through 200 Years in Manchester,” 238.

novels champion the city’s racial and ethnic diversity: “[t]hroughout his work Noon reiterates ‘pure is poor,’ celebrating the cultural diversity of his fictional worlds.”\textsuperscript{102}

Indeed, in an interview with David Barrett, Noon cites Manchester’s cultural diversity as a productive and positive social force:

\begin{quote}
Manchester is a very multi-ethnic place, and also it’s still riddled with the old class thing, so there are lots of different kinds of people in a small city ... jammed up tight together. Some people hate this; other people like me, love it, because it creates diversity, and diversity creates culture, and so on.\textsuperscript{103}
\end{quote}

Noon’s understanding of the benefits of diversity seems to find expression in \textit{Nymphomation} and \textit{Pollen}. I read these novels as not only suggesting that diversity creates culture, but that it also saves late-twentieth century culture from the socio-physical problems perpetuated and exacerbated by post-industrial capitalism. Diversity is invested with this power through its purported propensity to create ruptures in dominant, homogeneous and oppressive cultural discourses. The novels present such ruptures as paving the way for multiple, alternative and empowering discourses to emerge. The connection between diversity and socio-physical improvement can be seen at the resolution of each novel, both of which feature the reparation of the socio-physical problems that had plagued their respective fictional versions of Manchester. In both cases, these “happy endings” rest upon the ability of characters with hybrid (posthuman) subjectivities to draw upon their diverse cultural knowledge and experience to respond to the environmental challenges they face. Significantly, in making characters with hybrid identities “environmental saviours,” these novels imply that the traditional western notion of the (hu)Man—a figure conceptually separate from and master of the material world in which he exists\textsuperscript{104}—is not the proverbial “man for the job” when it comes to dealing with anthropogenic environmental problems. Thus, these novels suggest that, if environmental challenges are to be met, the traditional ontological status of the human must be unravelled and re-configured.

\begin{footnotesize}
\begin{enumerate}
\item Moody, “Social and Temporal Geographies of the near Future,” 1011.
\item Barrett, “The Lucidity Switch” 46.
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\end{footnotesize}
Section Three: Refractions of Cyberspace

The ecological dimensions of *Nymphomation* and *Pollen* are also productively explored through the intertextual relation of Vurt technology—a centrepiece of these fictional realities—to William Gibson’s seminal literary representation of virtual reality, a realm Gibson terms *cyberspace* in his 1984 cyberpunk classic *Neuromancer*. In interviews with book reviewers Geoff Ryman and Bella Pagan, Noon acknowledges his familiarity with Gibson’s cyberspace, and credits it as an influence on his writing. Moreover, the resonance between Noon’s Vurt and Gibson’s cyberspace is a common feature of analyses and reviews of Noon’s Vurt series. Thus, like the socio-economic reality of Manchester in the late-twentieth century, Gibson’s literary representation of cyberspace is an important framework through which to consider *Nymphomation* and *Pollen*. In terms of the ecologically-oriented interests of this thesis, the differences, more than the similarities, between Vurt and cyberspace are central to my understanding the eco-projects of *Nymphomation* and *Pollen*. Therefore, after describing Vurt, introducing the concept of virtual reality, and outlining its similarities to Gibson’s cyberspace, I will offer a detailed discussion of three ways that Vurt differs from cyberspace, elaborating upon their significance for the ecological dimension of Noon’s novels.

**Virtual Reality**

Before discussing Noon’s Vurt, I will first outline the notion of virtual reality, which is a concept that I engage with throughout this thesis. Here I will introduce three ideas with which the term is often associated: I will argue, especially in Section One of Chapter One, that Noon’s representation of Vurt mediates between all three sense of virtuality. Firstly, virtual reality conjures images of a particular kind of futuristic technology: “HMD (head-mounted display) and DGs (data-gloves) [...] that allow users to enter] a computer-generated, three-dimensional landscape in which all of [their] wishes can be fulfilled.” The simulated landscape that users experience constitutes the virtual reality environment, and the mediating apparatuses (HMD, DGs and computer software) constitute the concrete technologies that enable users to interact

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with such immaterial environments. Via the apparatus of the concrete virtual reality technology, a cybernetic feedback loop is created between users and the virtual environment.\(^{109}\) Secondly, virtual reality is used generally to refer to “the imaginary ‘space’ on the other side of the computer screen (by analogy with the virtual space on the other side of a mirror).”\(^{110}\) Virtual reality, when understood in this way, is tied to computer-based technologies that currently exist, and via the virtual networks enabled by the internet, is seen as already instantiated in post-industrial, informational societies.\(^{111}\) Thirdly, the term is also used as an abstraction (by philosophers such as Gilles Deleuze, Jacques Derrida and Elizabeth Grosz) to describe a set of qualities that arise from concrete virtual reality technologies “such as fluidity, becoming, or possibility itself.”\(^{112}\) Understood through this lens, virtual reality operates as a conceptual tool that can be mapped onto ideology—both virtual reality and ideology represent immaterial entities.\(^{113}\) Moreover, by analogy, the fluidity of virtual reality is conferred onto ideology; therefore, virtual reality is endowed with the capacity to expose ideological legitimation strategies.\(^{114}\) If ideology is like virtual reality, then the “reality” that confronts subjects, despite appearing fixed and universal, is in fact open to change.\(^{115}\)

As I will argue throughout the thesis, all three senses of virtual reality converge in Noon’s Vurt. Nymphomation and Pollen both offer literary representations of


\(^{113}\) Foster, “Virtuality,” 320.


concrete virtual reality technologies. However, their versions of virtual reality resist some of the utopian ideals attached to the concept, particularly its uncritical celebration of the dematerialisation of physical reality,\(^\text{116}\) which will be discussed in this Section, as well as the notion that cyberspace offers limitless opportunities for capitalist expansion,\(^\text{117}\) which will be discussed in Chapters One and Two. Nonetheless, these novels rehearse the notion that virtual reality offers an insight into the fluidity, rather than fixity, of ideology. In *Nymphomation* and *Pollen*, the particular way this idea is rendered associates such an insight with socio-economic changes that enable the emergence of improved socio-physical environments.

**Vurt**

As already noted, *Nymphomation* and *Pollen* form part of a loosely connected series of novels and short stories that develop the Vurt concept. *Nymphomation* can be understood as providing a backstory to the origins of the Vurt technology;\(^\text{118}\) whereas *Pollen* can be seen as providing an image of a future in which Vurt technology pervades all aspects of "reality." Vurt is most directly explained to the reader in *Pollen*'s prologue, which provides an encyclopedia-like overview of the technology:

> [t]here is now little doubt that one of the most important discoveries of the last century was the ability to record dreams onto a replayable medium, a biomagnetic tape coated with *Phantasm* liquid. This liberation of the psyche, in its most advanced form, became known as Vurt. Through the gates of Vurt the people could re-visit their own dreams, or, more dangerously, visit another person's dream, a stranger's dream.\(^\text{119}\)

The shared dream space of Vurt is accessed by tickling the back of the throat with a feather, and once "inside" the dream space, characters participate in the dream narrative as if immersed in a virtual reality game.

A feature of Vurt typically ignored in critical discussion of Noon's Vurt-series is that it not only serves entertainment purposes: its functionality is also employed in the


\(^\text{117}\) For an elaboration of this idea see Brande, "The Business of Cyberpunk: Symbolic Economy and Ideology in William Gibson."

\(^\text{118}\) Keen, "Feathers Into an Underworld," 103.

\(^\text{119}\) Noon, *Pollen*, 3.
service of commercial and government interests. For example, in *Pollen*, a company called Xcab uses Vurt technology to run its taxi service efficiently, and government departments use it to monitor and access information about the city and its citizens. Discussing Vurt technology in his debut novel, *Vurt* (1993), Noon says: “[i]n my mind *Vurt* was about VR [virtual reality], but I wanted to take it beyond technology, I wanted to take it to the point that it had become such a part of society that they no longer knew what it was.” As such, Vurt technology is more than simply a tool that is used by characters: it is represented as a force that impacts upon the environment directly, through changes to physical infrastructure (and more alarmingly, in *Pollen*, through changes to DNA structure), and also indirectly, by shaping the ways characters interact with and understand their relation to their physical-v(i/u)rtual reality. These ideas will be explored in detail in Chapter One (Section Two, under the heading “Blurbflies”) and Chapter Two (Section Four, under the heading “Maps and Myths”).

**Cyberspace and Mind/Body Dualism**

Noon’s version of virtual reality alludes to Gibson’s description of virtual reality in *Neuromancer*. In *Neuromancer*, Gibson depicts virtual reality as:

[a] consensual hallucination experienced daily by billions of legitimate operators ... [a] graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of flight ranged in the nonspace of the mind, clusters and constellations of data.

Gibson envisions cyberspace’s “billions of legitimate operators” as accessing these banks of abstracted data by connecting to a computer via “dermatrodes,” which they place on their skin, or via “simstim” devices, which they have surgically implanted into their bodies. Noon’s Vurt is similarly a nonspace that exists primarily in the minds of users. It enables participants to collectively experience the v(i/u)rtual realm (hereafter Vurtual). Also, like Gibson’s cyberspace, access to this nonspace requires a connecting technology; however, for Noon, dream-feathers substitute for dermatrodes, simstims and computers. By tickling dream-feathers at the back of their throats, the mind and sensorium of Noon’s characters become completely immersed in the happenings of the Vurtual realm. Users’ experience of the Vurtual realm is thus like a hallucination: it is experienced as if it occurred in reality, but in actuality it only occurs in the users’ minds. Yet Vurt technology, like cyberspace, is also hallucinatory in the sense that the content

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122 Ibid., 68.
of what users experience in the Vurtual realm distorts and bends “reality” in ways that would be impossible in a world bound by the laws of physics.\(^{123}\) The nonspace of Vurt is thus also a technologically mediated nonspace of the fantastic.

Despite these similarities, Noon's Vurt diverges from Gibson's cyberspace in three significant ways, which I will outline here. Firstly, the processes underpinning Vurt technology are organic rather than mechanical; secondly, the immaterial objects of Vurt can materialise in reality (and vice versa), so the novels' fictional realms of physical reality and Vurtual reality, rather than existing in parallel, intersect and directly interact with each other; and thirdly, the content of the Vurt-realm is primarily based upon dreams and narratives rather than upon abstracted computer data.\(^{124}\) In order to account for why these three differences are significant for my understanding of the eco-projects of *Nymphomation* and *Pollen*, I must first outline how Gibson's cyberspace has been understood as exemplifying mind/body dualism. I will then explain—by reference to the work of eco-philosopher Val Plumwood in *Feminism and the Mastery of Nature*\(^{125}\)—the logic that connects mind/body dualism to environmental degradation, as well as the role of dualism in legitimating and perpetuating a disregard for the environment. This will lead to the argument that, while cyberspace reinforces the escapist fantasy that "mind" and human are separable from and independent of their bodies and the ecosystems that sustain them, Vurt's differences from cyberspace emphasise how mind and matter, information and reality, and discourse and environment are phenomena that are inextricably interconnected and interdependent.

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\(^{123}\) Butler suggests that, because of the “existence of genetic crossbreeds such as Dogmen, Shadowcops, Robodogs, Vurtcops” in the “real” of Noon’s fiction, “the sort of mutation possible in cyberspace can happen in ‘reality’.” *Journeys Beyond Being,* 71. In other words, Butler argues that the laws of physics are as pliable in the “real” of Noon’s fiction as they are in the Vurt. Butler uses this argument to suggest that Noon’s Vurt novels make it difficult to maintain the ontological distinction between the Vurt and the “real” in their fictional realities. Ibid. By focusing upon two textual elements not considered by Butler in his argument (the “Lucky Bleeders” in *Nymphomation* and the “dodo beetle” in *Pollen*), I will argue that the novels do maintain an ontological distinction between the Vurt and the “real,” where the “real” exists as a marker of an ecological limit that impedes upon the extent to which Vurtual entities can shape it before making it uninhabitable.

\(^{124}\) In *Journeys Beyond Being* Butler similarly identifies these differences between Gibson’s cyberspace and Noon’s Vurt. However, whereas Butler’s interest in these differences lies in situating Noon’s oeuvre within the genre of cyberpunk, my interest lies in their significance for the eco-projects of *Nymphomation* and *Pollen*.

\(^{125}\) Val Plumwood, *Feminism and the Mastery of Nature* (London: Routledge, 1993). It is also worth noting that Plumwood’s arguments, in combination with the notion of “ecological thinking” (that will be outlined in Section Three of the Introduction), provide the broad conceptual framework through which I understand the ecological dimensions of *Nymphomation* and *Pollen*, so I will provide an extended synopsis of her arguments in this section.
Gibson’s cyberspace is often associated with disembodiment or escape from what Gibson calls ‘the meat’. For example, Suvin remarks of Gibson’s cyberspace that “anything is possible[, an] abstract logic and cultural ecstasy is hidden beneath [Gibson’s] hardboiled technical vocabulary, a yearning to get out of the dinginess and filth of everyday life.” Cyberspace, when understood in this way, seems to literalise a Cartesian mind/body dualism: cyberspace is imagined as a realisation of the decoupling of the “mind” from the physical body, where “mind” is analogous with information insofar as both are non-material entities. Furthermore, in *Neuromancer*, Hayles notes that there is a “contrast between the body’s limitations and cyberspace’s power” which becomes especially potent in the late twentieth century because of “conditions that make physicality seem a better state to be from than to inhabit”: [i]n a world despoiled by overdevelopment, overpopulation, and time-release environmental poisons, it is comforting to think that physical forms can recover their pristine purity by being reconstituted as information patterns in a multidimensional computer space. A cyberspace body, like a cyberspace landscape, is immune to blight and corruption[...]. The sense that the world is...

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128 Hayles, *How We Became Posthuman*, 39. For more explanation see Chapter One in *How We Became Posthuman*, “Toward Embodied Virtuality,” in which Hayles elaborates upon the role of cybernetic theory in modern conceptions of “information as a thing separate from the medium instantiating it” and how materiality had to be “forgotten” in order for this idea to be persuasive (ibid., 13), and also Chapter Two, “Virtual Bodies and Flickering Signifiers,” where she discusses Gibson’s cyberspace as a literary exemplar of this notion (ibid., 35–9).

129 Ibid., 36.
rapidly becoming uninhabitable by human beings is part of the impetus for the displacement of presence by [information] pattern[s in contemporary literature].

For Hayles, Gibson’s cyberspace is partly a response to an awareness of humans’ precarious environmental position (albeit minus an emphasis upon how humans have contributed to this precariousness). Cyberspace is thus imagined in Neuromancer not only as an escape from the body, but as an escape from physical reality altogether.

**Val Plumwood and the Logic of Dualism**

Before further elaborating the relationship between cyberspace’s “trope of transcendence” and its relationship to environmental concerns, I will introduce a strand of Plumwood’s argument that sets out how a dualism such as mind/body is logically connected to other dualisms, such as culture/nature or self/other, via “linking postulates.” Plumwood notes that there are a “set of interrelated and mutually reinforcing dualisms which permeate western culture[, forming] a fault-line which runs through its entire conceptual system.”

Plumwood continues, “[k]ey elements in the dualistic structure in western thought” can be found in “the following sets of contrasting pairs”:

- culture / nature
- reason / nature
- male / female
- mind / body (nature)
- master / slave
- reason / matter (physicality)
- rationality / animality (nature)
- reason / emotion (nature)
- ...

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130 Ibid.
131 Plumwood, *Feminism and the Mastery of Nature*, 42. Plumwood notes that this insight has been drawn by both feminist philosophy and ecological feminism, which have “given a key role in their accounts of western philosophy to the concept of dualism, the construction of a devalued and sharply demarcated sphere of otherness.” Ibid., 41. However, whereas other feminist theorists have identified man/woman as the pairing that connects and underpins the entire conceptual system—see, for example, Cixous’ essay “Sorties” in *Literary Theory: An Anthology*, eds. Julie Rivkin and Michael Ryan (Malden: Blackwell, 1998), 578–84—Plumwood “sharpen[s] up” this notion by identifying a “gendered reason/nature contrast [where male is associated with reason and female with nature] ... as the overarching, most general, basic and connecting form of these dualisms.” Plumwood, *Feminism and the Mastery of Nature*, 41, 44.
132 Ibid., 43.
Plumwood argues that all of these contrasting pairs are derivations of a “gendered reason/nature contrast,” where male is associated with reason and female with nature. Moreover, she explains how “linking postulates” logically connect them:

[linking postulates are assumptions normally made or implicit in the cultural background which create equivalences or mapping between [contrasting] pairs. For example, the postulate that all and only humans possess culture maps the culture/nature pair on to the human/nature pair; the postulate that the sphere of reason is masculine maps the reason/body pair on to the male/female pair; and the assumption that the sphere of the human coincides with that of intellect or mentality maps the mind/body pair on to the human/nature pair, and via transitivity, the human/nature pair on to the male/female pair.]

Therefore, returning momentarily to the mind/body dualism that underpins cyberspace’s “trope of transcendence,” the postulate that humans are possessed of “mind” maps the mind/body pair on to the reason/matter (physicality) pair, and via transitivity, the reason/matter (physicality) pair onto the culture/nature pair. In other words, by making explicit the chains of linking postulates that create equivalences between dualistic pairs, the connection between dualisms—such as mind/body, reason/matter, culture/nature—can be seen.

Plumwood focuses upon dualism and how it permeates and connects the conceptual system of western culture, in order to highlight how the gendered reason/nature pair links the domination of humans over nature to men over women, self over other, and reason over the body and emotions. In other words, she is concerned with identifying the logical underpinnings that help to naturalise and legitimate the oppression of the disempowered by the empowered across a range of discourses, including the domination of “nature” by humans, which she notes is a more recent addition to the conceptual list, but which, “like the others, ... can be fully understood only as part of the interrelated set.” In Chapter One, under the heading “Yawndale Monstermarket and 'Dream to Win,’” I will elaborate in detail Plumwood's discussion of the operation of the techniques of dualism and her argument about how
they naturalise and legitimate oppression. However, for my purposes here it suffices to note Plumwood’s description of dualism as:

a relation of separation and domination inscribed and naturalised in culture and characterised by radical exclusion, distancing and opposition between orders constructed as systematically higher and lower, as inferior and superior, as ruler and ruled, which treats the division as part of the natures of beings construed not merely as different but as belonging to radically different orders or kinds, and hence as not open to change.\textsuperscript{139}

The key points for my discussion are that dualism rests upon the conceptual separation of the terms in each pair; in turn, this conceptual separation relies upon distancing—which Plumwood notes includes denying the ways the empowered term depends on the services provided by disempowered term,\textsuperscript{140} and construing the relationship between the terms as superior and inferior. Plumwood stresses that separation, distancing (denial of dependency) and hierarchal opposition between orders—which characterise the relationship between all derivations of the gendered reason/culture pair that includes mind/body and culture/nature—contributes to the current environmental crisis and the inability of the contemporary model of the human to deal with it:

[m]uch modern environmental wisdom from such thinkers as David Suzuki has as its main theme the message that humans are animals and have the same dependence on a healthy biosphere as other forms of life. On the surface, it is puzzling that an apparent truism should find so much resistance and should need to be stressed so much. But the reason why this message of continuity and dependency is so revolutionary in the context of the modern world is that the dominant strands of western culture have for so long denied it, and have given us a model of human identity as only minimally and accidentally connected to the earth.\textsuperscript{141}

In other words, in the discourse of the environment, the logic of dualism can be seen as significantly downplaying the ways that humans are reliant upon and interconnected with the biosphere (“nature”), which undermines the need and the urgency of developing and implementing policies, practices and technologies that will help enable the biosphere to continue to support human life.

\textsuperscript{139} Ibid., 47–8.
\textsuperscript{140} Ibid., 48.
\textsuperscript{141} Ibid., 6.
Bringing Plumwood’s arguments about dualism to bear on Gibson’s cyberspace, it becomes apparent that the three characteristics of dualism highlighted above can be seen in the fantasy that cyberspace represents: namely, that a “mind” can escape the body (and the environment) that contains it. Firstly, this fantasy of escape rests upon the idea that “mind” and body can be actually separated; secondly, it suggests that “mind” can exist independently of the body (that is, independently of material constraints),\textsuperscript{142} which denies that “mind” depends on “embodiment ... [to bring] it into being as a material entity in the world”;\textsuperscript{143} and thirdly, it implies that “mind” is superior to body—the latter being denigrated as dumb matter, “meat.” Moreover, as mind/body dualism is part of the interrelated set of contrasting pairs underpinning the model of human identity that both legitimates the domination of “nature” by humans and also characterises humans as only minimally and accidentally connected to the earth, Gibson’s cyberspace can be seen as underscoring the difficulty many modern, western humans have in accepting the apparent truism that a healthy biosphere is a primary condition of their existence. The underpinning logic here is as follows: if we can escape the body and the environment that contains it, then why bother dealing with the difficult, complex and economically challenging task of trying to maintain a healthy biosphere?\textsuperscript{144} In short, the mind/body dualism that Gibson’s cyberspace represents is connected to the reason/culture dualism that legitimates and underpins the domination and despoilment of “nature;” furthermore, because mind/body dualism reinforces the notion that humans are separate from, superior to and independent of the physical environments in which they exist, it helps to reinforce an attitude that disregards the importance of striving to maintain a healthy biosphere. In the section that follows, I will argue that Vurt’s differences from Gibson’s cyberspace—Vurt’s organic origin, material exchange and narrative basis—emphasise the ways that mind and matter, information and reality, discourse and environment are interconnected.

\textsuperscript{142} Hayles, \textit{How We Became Posthuman}, 13.

\textsuperscript{143} Ibid., 49.

\textsuperscript{144} I have adapted this rhetorical question from Hayles’ discussion of the “powerful dream” that is prevalent in information theory and cybernetics—namely, the idea that information can be extracted from and exist independently of the material forms in which it is substantiated: “[i]f we can capture the Form of ones and zeros [binary information] in a nonbiological medium—say, on a computer disk—why do we need the body’s superfluous flesh?” Ibid., 13. Incidentally, here Hayles can be seen mapping the contrasting pair of information/materiality onto the mind/body pair. Later, in a move that mirrors Plumwood’s line of thought, Hayles maps information/materiality onto human/nature in order to caution her readers to be mindful of the fragility of the planet: “[i]nformation, like humanity, cannot exist apart from the embodiment that brings it into being as a material entity in the world. ... Once the specific form constituting it is gone, no amount of massaging data will bring it back. This observation is as true of the planet as it is of an individual life-form. As we rush to explore the new vistas that cyberspace has made available for colonisation, let us remember the fragility of a material world that cannot be replaced.” Ibid., 49.
rather than separate. This interconnectedness, in turn, foregrounds how these contrasting pairs are interdependent, and of mutual importance to each other. Vurt is thus of central importance to the ecologically-oriented reading of Nymphomation and Pollen presented in this thesis because it problematises the reason/nature dualism that facilitates the degradation of the environment.145

**Vurt’s Organic Basis**

The hardware and manufacturing process underpinning Vurt technology is grounded in biological rather than mechanical processes. While the faux-historical record of Vurt that opens Pollen states that “the actual origins of the Vurt and the method by which human beings travelled there (via ‘dream-feathers’ which were placed in the mouth) will always be shrouded in mystery,”146 Nymphomation nonetheless goes some way towards providing such an explanation. In Nymphomation, Vurt technology has not yet been invented; however, Nymphomation's narrative suggestively closes with the first line of Vurt: “the young boy puts the feather into his mouth.”147 In Vurt, this action transports the young boy into the Vurt-realm, implying that the action of the boy in Nymphomation has a similar effect, which in turn retrospectively frames Nymphomation's narrative as a backstory about the origin of Vurt technology.148

The special property of the feather in Nymphomation is that it is covered in a peculiar “juice.” This is a result of it being dragged through the factory site where AnnoDomino produces the tokens that are integral to its city-wide lottery. This juice is part of the domino token production process, which involves the asexual reproduction of a hermaphrodite creature—the monstrous amalgamation of Miss Sayer, the inspiration behind the process, and Paul Malthorpe, a developer of the process. The

145 Gough’s reading of Vurt, Pollen and Nymphomation in “A Crossbreed Loneliness? Jeff Noon’s Feminist Cyberpunk” also highlights the ways these novels resist and transform cyberpunk’s association with the “trope of transcendence.” However, whereas Gough’s arguments focus upon the implications of these points of difference in terms of the novels’ representations of gender, my argument is concerned with their implications for the ways Nymphomation and Pollen imagine the relation between the human and the nonhuman in terms of their ecological consequences.

146 Noon, Pollen, 3.
147 Noon, Nymphomation, 363.
148 Noon recalls that he came upon this idea at a book signing: “I was doing a reading in Manchester one time, and a woman asked me what I was working on at the moment, and I told her about this idea of a first Vurt novel. And she said, ‘Oh, you mean it’ll end with the first line of Vurt?’ And I said, ‘Erm, yeah!’ So, it does.” “Nymphomation: Extra Content, 1997,” Metamorphiction, 2010, http://www.metamorphiction.com/index.php/printed/nymphomation/.
Sayer-Malthorpe creature is controlled and put to work by Mr Millions, the CEO of AnnoDomino, and is held in a pit at the AnnoDomino Company headquarters:

[the creature was ... a mass of black flesh, dripping with juice that shone in tiny rivers down wrinkles of fat. A net of electrical wires connected it to the pit’s sides, and within this web the thing squirmed like a beetle. Here and there on the gross body, tiny dots of white mapped a hopeless camouflage. A large gaping orifice slathered from its belly, with a thick, tongue-like protuberance poking through like a blind flesh snake. ... Every second or so the tongue stump would push a still slippery ever-changing domino bone through the opening (POP!), which was immediately grabbed by a passing blurbfly and gone, through the pit and out of the exit portal to the world.]

Interestingly, this image of the domino production process is somewhat reminiscent of de Tocqueville’s description of nineteenth century Manchester. The creature’s pit is the factory’s “foul drain” and “filthy sewer,” and the blurbflies (along with the domino tokens and advertising messages they carry) are the “stream” by which post-industrial capitalism’s “industry flows out to fertilise the whole world,” securing Mr Millions his “pure gold.”

The juice produced by the creature—through which the domino tokens and the blurbfly messages are programmed—combines the process of biological evolution (the replication and mutation of DNA) with the mathematical process of evolution within an artificial, cybernetic computer system. (Nymphomation explicitly references a program that simulates evolution in a computer created by mathematician John Horton Conway in the 1970s called “Game of Life.”) Noon summarises the process, which he calls nymphomation, and its consequences as follows:

I’ll just explain what nymphomation is: it’s a way of propagating knowledge. Geoff Ryman gave me this example, which is a great way to explain what nymphomation is. ... “What you do is, you take the body of knowledge that is called mathematics and you take the body of knowledge that is called flag-waving, and you mate them, and they produce a baby that is the mathematics of flag-waving.” And that’s what nymphomation is. So what this means is that evolution could start to play a role. Once you get evolution, things become very powerful. And because of these techniques that people have invented,
information is getting so-o-o powerful that it's actually starting to threaten human life.152

As Noon points out, combining popularised understandings of mathematical theories with evolutionary biology (with an emphasis on mutation) invests his version of virtual reality with a vital unpredictability. Organic processes are germane to Vurt’s “hardware” and “software.” The physicality of the organic is emphasised as integral to the existence and functioning of Vurtual reality. These representations of Vurt’s origins associate the technology with a disgusting, messy and visceral reality, instead of a sanitised, controllable and abstracted cyberspace bereft of blight. Additionally, they foreground Vurt as being in a relation of interdependence with a physical reality that it helps to shape and cannot “escape.”

A shift in emphasis from the representations within the novel to the relation between the text and the reader indicates that by eliciting the reader’s disgust response, Nymphomation’s representations of Vurt’s origins frustrate its being understood as a technology of physical transcendence. This argument rests upon two points that need brief explanation. Firstly, virtual reality technologies (and their literary-imaginative manifestations) have been taken up by poststructuralist philosophers of virtuality as instantiating a general insight into the “mediated nature of our relation to ourselves and our experiences.”153 For example, Elizabeth Grosz, whose work draws upon and extends ideas found in French poststructuralism, contends that:

[i]nstead of too closely identifying [virtual reality] with the invention of new technologies—as is the current obsession—we must realize that since there has been writing (in the Derridean sense of trace—that is, as the very pre condition of culture itself), there has been some idea of the virtual. The text we read may be a real space, but to the extent that it is comprehensible to us, it also exists in a state of virtuality.154

In other words, in philosophical discussion, the imaginary worlds that are evoked by texts have been understood as virtual spaces.155 Secondly, it is necessary to elaborate what is meant by “disgust response.” Paul Rozin and April Fallon, whose research on psychobiology is interested in psychosomatic responses to food, note:

154 Grosz, Architecture from the Outside, 78.
155 While Grosz’ discussion of virtuality critiques mind-body dualism and physical transcendence—“[i]f we don’t just have bodies but are bodies (as I [Grosz] have argued elsewhere), there can never be the threat of displacing body in favour of mind or abandoning the real for the virtual”—she notes that in philosophical discourses on the topic, the notion that virtuality realises the ideal of bodily transcendence is typical. Ibid., 85, 81.
[d]isgust has been recognized as a basic emotion since [Charles] Darwin. Like other basic emotions, disgust has a characteristic facial expression [puckered-lips], an appropriate action (distancing of the self from an offensive object), a distinctive physiological manifestation (nausea), and a characteristic feeling state (revulsion).\textsuperscript{156}

Collectively, these reactions to the emotion of disgust constitute the disgust response. For the purposes of this discussion it is important to note that “disgust is a prototypical example of the interaction of affect and cognition,” that is, disgust elicits emotional and cognitive responses.\textsuperscript{157} Furthermore, a “substance may become disgusting because it perceptually resembles an existing (primary or secondary) disgust substance[, for example, viscous] substances resemble mucus [which is a primary disgust substance].”\textsuperscript{158} That is, viscous and mucosal entities trigger a psychosomatic response in humans, revealing the “mind” and body to be intimately connected.

Noon’s construction of the Malthorpe-Sayer creature in \textit{Nymphomation}, with its preponderance of viscous imagery, encourages a somatic disgust response from the reader. In \textit{Pollen}, Vurt technology is likewise associated with mucosal imagery—the Vurt-pollen causes a terrible hay fever, and Noon liberally peppers his descriptions with globules of “snot flying through the air.”\textsuperscript{159} Reversing the emphasis of Grosz’ final sentence in the quote above, the extent to which the virtual aspect of Noon’s prose becomes comprehensible to the reader resides in its ability to engage the reader’s affective response. Put another way, the “virtuality” that the imaginary world that the text evokes becomes (more) meaningful by eliciting the reader’s emotional (disgust) response. By encouraging readers’ disgust response in relation to Vurt technology, \textit{Nymphomation} reinforces the notion that Vurt, and the “virtuality” of textuality more generally, does not exist in a sterile space outside or beyond the physical bodies of readers or the physical environments that support them. Instead, by eliciting an obvious physical response in the reader, the “virtuality” of textuality, like the Virtual reality of the novels, underscores the ways the virtual and the real are in a relation of mutual influence—the virtual (and the Virtual) produce changes in a physical (body) from which it cannot be severed.

\textsuperscript{157}Ibid., 33.
\textsuperscript{158}Ibid., 37.
\textsuperscript{159}Noon, \textit{Pollen}, 165.
Val Gough, in her feminist analysis of Noon's early novels, distinguishes between cyberspace as escape—a temporary state, and cyberspace as transcendence—a permanent state, arguing that Vurt is aligned with the former rather than the latter. However, she notes that when Noon's characters do indulge in Vurt's capacity to offer escape, it leads to undesirable outcomes, leading Gough to conclude that Vurtual technology "raises ethical questions about technophilia and refuses to valorise cyberspace as a form of potential transcendence." Gough's interpretation hinges upon a unique feature of Noon's version of virtual reality: namely, its "MECHANISMS OF EXCHANGE" that allow objects from Vurt to be swapped for objects in the real (and vice versa). According to the logic of Noon's Vurt novels, once an object has been exchanged it can exist permanently in its non-native realm. The details of Vurt's mechanisms of exchange are outlined in the novel Vurt:

\[ R = V + or - H, \]

where H is Hobart's constant. In the common tongue; any given worth of reality can only be swapped for the equivalent worth of Vurtuality plus or minus 0.267125 of the original worth. ... [It's] not about weight or volume or surface area. It's about worth. How much the lost ones count, in the grand scheme of things. ... We have prostrated ourselves at the feet of goddess Vurt, and we must accept the sacrifice. ... Swapping back can be made, but the way is full of knives, glued-up doors, pathways of glass. Only the strong can make it happen.

Interacting with the Vurt "does not escape ethical implications and dilemmas" because of its insistence upon exchange rates. For example, Gough notes that in Vurt, the main character loses his sister to the Vurt; in Pollen the "innocent" Brian Swallow is swapped for the "illegal entrance" of Vurt-being Persphene into reality; and in Nymphomation—where Gough argues AnnoDomino figures as a "corporate cyberspace"—the company's "offer of massive profit (the winning million) coincides only with a concomitant risk of massive loss: the risk of 'winning' the joker bone, which signals utter disaster for its owner [their death]." Therefore, Vurt is not a space where the troubles of "reality" can be left behind; rather, it is a space that comes with...

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161 Ibid., 121. Butler also notes that, in Noon’s fiction, because of Vurt’s mechanism of exchange, which will be explained in the main discussion presently, characters’ journey into the "paraspace of cyberspace, which apparently strips the traveller of a fixed physical body[,] ... is also an insistence on the importance of the physical body." Ibid., 71.
163 Ibid., 76.
165 Ibid., 120–1.
its own set of serious risks that impinge upon the “reality” to which the characters return.

Gough’s insights into the ethical implications and dilemmas that arise for characters through their interactions with Vurt can similarly be extended to broader social and environmental contexts. It is important to note that to make this argument I am shifting from the direct Vurt exchanges and ethics that Gough details to the more implicit exchanges and implications that accompany the Mancunians’ adoption of Vurt technology in *Nymphomation* and *Pollen*. Nonetheless, this shift echoes Gough’s overarching argument that Noon’s Vurtual reality conveys the “notion that contemporary technophilia cannot afford to ignore accountability,”166 a point which she clarifies by quoting from Pat Cadigan’s cyberpunk novel *Synners*: “[a]ll *appropriate* technology hurt somebody. ... Nuclear fission, fusion, the fucking Ford assembly line, the fucking airplane. ... Every technology has its original sin.”167

In *Nymphomation*, in addition to the explicit risk of “winning” the joker bone, the Mancunians’ interaction with AnnoDomino’s “corporate cyberspace”—enabled by the computational organic-mechanic technology produced by the Sayer-Malthorpe creature—implicitly “risks” permanently altering the way the Mancunians relate to each other and their environment. As already noted, AnnoDomino’s lottery and advertisements are constructed as promoting the value of wealth to the exclusion of all other values. This “virtual” system of value engenders a fierce individualism among the Mancunians, who become increasingly hostile towards each other every time they fail to win the lottery, and results in their disregard for the environment, which becomes littered with losing lottery tokens. That is, *Nymphomation* suggests that in exchange for the promise of wealth, the Mancunians risk losing their inclination and ability to care about and for each other and their environment.

In *Pollen*, the implicit “risk” associated with interacting with Vurtual technology is imagined as having a much more catastrophic effect upon society and the environment. As already noted, the Vurt-story character Persephone introduces the Vurt-pollen spores into reality, which enables plants and animals to mate and reproduce. The resultant Vurt-real hybrid environment is uninhabitable: Vurt-pollen induces a hayfever that kills the novel’s characters and causes the city’s plants to grow exponentially, converting Manchester into an unliveable post-natural jungle. Here, as in *Nymphomation*, the Mancunians are shown to be complicit in their own demise and the demise of the city because of their ready and uncritical acceptance of the efficiencies

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166 Ibid., 121.
167 Pat Cadigan qtd. in ibid.
and securities offered by Xcab: a company which, like AnnoDomino, is run using Vurt technology. In short, in exchange for the convenience of Xcab’s services, the Mancunians risk environmental catastrophe. The ethical implications that are associated with Vurt’s exchange rates construct the Vurt and the “real” as interconnected—what happens in the Vurt has repercussions in the “real” and vice versa, frustrating the possibility of understanding Vurtual reality as an escape from “reality.”

**Vurt’s Narrative Basis**

In a soliloquy at *Pollen*’s climax, the Vurt-story character John Barleycorn, who is the mastermind of the Vurt-pollen attack, proclaims:

> I do believe this blood-hued elixir [red wine] to be the first example of Vurt. Only through its transformation could your ancestors imagine another world beyond the everyday. From the gulp of wine flowed the books and the pictures, the cinema, the television—all the ways of capture. And with Miss Hobart, and the feather, the Vurt, and the shared dream of it all, now we live on. The tale has turned. The stories keep growing, even when you’re not telling them. We no longer need to be told. And one day we will tell ourselves. The dream will live. This is why I brought the fever to your world. I want a grip on the world. I want to *infect you.*

Unlike Gibson’s cyberspace, which emerges from the “data abstracted from the banks of every computer in the human system,” Vurt is constructed as another example of the ability to generate and record stories with the help of technology—Vurt is part of a historical trajectory, beginning with oenology (the science and study of wine making), which helps people to make-up fictional worlds, and ending with the technology of Vurt, which helps people to record and share dreams. Vurt is thus represented as a dream-story space built upon narrative and discursive, rather than binary, “codes.”

Vurt’s narrative basis inclines the novels themselves to be read as a “technological interface” between the reader’s reality and the virtual space their prose invites the reader to imagine. This metafictional strategy contributes to Vurt’s intervention in the “trope of transcendence” in two ways. Firstly, it sets up a parallel that, on the one hand, aligns the reader’s reality with the character’s fictional reality,

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and on the other hand, aligns the imaginary space evoked by the novel with the virtual story-space of the Vurt.\textsuperscript{170} Hence, rather than serving as an escape from the hardships of their own reality (a charge often levelled at pulp fiction and popular culture texts more generally),\textsuperscript{171} the novel highlights and invites readers to reflect upon the relationship between the novel and their lived reality.

Secondly, the stylistic and thematic deployment of this metafictional strategy, especially in \textit{Pollen}, can be read as critiquing an over-emphasis upon the notion of reality as being \textit{constructed in} discourse. Featuring among the recorded dream-stories, which are available for the users of Vurt to participate in, are Greek myths, English folktales, popular children’s stories and scenes from Hollywood films. Indeed, when discussing his use of myth in \textit{Pollen}, Noon notes that he decided to:

\begin{quote}
make \textit{Pollen} about ... how human beings are constantly dipping into the myth kitty [Philip Larkin’s disparaging term for writers who appropriate myths in their stories], we’re constantly excited by these stories that were created thousands of years ago, and the Vurt world [started] to change in my mind into this story-space, almost, where all the characters that we’ve ever made up are now alive, and they’re out there [in the Vurt].\textsuperscript{172}
\end{quote}

In other words, Noon appropriates existing stories to generate a “new” story.\textsuperscript{173} This is a technique commonly used in postmodern fiction:\textsuperscript{174} indeed, Noon’s style in his Vurt novels features several techniques associated with postmodern literature. These include the appropriation and pastiche of historical and literary figures from high and low culture, the juxtaposition of a complex stream-of-consciousness style with a pulp detective fiction structure, and the use of multiple, unreliable narrators. Such strategies blur distinctions between the fantastic world of the text and the real world of the reader by revealing the ways “reality,” like a fictional narrative, is constructed and mediated through language.\textsuperscript{175} Reality is “exposed” through such stylistic techniques as \textit{just one} version of reality rather than \textit{the one and only} reality.

\textit{Pollen’s} postmodern narrative style thus seems to be at odds with the ecocritical perspective I will employ in this thesis. Ecocritics have tended to treat

\begin{footnotes}
\item[172] Noon qtd. in Barrett, “The Lucidity Switch,” 47.
\item[173] Keen, “Feathers Into an Underworld,” 104.
\item[175] McHale, \textit{Constructing Postmodernism}, 256.
\end{footnotes}
theories and texts that highlight ontological uncertainty with suspicion: as some ecocritics argue, they work to conceal the physical reality of a rapidly deteriorating environment, and perpetrate its continued despoliation by apolitically legitimating all versions of reality. However, *Pollen* critiques over-emphasising the notion that reality is constructed in discourse through its plot: the novel associates the dissolution of the boundary between the real and the fictional with environmental catastrophe, which will be discussed in detail in Chapter Two (Section Two, under the heading “Flower Map and Dodo Beetle”). Significantly, I will not argue that *Pollen* advances a politics that dismisses the impact of discourse in shaping and mediating the ways humans experience and relate to physical reality; rather, I will argue that the novel can be read as cautioning against an over-emphasis of this fact. In its vision of eco-catastrophe being caused by stories and discourses that can no longer be controlled and have become more powerful than their human authors, *Pollen* advances the notion that the immaterial (stories and discourse) and the “real” (the physical environment) are not separate, but interconnected. In summary: the organic origin, material exchange rates and narrative basis of Vurt resists it being read as an escape from the problems of a degraded physical reality. Instead, these three peculiarities of Vurt emphasise Vurtuality and “reality” as interconnected, which challenges, rather than reinforces, the logic of reason/nature dualism undergirding environmental despoilment.

Section Four: Ecological Thinking

Thus far I have argued that the ecological dimensions of *Nymphomation* and *Pollen* play out in several ways. I have noted that they emerge through the novels’ evocation of Manchester’s industrial and post-industrial history. I have suggested that they become striking at this historical moment because of the current prevalence of environmental discourses in various public arenas. I have argued that they can be seen in the novels’ intertextual re-working of cyberspace. Moreover, I have put forward the notion that they arise in the way the novels connect their representations of toxic and despoiled landscapes to the values and attitudes engendered by the discourses of post-

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industrial capitalism and technological efficiency (especially how these discourses inscribe the relation between the human and the nonhuman). In other words, I have foregrounded the ways the novels’ ecological dimensions arise out of the connections depicted in the fictional worlds they represent, and between these worlds and the various physical realities with which they intersect.

This summation of the discussion so far aims to highlight the centrality of connections—or more properly interconnections—as a motif in this thesis. I see interconnection as the preferable term because it not only describes the coming together of phenomena, but also suggests the transgression of the borders that divide phenomena into separate entities. Chief among the borders interrogated are those between the physical and immaterial, and between the human and nonhuman.

On the one hand, it seems redundant to stress such interconnections when so much scholarship in so many fields already points to and works with the idea that the immaterial and the physical mutually impact upon each other. For example, the science of epigenetics studies the effect environmental factors have upon the chemical switches that regulate gene expression—environmental factors such as, stress and behaviour that are informed by the subject’s social situation;\(^\text{177}\) feminism, queer studies, and race studies demonstrate the impact of discourses on individuals’ lived realities; and it is the stock and trade of advertisers and marketers to exploit the power of symbols to persuade people to undertake particular actions (typically, to buy something).\(^\text{178}\) However, on the other hand, given the limited changes to current industrial and consumer practices, despite the dire prognostications of climate scientists, it seems that in regards to the relation between culture and the physical environment, such interconnections still need to be stressed (and researched) more.

Until now I have invoked Suvin’s notion of the oscillation loop between reader, text and reality as a framework for articulating the various interconnections I have noted between immaterial phenomena (representation, discourse, ideas, virtual reality and fictional worlds), and physical phenomena (despoiled landscapes, organic and inorganic material, readers and the physical environment). However, my particular focus on the significance of such interconnections for the physical environment is indebted to the work of another group of theorists: Timothy Morton in *The Ecological\(^\text{179}\)*


\(^{178}\) As science journalist Laura Spinney reports, in efforts to get a competitive edge, some companies have recently started to enlist the skills of ethnographers in order to help them study and predict, with greater precision, which symbolic associations are most likely to produce physical (re)actions in the targeted consumer group. Laura Spinney, "Selling Sensation: The New Marketing Territory," *New Scientist*, 18 September 2013, 28–9.
Thought, Lorraine Code in Ecological Thinking, Gregory Bateson in Steps to an Ecology of Mind, and Felix Guattari in The Three Ecologies, Chaosmosis and “Remaking Social Practices.” As the titles suggest, each of these authors engages with the scientific notion of ecology, which studies the “relations of organisms to one another and to their surroundings.” Ecology examines, in other words, the ways organisms and their environments are interconnected and the effects these interconnections have upon organisms and their environments.

The monographs and essays of all four aforementioned theorists are works of philosophy and literary and cultural theory, not science. As such, these writers are not doing ecology, which would require them to investigate the physical-chemical-biological processes that order the “natural world,” and would involve them applying the knowledge and skills of disciplines such as biology, physics, mathematics and computer modelling to analyse and predict the complex interactions and processes that characterise ecosystems. Instead, these authors embrace the idea of ecology as a point of view, so to speak: one that emphasises, firstly, the notion of interconnectedness, and secondly, the physical world. The former is taken up by the four theorists as an alternative to an array of conceptual separations that they argue are the continued legacy of Enlightenment thought in the west (the details of which will be discussed below), while the latter is taken up, particularly in the case of Morton and Guattari, as a way to (re-)insert or (re-)emphasise the physical world into philosophy and literary and cultural theory, domains which are often thought to be limited to the realm of intangible ideas. The interconnections these authors consider and interrogate are those between cultural discourses and physical realities. Put another way, they study the cultural and/or conceptual roadblocks that stand in the way of our apprehending the connection between humans and “healthy” ecosystems, or that make humans resistant to undertaking actions to improve “ailing” ecosystems.

Interestingly, with the exception of Guattari, who references Bateson, these works are not in direct conversation with each other. Rather, their ideas about culture

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179 Timothy Morton, The Ecological Thought (Massachusetts: Harvard University Press, 2010).
180 Code, Ecological Thinking.
184 Ibid., 4. Ecologists Ricklefs and Miller define “nature” as “the set of all living things, the physical conditions under which they live, and the interactions among organisms and between organisms and the physical world.” Ibid., 3.
and ecological interconnectedness respond to the prevailing norms of their respective scholarly disciplines: Morton works from literary theory; Code from feminist epistemology; Bateson from cybernetics; and Guattari from psychotherapy, semiotics and philosophy. Nonetheless, despite the differences that exist between their different methods and objects of study, their common use of ecology as a springboard from which to explore interconnections between the human and nonhuman, and the immaterial and the physical, leads to their work advancing a notion that, when taken together, can be called, for convenience’s sake, ecological thinking.

Put simply, ecological thinking seeks to elucidate the ways dualisms such as mind/body:environment, culture/nature, human/animal:nature, representations/ideas:physical environment, and subject/object are interconnected in order to re-orientate the conceptual frameworks that guide the ways humans understand their relation to the more-than-human. As such, despite the apparent privilege that the term “thinking” is accorded through its appearance in the titles of these theorists’ work, the theories themselves seek to problematise rather than maintain straight-forward distinctions between thought and action, representation and reality, and the immaterial and the physical. Indeed, the notion of ecological thinking seeks to highlight the ways thought and action, representation and reality are mutually constitutive in a world that contains sentient beings capable of re-presenting it in words. Of particular interest for this thesis are the ways ecological thinking explicitly combines critical theory and/or cybernetics with environmental concerns, which makes this theoretical perspective another important framework informing the readings of Nymphomation and Pollen presented in this thesis. By way of introducing ecological thinking, I will offer a selective outline of each theorists’ ideas on the topic, as well as their significance for my understanding of Nymphomation and Pollen.

Timothy Morton’s The Ecological Thought

Morton’s The Ecological Thought explores the impact of conceptually separating Nature as a space that is distinct from Culture, which he suggests interferes with humans’ ability to adequately negotiate the anthropocene. One strand of Morton’s argument is that since the modern era the notion that Nature and Culture are separate

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A similar point can be made regarding the prevalence of dualism in Plumwood’s Feminism and the Mastery of Nature. Plumwood focuses upon dualism in order to highlight how it works to subtly structure and organise dominant western notions of the relation between master and slave (for example, human and nonhuman), and she does so in order to call into question such “naturalised” conceptions.
and distinct has been dominant in the west. Within this framework, Nature is characterised as an "ideal image, a self-contained form suspended afar, shimmering and naked behind glass like an expensive painting."\(^{186}\) It was, and is, a vision of Nature that evokes "a time without industry, a time without 'technology,' as if we had never used flint or wheat."\(^{187}\) Following Morton, henceforth I will use upper-case "N" Nature to refer to this idealised notion of Nature, which is associated with pristine wilderesses and bucolic countrysides, and never with urban areas or city centres.\(^{188}\) According to Morton, one of the problems with this concept of Nature is that it is always "'over yonder,' alien and alienated ... we can never actually reach it and touch it and belong to it."\(^{189}\) In contrast to this reified Nature, Morton posits ecology. Morton argues that ecology challenges the concept of Nature because it "shows us that all beings are connected."\(^{190}\) In other words, for Morton, ecology's focus on interconnection undermines the notion that Nature can somehow be held apart from and remain untouched by human culture. Morton argues that one problem with maintaining the fiction of Nature (as a-thing-separate-from-Culture) is that it impedes humans' ability to apprehend ecological interconnectedness.\(^{191}\) For example, Morton cites an incident at Lakewood, Colorado, where "residents objected to the construction of a solar array in a park in 2008 because it didn't look 'natural.'"\(^{192}\) In this case, the notion of Nature as non-technological impeded the use of a technology that promises to help preserve the physical environment. Morton's point is that for the sake of Nature, "nature" is at stake.

To meet the environmental challenges of the anthropocene, Morton calls for the concept of Nature to be dispensed with altogether, and an ecological understanding of interconnectedness to be instituted in its place: what he calls ecology without Nature.\(^{193}\) For Morton "the ecological thought" is a "practice and a process of becoming fully aware of how human beings are connected with other beings—animal, vegetable, or mineral."\(^{194}\) And it involves becoming able to conceive of what he calls "the mesh," a term which describes "the interconnectedness of living and non-living things," and "consists of infinite connections and infinitesimal differences."\(^{195}\) Shifting the conceptual terrain means that "nature" is not only found "out there" in the "wild," but

\(^{187}\) Ibid.
\(^{188}\) Ibid., 3.
\(^{189}\) Ibid., 5.
\(^{190}\) Ibid., 7.
\(^{191}\) Ibid., 4–5.
\(^{192}\) Ibid., 9.
\(^{195}\) Ibid., 28, 30.
also “here” within the suburbs of civilisation and the bodies of humans, and the discourses that articulate how they are interconnected. Conversely, “culture” is not only found here in “civilisation,” but also “out there” in the (Romantic and romanticised) images and philosophies that frame how “nature” is thought about and experienced, as well as in the more concrete impacts of modern culture on “nature” sites—for example, acid rain that deposits industrial effluent on “nature” reserves. Morton’s ecological thought thus involves thinking past the separation of Nature from Culture to apprehend and attend to the ways living and non-living things are interconnected.196

Following Morton’s elucidation and deployment of ecology in The Ecological Thought, I refer to Nymphomation’s and Pollen’s “ecological” dimensions, as opposed to, for example, their “natural” dimension. As already noted, the fictional worlds of Nymphomation and Pollen are marked by landscapes despoiled or made toxic by human actions, and are almost entirely bereft of representations of spaces that resonate with the concept of Nature. It is worth noting that Pollen does offer one representation of Nature, Alexander Park, “a brooding expanse of trees and shadows” that exists within, but is set apart from, the city.197 However, as soon as Alexander Park is introduced into the narrative, its status as an inner-city respite from civilisation is immediately corrupted: the Vurt-story characters use the flowers and trees of Alexander Park as the devices to deploy their deadly Vurt-pollen attack. That is, Nature as separate from “culture” is a fiction that Noon’s fiction does not entertain. Instead, I suggest that one way Nymphomation’s and Pollen’s ecological dimensions can be perceived is through their representations of how characters negotiate and adapt to anthropogenic environments, where no spaces are untouched or unaffected by human action.

Morton’s particular use of the term “ecology” is significant for this thesis for another reason. Morton is aligned with the ecocritical movement; however, his deployment and development of ecology differs from the way the term has typically been employed in ecocriticism, especially in early ecocritical scholarship.198 In The Truth of Ecology, Dana Phillips critiques various early ecocritics for their rehearsal of the popular, yet old-fashioned, belief that the science of ecology supports “values such as balance, harmony, unity, purity, health, and economy.”199 Phillips notes that while

196 Ibid., 28.
197 Noon, Pollen, 25.
metaphors consistent with such values guided the thinking and experimentation of early ecologists, the results of ecological experimentation did not confirm their existence in natural processes.\(^{200}\) Rather, ecologists have found that “random change is ‘intrinsic and natural at many scales of time and space in the biosphere.’”\(^{201}\) Morton, in line with more recent ecological research, and by way of a conversation with evolutionary theory, explicitly stipulates that his ecological thought resists notions of harmony, unity, beauty,\(^{202}\) stability and closure,\(^{203}\) and instead takes its lead from notions of adaptation, change, complexity and chaos theory, fractal patterns in nature, and “Mutation, Mutation, Mutation.”\(^{204}\) Morton’s ecological thought suggests that balance, harmony, unity, beauty, stability and closure are concepts aligned with Nature; whereas mutation, change, adaption, open-endedness and complexity are typically excluded from Nature. Therefore, Morton’s concept critically engages with strands of ecocritical scholarship by advocating for ecological thinking to displace the idea of Nature.

Morton’s development of the notion of ecology, in contrast to the use of the concept by early ecocritics, resonates with the kind of ecological evocations present in *Nymphomation* and *Pollen*. Random mutation is regularly featured in the novels and is shown to be born out of the interaction of organic, inorganic and Vurtual entities. However, I also argue that the novels imagine random change, adaption and evolution as catalysts for positive change. For example, mutation is deployed in support of the novels’ aforementioned championing of racial and ethnic diversity: in *Nymphomation*, Jazir’s mutation into a human-blurbfly hybrid after being infected with mutagenic material enables him to overthrow the AnnoDomino Company; and in *Pollen*, Sibyl’s hard-won love and compassion for her mutant “zombie” son enables her to overthrow the Vurt-story characters’ attack on Manchester. In other words, mutation, and in particular mutation at a genetic level, is associated with mutation at a social level—the dethroning of otherwise homogeneous, self-reinforcing and oppressive systems.

Nonetheless, I do not read *Nymphomation* and *Pollen* as advancing genetic determinism. It is not the case that genetic mutation is inscribed as the cause of social change; rather, genetic mutation is shown to contribute to social change (and conversely, social systems are shown to contribute to genetic mutations). That is, the novels assign significance to mutation, adaption and evolution, and highlight their

\(^{200}\) Ibid.
\(^{201}\) Ibid., 79.
\(^{203}\) Ibid., 5.
\(^{204}\) Ibid., 60–8.
occurrence in both physical entities and social organisations. In my analysis of the novels, I will employ the aspects of ecological science that Morton draws upon in *The Ecological Thought* because they offer a productive lens through which to engage with the novels' ecological dimensions, which I argue can be seen in their depictions of post-Natural landscapes, as well as their preoccupation with mutation and adaption.

Despite the usefulness of Morton's ecological thought for establishing *Nymphomation*'s and *Pollen*'s ecological dimensions, as well as for situating my readings of the novels within ecocriticism, my arguments depart from some of the claims that Morton makes for "the ecological thought." In particular, Morton distances "the ecological thought" from the "sticky web of 'embedded and embodied' ideology—beliefs that we exist in a 'lifeworld'"; according to Morton, such "ideas impede—sometimes they even encourage us to feel proud about impeding—the big picture [of ecological interconnectedness]."

While I do not read *Nymphomation* and *Pollen* as engaging with the Romantic notion of the *lebenswelt*, I do read the novels as resonating with Donna Haraway's notion of "situated knowledge," in which location and embodiment are central. Via Lorraine Code's reading of Haraway in *Ecological Thinking* (a point which will be elaborated below), I see the novels as endowing positionality and locatedness as integral to some characters' ability to apprehend and negotiate "big picture" understandings of ecological interconnectedness.

Furthermore, the novels' setting in Manchester resists their engaging with "the ecological thought's" embrace of "totality"—"everything is connected to everything." I have argued in this Introduction that Noon's fictional Manchester is connected to the historical Manchester and other genre fiction via intertextual refractions, and I have indicated that the fictional city is represented as connected to spaces and times beyond its limits within the narrative. However, within the context of the fictional worlds represented in *Nymphomation* and *Pollen*, the primary action is exclusively limited to Manchester and its immediate surroundings. Morton's ecological thought, on the other hand, resists conceptual and contextual limits entirely; they are associated with the tendency to "box in" and reify—"thinking big [part of 'the ecological thought'] doesn't mean that we put everything in a big box. Thinking big means that the box melts into nothing in our hands." However, Manchester, as a contextual limit, is of central importance to my reading of *Nymphomation*'s and *Pollen*'s ecological

205 Ibid., 118.
dimensions, which employs the notion of feedback loops to reveal the impacts of discursive inputs (the AnnoDomino Company in *Nymphomation* and Xcab/Vurt-story characters in *Pollen*) on physical outputs (despoiled and degraded environments), and vice versa. Setting in place contextual limits, while arbitrary, nonetheless enables (provisional and partial) knowledge to be produced. Also, such limits need not impede apprehending the “big picture” as Morton suggests. As Code argues in *Ecological Thinking*, if the provisionality of contextual knowledge is emphasised and analogies between contexts are responsibly traced (by which Code means carefully accounting for the ways contexts are both similar and different), then local, embodied knowledge can be the springboard from which to apprehend and attend to “big picture” interconnections.

**Lorraine Code’s Ecological Thinking: The Politics of Epistemic Location**

In *Ecological Thinking*, Code is concerned with developing a theoretical framework that articulates how subjects can know responsibly and well,\(^{210}\) which she argues is “an epistemology capable of engaging with particularity ... [that encourages the knower] to assume responsibility for what and how he/she claims to know.”\(^{211}\) In developing this project, Code draws upon the notions of ecological interconnectedness, imaginative knowing and situated knowledge, and contrasts these ideas and practices with the idealised objective knowledge that positivistic science (is commonly understood to) produce. Like Morton’s concept of the ecological thought, Code’s ecological thinking rebukes conceptual separations and instead highlights interconnections; however, unlike Morton, Code does not embrace ecology as synonymous with profound interconnection and totality. Instead, she foregrounds the ways subjects are enmeshed within multiple, overlapping socio-physical contexts, and argues that, by attending to contextual particularities, subjects can make responsible and ethical decisions that take into account and advocate for human and nonhuman others. Code’s combination of situated knowledge and imaginative knowing with ecological interconnectedness productively frames my reading of how some characters in *Nymphomation* and *Pollen* come to feel responsible for and advocate on behalf of the (radically) nonhuman other, despite their being embedded within dominant discourses that dissuade this kind of knowledge and advocacy.


\(^{211}\) Ibid., 228–9.
Code argues that the subject of liberal humanism, together with its exemplary expression in the epistemic subject of positivistic science, inculcates a separation between the subject who knows and the object “he” knows about:

[h]e is a dislocated, shadowy figure not merely by accident but by design, for the regulative assumption is that it would detract from epistemology’s defining tasks to claim greater epistemic significance either for the specificities of his location or for the material, social-political, ecological, affective particularities that prompt, engage, or thwart his knowledge-making activities[.]. ... For epistemological purposes, he is and should be solitary, self-reliant, and rational, disconnected from accidents of embodiment, history, and place—both physical-geographical and social—and from the distractions of human relationships, affect, and personal, social or cultural history. Evidence of his having yielded to the influence of such distractions risks discrediting his claims to know, compromising his credibility.212

The knowledge that the liberal humanist subject produces/discovers is endowed with authority in part through the appearance of it having been uncovered by a knower who is entirely objective—a disembodied and decontextualised mind (an idealisation that cyberspace’s disembodied virtual subject parallels).

For Code, one problem with the idealised epistemic subject of positivistic science is that it perpetuates a hierarchical relationship between knower and known. The knower is conceptually positioned outside of and separated from the human and nonhuman objects s/he studies, and is therefore neither able to be affected by nor compelled to be responsible for them. Within this framework, subjects and “[o]bjects remain inert in and unaffected by the knowing process which is directed toward achieving knowledge of how to manipulate, predict, and control [the object’s] behavioural pattern.”213 In other words, the separation of knower (subject) from known (object) contributes to their relationship being characterised by mastery and control: because the subject-knower (conceptually) exists apart from the object-known, “he” is in a position to master and control the object without the threat of being changed or manipulated “himself.”

As a point of clarification, Code distinguishes between men/man—those embodied members of the population possessed of X and Y chromosomes, and Man/’man’—a cultural framework that disproportionately and differentially confers power upon some men, but which is itself not an innate quality of being an embodied

212 Ibid., 207–8. Emphasis in original.
213 Ibid., 41.
man. Code claims the latter to be a “fictive creature ... that has existed only in narrowly conceived theoretical places abstracted and isolated from the exigencies and vagaries of human lives.” Despite His dubious physical existence, Code claims that Man exercises great discursive power as the “standardised but barely acknowledged epistemic subject.” That is, He is culturally empowered to produce and arbitrate what counts as “real” knowledge (and is therefore central to the policies, practices and technologies built upon this knowledge).

It is also worth noting that Code acknowledges that her characterisation of positivistic science and its epistemic subject is more concerned with their cultural legacy as epistemic standards—that is, the commonly held belief that scientists are objective and produce objective knowledge—rather than with critiquing contemporary scientific methods and objects of study. Nonetheless, given that scientists (including ecologists) exist within culture as much as anyone else does, their understanding of what valid knowledge is and how it is obtained is still informed by the “idealised versions of a hybrid, depersonalised objectivism of Baconian, Cartesian, and positivistic lineage [that continues] to exert a pull on regulative epistemic principles, even in theories committed to modifying or evading its reductive excesses.” Code’s ecological thinking is aimed at displacing this legacy and the cultural influence it continues to exercise.

Code looks to Rachel Carson’s ecological scientific practice as an alternative epistemic framework that overcomes the separation between knower and known. Code argues that Carson’s practice exemplifies Donna Haraway’s “situated knowledge”: her analysis of Carson’s scientific method demonstrates how, for ecological science:

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214 Ibid., 203.
215 Ibid., 207.
216 Ibid.
217 Lorraine Code, “Thinking about Ecological Thinking,” Hypatia 23, no. 1 (2008): 190. Indeed, were Code to be claiming to do the latter, even a non-scientist such as myself could point to numerous scientific studies reported in media, such as New Scientist, that reveal her characterisation of science to be a straw man. However, as she unequivocally argues in her response to critiques of Ecological Thinking: “although I elaborate the content of my working conception of ecology from readings in ecological science[,] ... I am at once acknowledging my lack of the scientific literacy required to do philosophy of science well and proposing that the epistemic domain exceeds the reach both of science and of ‘mainstream’ philosophy of science.” Ibid. In other words, she is concerned with the discursive effect and legacy of positivistic science for what counts as valid knowledge more generally.
219 In particular, Code foregrounds how Carson’s ecological scientific method incorporates knowledge from laboratory analysis with knowledge derived from fieldwork, including: Carson’s use of analogy; non-expert observer testimony; cross-disciplinary mapping techniques; and detailed observation of the ways objects studied in laboratory settings interact with their native habitat. Ibid., 26–42.
[s]ituation is itself a place to know whose intricacies have to be examined for how they shape both knowing subjects and the objects of knowledge; how they legitimate and/or disqualify knowledge projects; how they are constituted by and constitutive of entrenched social imaginaries [discourses].

In other words, Code sees Carson's ecological science as embracing, rather than denying, interconnections between knowers and their socio-physical situations as the basis of valid knowledge. For Code, this is a defining characteristic of ecological thinking:

[in ecological thinking, knowers are repositioned as self-consciously part of nature[…] … [Ecological thinking] aims to reenlist the successes of empirical science together with other kinds of knowledge reflexively and critically, in projects committed to understanding the implications and effects of such ways of knowing and acting, regardless of short-term costs to “efficiency,” and capable of seeing nature and human as reciprocally engaged, intra-active. Thus it conceives of human interventions throughout the world, both physical and social, as requiring sensitivity to and responsibility in relation to specificities of diversity and detail, placing respect above mastery, preservation before control, understanding for what is and has been before predictions of what might be.

According to Code, emphasising knowers as situated within, rather than separated from, the socio-physical ecologies they study encourages them to consider the ways their lived experience influences how and what they know, to acknowledge and negotiate the partiality of the knowledge they produce, and to interrogate how the process of “coming to know” shapes their own subjectivity (and how they “see” and relate to the human and nonhuman other they “come to know” about). Code’s “ecological subject” is thus located within—responsible for and affected by—the socio-physical ecologies about which s/he seeks to generate knowledge.

Additionally, Code cites imagination—typically excluded as a valid basis for the generation of knowledge in positivist epistemology—as an indispensable tool in the process of knowing responsibly and well. On the one hand, imagination can help subjects to perceive a situation from the perspective of someone or something else; on the other, it can help subjects to avoid making universal claims by encouraging them to perceive the effects and importance of contextual differences:

220 Ibid., 40. Emphasis in original.
221 Ibid., 32.
222 Ibid., 5.
Imagination [helps to make feasible attempts] to think one’s way into the situations of differently situated Others, including ... the marginalised, the otherwise damaged; and not just for the sake of it but to attempt to undo some of the damage enacted by often-coercive presumptions of sameness.224

For Code, imagination helps to enable a different way of knowing: one that adopts the positionality of the other, but that at the same time acknowledges that this understanding is necessarily incomplete. Furthermore, Code argues that this kind of imagining—from the perspective of the other—carries the potential to modify dominant discourses because of its capacity to transgress, challenge or destabilise governing norms.225 In other words, imagining facilitates the recognition that the dominant worldview (which frames the knowledge and practice of the empowered knower) is not the only possible worldview. Such imaginative insights open the possibility of knowing and doing in ways that are (hopefully) better for marginalised human and nonhuman others.

Situated knowledge and imaginative knowing I argue, are key to understanding how Nymphomation’s and Pollen’s hybrid characters—Jazir in Nymphomation and Sibyl in Pollen—become able to empathise with and act on behalf of the nonhuman other, understandings and actions that are associated with environmental restoration in the novels. Indeed, Jazir’s and Sibyl’s hybrid subjectivities are highlighted as the basis of their capacity for empathy through their respective juxtapositions with conspicuously non-hybrid and objectionable characters: Nigel Zuze in Nymphomation, who is a fierce white supremacist, and Columbus in Pollen, who is constructed as an almost purely disembodied “mind.” Nigel and Columbus function as textual markers of subjects who occupy centralised positions within the dominant discourses of Nymphomation’s post-industrial capitalism and Pollen’s technological efficiency. Through their construction, the novels suggest that, from their privileged standpoint, Nigel and Columbus are unable to emphasise with the marginalised other, who is invisible to them. By contrast, because of the hybrid status their embodiment confers upon them, Jazir and Sibyl are represented as “seeing” their realities “from the margins”: this allows them “to see what is ordinarily invisible” to those in the centre, a hallmark of situated knowledge.226 That is, Jazir’s and Sibyl’s disempowered standpoint encourages them to be aware of their positionality because it places them at odds with discursive norms.

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224 Ibid., 207.
225 Ibid., 213.
226 Ibid., 118–9. See also Haraway, Simians, Cyborgs, and Women, 342.
Notably, I do not understand the novels as suggesting that Jazir’s and Sibyl’s marginalised hybrid subjectivities make them “naturally” inclined to empathise with characters who are (radically) nonhuman others. Rather, I argue that their situated knowledge places them in social situations (and also physical locations) that allow them to “see” and encounter the (radically) nonhuman other in ways that are unavailable to the characters who are constructed as possessed of normative subjectivity and who occupy centralised, privileged positions. Importantly, Jazir’s and Sibyl’s encounters with the radical nonhuman other are represented as including interactions that are tactile and physical. It is their physical encounter with the (radically) nonhuman other, and not their hybrid subjectivity per se, that ultimately is depicted as prompting their “imaginative knowing” of this other. So while the process by which Jazir and Sibyl come to know and advocate for the radically nonhuman others they encounter resonates with Code’s discussion of imaginative knowing and the kind of “responsible” insights into differently situated others it affords, Nymphomation and Pollen also accord great significance to tactile and emotional connection between knower (Jazir and Sibyl) and known (radically nonhuman other). In other words, in Nymphomation and Pollen, connections made via imaginative knowing are enabled and bolstered via physical connections. Nonetheless, it is Jazir’s and Sibyl’s imaginative and somatic knowing of the (radically) nonhuman other that provides them with the tools and the desire to advocate on behalf of the other—actions that are associated with the amelioration of environmental problems in the novels. Therefore, following Code, I see the novels as embracing imagination and analogy as ways of forging connections between differently situated others, in order to bring about improved social and environmental conditions.

Finally, one more important point of consonance between Code’s ecological thinking and my reading of the novels is the physical transformation that Jazir and Sibyl undergo as they come to know the (radically) nonhuman other. Reading these characters’ physical transformations through Code’s ecological thinking, I see the novels as literalising the notion that “coming to know” the other is not a neutral process, but one that actively shapes the knower.

227 I have inserted the modifier “radically” to indicate that in Nymphomation and Pollen the degree to which characters are constructed as othered and marginalised varies. Jazir and Sibyl are also others within the dominant discourses of their respective fictional worlds; however, they still occupy a (marginalised) place within the category of human/post-human. Radically othered characters, by contrast, are shown to be excluded from the category of human altogether, and as such they are accorded no rights or voice at all. I read Nymphomation and Pollen as suggesting that marginalised characters are well positioned to “see” and advocate for the rights of radically othered characters.
Nonhuman Other: Alien Encounters and Strange Strangers

Given the centrality of the nonhuman other to my reading of Nymphomation's and Pollen's ecological dimensions, especially the novels' ecologically-oriented ethics, here I will pause to situate the notion of the nonhuman other within the field of science fiction literary criticism. Indeed, one strand of my argument will focus upon how these novels represent encounters between human and nonhuman others in a way that, on the one hand, problematises the conceptual boundary separating self from other, and on the other hand, connects such problematisation with an ecologically-oriented ethics. This ethics suggests humans should re-conceptualise their relationship to the nonhuman in terms of shared agency, rather than separateness and domination; this will entail advocating for the welfare of the nonhuman other in order to maintain climates that are habitable by a multitude of species.

228 In philosophy, Emmanuel Levinas' phenomenological theory of the face-to-face encounter with the other is influential in the field of ethics and the other. See Totality and Infinity: An Essay on Exteriority (Pittsburgh: Duquesne University Press, 1969) for his early writings on the topic. It is beyond the scope of this thesis to fully engage with this extensive body of knowledge, but an encyclopaedic account of Levinas' ethics suggests how his ideas cast a shadow over this thesis via their influence upon the work of theorists whose concepts I engage with directly. Levinas' ethics are:

- an interpretive, phenomenological description of the rise and repetition of the face-to-face encounter, or the intersubjective relation at its precognitive core; [that is], being called by another and responding to that other. If precognitive experience, that is, human sensibility, can be characterized conceptually, then it must be described in what is most characteristic to it: a continuum of sensibility and affectivity, in other words, sentence and emotion in their interconnection. Bettina Bergo, “Emmanuel Levinas,” in The Stanford Encyclopedia of Philosophy, ed. Edward N. Zalta, Spring 2014, http://plato.stanford.edu/archives/spr2014/entries/levinas/.

As will become apparent in Section Four of Chapter One, under the heading “Somatic Connections and Corporeal Connections” and Section Four of Chapter Two, under the heading “Zombies,” I argue that Nymphomation and Pollen associate touch (a precognitive experience) with the capacity to forge ethical connections between self and nonhuman other. The effect of connecting in this way is depicted as having profound, broad-reaching and positive socio-physical impacts. In particular, I will enlist the work of Rosalyn Diprose, a feminist theorist whose work draws upon Levinas' phenomenology. Corporeal Generosity: On Giving With Nietzsche, Merleau-Ponty, and Levinas (Albany: State University of New York Press, 2002). It is also worth noting that, in The Ecological Thought, Morton draws upon Levinas in his notion of the strange stranger, a concept that he ties to the apprehension of the ecological interconnectedness of the “mesh.” The Ecological Thought, 2010, 47. This is another indirect way Levinas' work finds expression in this thesis. Additionally, Morton notes that while Levinas is not primarily concerned with the nonhuman other, “[o]n several occasions, [he] leaves the door open for nonhuman beings, explicitly or implicitly.” The Ecological Thought, 2010, 144. This is significant insofar as Diprose, like Levinas, is not overly concerned with the nonhuman other; nonetheless, her ideas, also like Levinas', are amenable to being extended to include the nonhuman, as my argument under the heading “Somatic Connections and Corporeal Connections” will demonstrate.
In science fiction, the nonhuman other regularly appears in the form of an alien. The ability of this figure to function as a point of philosophical and ethical reflection has been interpreted by science fiction critics in ways that tend to elide its capacity to signify the nonhuman, rather than human, other. For example, some critics argue that aliens in SF are only more or less sophisticated disguises of disenfranchised and marginalized human groups, such as women, minorities, or gays, and [such critics] see the genre’s critical function as writing ‘the narrative of the same, as other.’

This interpretation sees aliens as analogues for human others; bug-eyed aliens, for example, are understood as representations of humans, who, for social and economic reasons, have been relegated to the category of the other. Neglected in such an interpretation is a consideration of bug-eyed aliens as representations of terran insects/animals (nonhuman others), which in turn eschews the possibility of reading aliens as a way to defamiliarize and critique humans’ treatment of animals. Alternatively, often science fiction theorists acknowledge that alien encounter narratives “inevitably [broach] the question of the Self and Other,” but argue that they do so in a way that “keeps ‘the subject’ at the centre, exploring not only who we [humans] are (in the classic, liberal sense) but also what we might become in a future certain to be different from the present.” In this way, the alien other is

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229 For a survey of the different kinds of aliens and alien encounters found in science fiction see Carl D. Malmgren, “Self and Other in SF: Alien Encounters,” *Science Fiction Studies* 20, no. 1 (March 1993): 16.


232 Ibid. Further examples include Parrinder who argues that [a]ny meaningful act of defamiliarisation can only be relative, since it is not possible for man to imagine what is utterly alien to him; the utterly alien would also be the meaningless. To give meaning to something is also inescapably to ‘humanise’ it or to bring it within the bounds of our anthropomorphic world-view. “The Alien Encounter: Or, Ms Brown and Mrs Le Guin,” in *Science Fiction: A Critical Guide*, ed. Patrick Parrinder (London: Longman, 1979), 150. Moreover, science fiction theorists George Slusser and Eric Rabkin argue that “man needs aliens—that which is genuinely outside himself [man]—because it is through learning to relate to the alien that man has learned to study himself.” “Introduction: The Anthropology of the Alien,”
instrumentalised; it is a means to a better understanding of the human “self.” Such interpretations eschew understanding how representations of aliens can function as attempts to imagine nonhuman subjectivity or how nonhuman subjects might have needs and desires of their own.

Nonetheless, when science fiction explores the boundaries of the liberal human subject through the lens of alterity, whether it is understood as a metaphor for human or nonhuman otherness, it simultaneously constructs and polices the boundaries of the human: the alien is “the other.’ The outsider. ... He is not human.”\textsuperscript{233} The human/alien contrasting pair is thus a dualism: the human is constituted through what the alien is not. In an insight that parallels Plumwood’s argument about dualism and the objectification of the other, science fiction critic Elana Gomel highlights the ethical implications of such boundary drawing: “[o]nce the enemy is perceived as a nonhuman [alien], killing [and I will add exploitation] becomes easy.”\textsuperscript{234} I will argue that \textit{Nymphomation} and \textit{Pollen} stage their respective critiques of the human by setting up, and consequently destabilising human/nonhuman dichotomies, through the figure of the nonhuman other (blurflyes in \textit{Nymphomation} and zombies in \textit{Pollen}). These novels’ protagonists overcome the prevailing attitudes of their fictional societies to perceive the agency of the nonhuman other, a move which the novels align with the transformation of their human subjectivity (into a radically posthuman human-alien hybrid subjectivity) and also the restoration of the novels’ despoiled environments. Therefore, this reading of the science fiction alien examines how encounters with the nonhuman other need not be so much about defining the human, as about re-defining the relation between the two categories in terms of their common characteristic of agency. This move situates the nonhuman within the conceptual sphere of the human which sought to exclude it, conferring upon it value and rights—typically only accorded to humans\textsuperscript{235}—in the process.

\textbf{Gregory Bateson’s \textit{Steps to an Ecology of Mind}}

In \textit{Steps to an Ecology of Mind}, Bateson’s use of cybernetic theory to conceptualise the functioning of ecosystems is helpful for understanding how \textit{Nymphomation} and \textit{Pollen} respectively depict the functioning of the fictional Manchester ecosystems they represent. However, before discussing Bateson’s ideas an

\textsuperscript{233} Sam Keen qtd. in Gomel, “Science (Fiction) and Posthuman Ethics,” 341.
\textsuperscript{234} Ibid.
\textsuperscript{235} Ibid., 342–4.
important point needs to be addressed. In contrast to Morton’s and Code’s use of ecology, which highlights how ideas and values are interconnected with how humans relate to the more-than-human, Lisa Asplen, whose research centres upon environmental management, notes that historically interdisciplinary cross-pollinations between cybernetics and ecology—ecosystems ecology—have tended to confirm, rather than challenge, humans as “outside” and able to regulate the functioning of “nature.”

The “cybernetic flavour” of particular strands of ecological thought has come under scrutiny in recent years by social scholars of science and the environment, at best charged as over-simplified interpretations of dynamic natural systems and at worst accused of facilitating or actively promoting the “control” or “dominance” of ecological systems through human technoscientific and managerial activities.

That is, ecosystems ecology tends to undermine, rather than reinforce, the interconnections between humans, society and environment that I will argue are highlighted in Nymphomation and Pollen.

Donato Bergandi’s critique of James Lovelock’s ecosystem analysis—his Gaia theory—is instructive on this point. Bergandi notes that despite Lovelock’s rhetoric, which includes a “litany of holistic refrains,” he seeks:

[an] explanation of planetary self-regulation simply in terms of the feedback of physico-chemical elements[, which] means avoiding, or at least underestimating, an analysis of the bio-socio-ecological levels (including human intervention) [of ecosystems;] … [this results in] reducing the

237 Ibid. To slightly qualify Asplen’s summary of social scholars critique of science, I do not necessarily see promoting “control” of ecosystems through human intervention as negative. For example, it will be necessary to respond to anthropogenic climate change by controlling—that is, by attempting to reduce—the number of carbon parts-per-million in the atmosphere. Indeed, geo-engineering projects that seek to control carbon emissions through, for example, trading schemes, or by encouraging consumers to be mindful of the ecological impacts of their purchases, or by sequestering it through the re-planting of continuous forests, seem to responsibly employ “control” as a way to mitigate our current environmental predicament. As Code notes about ecological thinking, “[t]he point is not to eschew mastery simpliciter or to resist control outright, but to develop ways of articulating and enacting both, so as to shift the emphasis away from presumptions of entitlement and toward assuming the responsibilities and precautionary policies integral to democratically negotiated power and authority.” Ecological Thinking, 32.
relationships of living beings to their environment to an assemblage of physico-
chemical processes interwoven into a complex cybernetics.\textsuperscript{239}

Such an ecosystem ecology resists the kind of ecological thinking Code finds in Rachel Carson's ecological practice, and resists recognition of the ways humans and culture are implicated in the objects they study. However, what is vital to Bateson's project—which makes it distinct from Bergandi's specific critique of Lovelock and Asplen's general critique of ecosystems ecology—is the value the west places upon the "mind" and the significance of this for an environment that is considered "mindless." In other words, for Bateson, values and beliefs are a central component of the connections he draws between cybernetics and ecology.

Bateson argues that the (common and commonsense) notion that an organism's "skin" marks the limits of its "mind" or selfhood conceptually severs organisms from their environment. Moreover, he notes that understanding "mind" as contained within the body underpins a worldview that places "yourself as outside and against the things around you":

as you arrogate all mind to yourself, you will see the world around you as mindless and therefore not entitled to moral or ethical consideration. The environment will seem to be yours to exploit. Your survival unit will be you and your folks or conspecifics against the environment of other social units, other races and the brutes and vegetables.\textsuperscript{240}

In other words, Bateson maintains that the value placed upon the notion of "mind"—particularly, who and what possesses it—has profound impacts upon ecosystems because of its influence over the ways humans act towards and see their relation to the more-than-human environment.

Bateson suggests this worldview can be reconfigured by shifting the limits of the "mind" to include "organism plus environment."\textsuperscript{241} This confers "mind" onto the more-than-human, extending the "unit of survival" to include the organism's environment: "[t]he unit of survival is organism plus environment," he claims, thus, "[w]e are learning by bitter experience that the organism which destroys its environment destroys itself."\textsuperscript{242} For Bateson, understanding that the environment is an indispensable component of the self (and not "simply" a support system for the body)

\begin{footnotesize}
\textsuperscript{240} Bateson, \textit{Steps to an Ecology of Mind}, 468.
\textsuperscript{241} Ibid., 455.
\textsuperscript{242} Ibid., 491. Emphasis in original.
\end{footnotesize}
is crucial to humanity’s survival because it squarely places the environment within the category of what is culturally valued and cared about.

Bateson justifies his expanded notion of “mind” by drawing upon cybernetic theory. He sees cybernetic feedback loops as connected by information, which unites organism and environment, establishing them as a singular organism-environment system. Bateson argues that information produces material changes as it interacts with the components of a system: “zero is different from one, and because zero is different from one, zero can be a cause [of change] in the psychological world, the world of communication.”243 “Mind,” then, is a property of the information processing organism-environment system, and not a special attribute of the organism itself. In order to demonstrate the organism-environment system as extended “mind,” Bateson offers the example of a blind man using his stick:

[t]he elementary cybernetic system with its messages in circuit is, in fact, the simplest unit of mind[.] ... Suppose I am a blind man, and I use a stick. I go tap, tap, tap. Where do I start? Is my mental system bounded at the handle of the stick? Is it bounded by my skin? Does it start halfway up the stick? Does it start at the tip of the stick? But these are nonsense questions. The stick is a pathway along which transforms of difference are being transmitted. The way to delineate the system is to draw the limiting line in such a way that you do not cut any of these pathways in ways which leave things inexplicable. If what you are trying to explain is a given piece of behaviour, such as the locomotion of the blind man, then, for this purpose, you will need the street, the stick, the man; the street, the stick, and so on, round and round. But when the blind man sits down to eat his lunch, his stick and its messages will no longer be relevant—if it is his eating that you want to understand.244

Bateson’s “minded” ecosystem ecology is thus not consistent with the mind-body dualism that underpins the “trope of disembodiment” associated with Gibson’s cyberspace and Code’s portrayal of the epistemic subject of scientific positivism. Gibson’s protagonists and the subjects of positivism are considered to be outside and in control of the ecosystems they seek to manipulate. By contrast, Bateson sees “mind” as a property of the complex interactions of physical systems that include organic components related by information:245 “mind” and body, like values and the physical environment, are mutually constitutive, they cannot be separated.

243 Ibid., 458.
244 Ibid., 465.
245 Ibid., 370.
In the arguments presented in this thesis, I do not directly engage Bateson’s expanded notion of “mind.” However, I do draw upon its theoretical foundation: namely, that humans (and organic nonhumans) are interconnected with their physical environments via information feedback loops. In particular, I see Bateson’s ideas intersecting with my reading of the significance of the novels’ representations of concrete virtual reality technologies. I will use the term “concrete virtual reality technology” to refer to the entirety of a virtual reality system, which includes a mechanical device that connects a biological user to a virtual space via mediating software and hardware (for example, computer program, wires and electrodes).246 “Concrete virtual reality technology” is contrasted with the previously discussed “philosophical discourse of virtuality” that refers to the experience of being inside a virtual space (for example, being able to flout otherwise inviolable physical and biological states).247

I argue that the novels can be seen as paralleling concrete virtual reality technologies—a virtual reality system called the Hackle Maze in Nymphomation and the VIRTUAL reality system in Pollen—with the “real” Manchester under the dominion of the AnnoDomino Company and Xcab/Vurt-story characters, respectively. I suggest that it is through this parallel that the novels highlight how individuals, societies and environments are interconnected. Just as information produces material effects in cybernetic systems as it is interpreted by and fed back into the system, the values associated with AnnoDomino’s discourse of post-industrial capitalism and Xcab/Vurt-story characters’ discourse of technological efficiency are shown to be fed-back into Manchester’s physical environment, producing increasingly polluted and despoiled environments in the process. In other words, I argue that through the metaphor of the cybernetic virtual reality system, Nymphomation and Pollen reveal the ways that dominant discourses and values, subjects and physical environments are interconnected and mutually constitutive.

**Felix Guattari’s The Three Ecologies, Chaosmosis and “Remaking Social Practices”**

Guattari’s writings on ecology (circa late-1980s to mid-1990s) are concerned with developing the notion of ecosophy (ecological philosophy).248 Guattari’s ecosophy

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246 Foster, “Virtuality,” 317.
247 Ibid.
adds to his earlier post-Marxist and post-Freudian theories—and critical theory more generally—an emphasis upon the physical environment and its degradation. In particular, Guattari’s ecological project draws attention to “how economic regimes have invaded the environment and the human psyche.”\textsuperscript{249} The mechanisms by which Guattari argues economic regimes maintain a stronghold over the environment and the human psyche—via the processes of subjectification and homogenisation—resonates with \textit{Nymphomation}'s and \textit{Pollen}'s representations of how the AnnoDomino Company and the Xcab Company/Vurt-story characters maintain control over Manchester’s citizens and ravage its environment. However, in addition to describing the ways economic regimes impede humanity’s ability to attend to the social and environmental challenges that confront it, Guattari’s ecosophy also discusses how to negotiate these impediments so that humanity \textit{is} in a position where it can deal with the challenges that face it. This prescriptive arm of Guattari’s ecosophy is especially helpful for analysing \textit{Nymphomation}: reading \textit{Nymphomation}'s resolution through Guattari’s ecosophical framework offers a way to understand the “workings” of the novel’s cultural “solution” to environmental problems. In short, Guattari’s ecosophy can be seen as “diagnosing” a cultural source of environmental problems, as well as offering a “remedy” to them; the descriptive and proscriptive elements of his ecological project resonate productively with the fictional worlds of \textit{Nymphomation} and \textit{Pollen}.

Guattari’s notion of ecosophy, and the associated notion of the ecosophic object, also informs the more general “work” this thesis does. That is, beyond offering an ecocritical analysis of \textit{Nymphomation} and \textit{Pollen}, I argue that the particular reading practice involved in considering the ecological dimensions of these texts has “produced” more than an analysis of the novels; it has produced an (emerging) ecosophic object, a concept that will be discussed in detail below. Guattari’s ideas are germane for articulating this strand of my argument, and so I will provide a more detailed discussion of Guattari’s work than I have of Morton, Code and Bateson.

\textbf{Post-industrial Capitalism, Capitalist Subjectification and Environmental Passivity}

Central to Guattari’s diagnosis of current environmental problems is the dominance of post-industrial capitalism: its relation to the process of subjectification, the deep ecology movement that emphasises holism and is biocentric; Guattari’s ecosophy, as will be discussed, embraces heterogeneity and adopts a more anthropocentric position.

and the effect of this upon social and environmental conditions. As Philip Goodchild helpfully summarises, the “process of subjectification takes place when ... a subject of enunciation [a speaker] forms its consciousness of itself out of ... the range of statements which are possible [within a culture’s syntax],” which includes the governing relations between syntactical elements, such as what a particular culture values.\(^{250}\) A consequence of this process is that “[p]ower operates through grammar.”\(^{251}\) Critiquing the world that confronts him in 1989 when he is writing *The Three Ecologies*, Guattari claims that global culture is dominated by the “grammar” of post-industrial capitalism, what he calls “integrated world capitalism.”\(^{252}\) According to Guattari, this “grammar” engenders many problems: it “only centre[s] on economic profit”;\(^{253}\) it privileges individualism over collective action; and it “seeks to gain power by controlling and neutralising” any values or practices that do not reinforce capitalism or individualism. In short, the grammar of post-industrial capitalism seeks homogeneity.\(^{254}\)

Furthermore, echoing the concerns of the Frankfurt School,\(^{255}\) Guattari identifies and condemns “*mass media*, particularly *tv*” as both perpetuating these values and pacifying “*the masses,*” rendering them unwilling to resist or even creatively

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\(^{251}\) Ibid.

\(^{252}\) Guattari, *The Three Ecologies*, 47.


\(^{254}\) Guattari, *The Three Ecologies*, 47. Incidentally, examples of values that do not “fit” and are therefore minimised within post-industrial capitalism’s semiotic regime are the “joy of living, solidarity, and compassion with regard to others.” Guattari, “*Remaking Social Practices,*” 266.

\(^{255}\) Douglas Kellner, whose work on critical media literacy draws upon the ideas of the Frankfurt School, notes that they were a group of German-American academics, who, working from a Marxist position, developed:

> a systematic and comprehensive critical approach to studies of mass communication and culture ... combining a critique of the political economy of the media, analysis of texts, and audience reception studies of the social and ideological effects of mass culture and communications. “Critical Perspectives on Television from the Frankfurt School to Postmodernism,” in *A Companion to Television*, ed. Janet Wasko (Blackwell, 2005), 30.

Kellner continues by noting that they:

> analysed all mass-mediated cultural artefacts within the context of industrial production, in which the commodities of the culture industries exhibited the same features as other products of mass production: commodification, standardisation, and massification. The culture industries had the specific function, however, of providing ideological legitimation of the existing capitalist societies and of integrating individuals into the framework of its social formation. Ibid.

The Frankfurt School suggested that, through commodification, standardisation and massification, commercially-owned broadcast mass media dulled audiences’ critical agency, impeding their ability to resist the capitalist ideology endorsed by the mass media they consumed; this effect of mass media is the concern echoed (but also modified) by Guattari. For examples of this concern in the writing of Frankfurt School theorists, see Theodore Adorno’s and Max Horkheimer’s essay “The Culture Industry: Enlightenment as Mass Deception” in *Dialectic of Enlightenment*, and Herbert Marcuse’s chapter “The Dialectic of Civilisation” in *Eros and Civilization* (Routledge, 2012).
engage with the syntax and values presented to them by post-industrial capitalism: "[t]he tele-spectator remains passive in front of a screen, prisoner of a quasi-hypnotic relation, cut off from the other, stripped of any awareness of responsibility." For Guattari, because (commercial broadcast) mass media perpetuate the values of post-industrial capitalism, and because the only thing that post-industrial capitalism valorises is profit, humanity, as a collective, is left "powerless before the challenges that confront it[, including ecological] disasters, famine, unemployment, [and] the escalation of racism and xenophobia." Guattari’s argument is that mass media helps to squeeze out alternative systems of value so that subjectification increasingly takes place only within the discourse of post-industrial capitalism. Thus, within Guattari’s framework, mass media plays a key part in robbing subjects of the critical agency they will need in order to recognise, mitigate and adapt to the adverse social and environmental conditions brought about by industrial and post-industrial capitalism.

As will be discussed in Chapter One, Nymphomation's representation of the blurbflies resonates with Guattari’s (and the Frankfurt School's) equation of mass media with passivity and their assessment that mass media’s primary function is as a mouthpiece for capitalist ideology. Additionally, Guattari’s ideas regarding how the mass media is involved in environmental degradation via subjectification provides an instructive lens through which to discern a similar relationship between mass media and environmental degradation in Nymphomation.

In Pollen, by contrast, centralised broadcast media takes on a rather different incarnation in the form of a pirate radio station run by a counter-cultural figure called Gumbo YaYa, whose self-appointed mission is to broadcast secret police information to the novel’s Mancunians. This character’s name, for me at least, in addition to carrying the connotation of hybridity, also suggestively recalls the popular 1984 rock song Gumbo soup’s combination of “African, American Indian, and European elements” functions as a metaphor for the mixing of cultures. "Gumbo," in Encyclopedia Britannica Online (Encyclopedia Britannica, 2013), accessed 14 May 2014, http://www.britannica.com/EBchecked/topic/249307/gumbo

256 Guattari, “Remaking Social Practices,” 263. (See also The Three Ecologies, 41-2.) Nonetheless, Guattari expresses hope that the adoption of non-centralised broadcast technologies (a current example being the internet, a technology not widely available in 1989) will see “[t]he current equation (media=passivity) ... disappear” as it will “introduce new possibilities for interaction between the medium and its user, and between users and themselves.” “Remaking Social Practices,” 263. (See also The Three Ecologies, 61-2.) Guattari qualifies this comment, which appears to voice a position of technological determinism, by noting that "we cannot expect a miracle from these technologies: it will all depend, ultimately, on the capacity of groups of people to take hold of them, and apply them to appropriate ends." “Remaking Social Practices,” 263.

257 Guattari, The Three Ecologies, 47.

258 Ibid., 57.


"Radio Ga Ga" by Queen. Here I will offer a brief analysis of Queen's song because it points to some of the difficulties with the suggestion—advanced by Guattari and in Nymphomation—that mass media universally promotes capitalist values and enjoins passivity among its audiences. As the title “Radio Ga Ga” suggests, the song is critical of the quality (and diversity) of radio programming, which in the absence of meaningful, thought-provoking content—such as Orson Welles’ 1938 production War of the Worlds, which is referenced in the song—has devolved into meaningless noise. Furthermore, the song implicitly offers a Frankfurt School-style critique of its own. The lyrics suggest that radio’s competition with television for a share of the audience market leads to more generic songs being programmed (and produced in the first place); this is because, the lyrics suggest, familiar sounds offer a “safer bet” when it comes to drawing large audiences than newer, more experimental fare. The lyrics proclaim that “[w]e hardly need to use our ears” because, instead of listening to the radio, time is spent watching “videos for hours and hours.” However, the song’s omniscient narrator, who is seemingly unimpressed by the decision of programmers to take the “safe bet,” remarks: “[a]ll we hear is Radio ga ga / Radio blah blah / Radio what’s new?” Nonetheless, despite the song’s overtly critical commentary on broadcast media (a category to which the song itself belongs), and despite its implicit critique of the ways market forces influence the programming and production of radio content (a process from which the band has itself profited), the song still enjoys regular air time on commercial radio and did enjoy regular programming on music video shows when it was released.

Examples such as “Radio Ga Ga” highlight that (capitalist) dissent exists even within the mass media (even though the dissenting voice may itself yield a great deal of capitalist profit). In turn, this reveals the problem with the logic underpinning the equation of all mass media with passivity: if "Radio Ga Ga" encourages critical engagement, then it is not (according to the Frankfurt School’s/Guattari’s definition) an example of mass media; but if “Radio Ga Ga” is an example of mass media, then it cannot encourage critical engagement. Neither statement is fully correct, which highlights the logical flaw of the Frankfurt School/Guattari position. I acknowledge that Guattari’s argument suggests that even though cultural artefacts offering overt and implicit critiques of market forces on cultural products do exist in mass media, the ability of these critiques to elicit their audience’s critical engagement is undermined by

262 For an example of the Frankfurt School’s discussion of this point see “The Culture Industry: Enlightenment as Mass Deception” in Adorno and Horkheimer, Dialectic of Enlightenment.
263 Queen, “Radio Ga Ga.”
264 Ibid.
the fact that both the artefact and the audience are inscribed within, and regularly exposed to, a mass media that does support capitalist systems of value. However, here I simply wish to point out the logical problem that arises when Guattari generalises all mass media as enjoining passivity. This generalisation becomes particularly salient for my argument about *Nymphomation* and *Pollen*, as will be discussed below, when Guattari implicitly contrasts mass media with “art.”\(^{265}\)

Despite this critique, and despite *Pollen*’s limited representations of mass media, Guattari’s comments regarding the process by which homogenising discourses stifle individuals’ capacity for critical engagement provide a constructive frame through which to understand how the Xcab Company yields and maintains control over the Mancunians and their environment. In *Pollen*, the discourse of technological efficiency, rather than post-industrial capitalism, primarily monopolises the dominant system of valorisation (the characteristics of technological efficiency will be discussed in detail in Section Three of Chapter Two, under the heading “Discourse of Technological Efficiency and Eco-Catastrophe”). Technologies that provide technologically efficient ways of achieving ends dominate the novel’s Manchester; whereas technologies that achieve the same ends in less efficient ways are marginalised. Significantly, the novel does not associate technological efficiency with the reduction of waste; for example, a more efficient car engine uses less petrol and produces lower carbon emissions. Rather, technological efficiency is associated with technologies that enable those with the know-how to use them to efficiently control other humans and nonhumans who do not and cannot. Those who know how to use these technologies use their power to bend socio-physical reality to their will, which is the cause of the eco-catastrophe depicted in the novel.

**Ecosophy, Ecosophical Subjectification and Environmental Engagement**

The “remedy” to Guattari’s diagnoses of the late-twentieth century’s socio-economic “condition” is to promote the discourse of ecosophy and displace the discourse of post-industrial capitalism. In opposition to post-industrial capitalism, ecosophy seeks to do the following: enlist ethics and aesthetics, rather than simply economics, to guide systems of value and morality; foster, rather than stifle, collective movements (collective assemblages of enunciation); cultivate, rather than control or

\(^{265}\) Guattari’s problematic distinction between “art” and mass media also echoes the Frankfurt School. Kellner, “Critical Perspectives on Television from the Frankfurt School to Postmodernism,” 32.

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neutralise, heterogeneity; and operate under the “aegis of a new conjunction of environmental ecology, social ecology and mental ecology.” For Guattari, what will be “new” about this conjunction of mental, social and environmental ecologies is that it will be governed by:

a different logic to that of ordinary communication between speakers and listeners which has nothing to do with the intelligibility of discursive sets, or the indeterminate interlocking of fields of signification. ... While the logic of discursive sets endeavours to completely delimit its objects, the logic of intensities, or eco-logic, is concerned only with the movement and intensity of evolutive processes. Process, which I oppose here to system or to structure, strives to capture existence in the very act of its constitution, definition and deterritorialisation.

One way to conceptualise Guattari’s discussion here is in terms of Code’s ecological thinking. Guattari, like Code, suggests that the act of considering the ways mental, social and environmental ecologies are interconnected changes both the “knower” and what is “known.”

For Guattari, apprehending connections between mental, social and environmental ecologies in and of itself changes what is “known,” because the conceptual legacy the west has received “erroneously divides the Real into a number of discrete domains ... [that wrongly] make a distinction between action on the psyche, the socius and the environment.” As such, Guattari sees making connections between these domains as a deterritorialising move which holds the potential to open up and create concepts and practices that depart from post-industrial capitalist systems of value. In turn, the concepts and practices that these departures make available contribute to the creation of more concepts and practices that are even further removed from post-industrial capitalism’s systems of value (since they emerged within contexts that had already begun to depart from it), and so on. In other words, little-by-little, smaller differences snowball into larger differences, and a lack of differences proliferates into a plenitude of differences. Such is Guattari’s vision of “the movement and intensity of evolutive processes” and the heterogeneity it is capable of generating.

267 Guattari, The Three Ecologies, 44.
268 Recognition of the ways the knower and the known are changed by the process of knowing is what Code’s ecological thinking at once seeks to highlight and to direct productively towards the fostering of responsible epistemologies and practices.
269 Guattari, The Three Ecologies, 41.
270 Ibid., 44.
The reason for elaborating such evolutive processes, is that it describes the necessary “ingredients” that constitute Guattari’s ecosophical “remedy”: “[c]hanges in mental ecology that include processes of subjectification and in social ecology that bring forth the creative power of the social are the prerequisites to improving environmental ecology.” 271 That is, Guattari suggests that humans will only be able to deal with the environmental problems that face them (and use the science and technology available to them for this purpose), if broad-sweeping social and economic changes (gradually, but cumulatively) take place. Significantly, as noted by Verena Andermatt Conley, a literary and cultural theorist who writes with an interest in ecology, French post-structuralism and Guattari’s ecosophy, the “performative enunciations, singular or collective,” by which these slight changes enter the mental, social and environmental arenas “cannot be reduced simply to information.” 272 Guattari claims that a performative enunciation, as a power formation, “binds more than ‘human communication,’” because it “implicates as well an entire complex of ‘extra-human’ semiotic machines. It is also the power of the ego and the power of the super-ego, that which makes one stammer from fear, that which generates somatic reactions.” 273 In other words, Guattari conceives of words and identities as inseparable from and mutually constitutive of physical bodies and (re)actions, which is a position that resists conceptual separations of the immaterial (words/representations) from the physical (bodies).

The question remains: how can such ecosophical conditions of subjectification emerge, given, firstly, the dominance of the discourse of post-industrial capitalism, and secondly, the chicken-and-egg type scenario that Guattari outlines—where changes in mental ecologies are a precondition for changes in social and environmental ecologies, but, at the same time, where changes in social ecologies are a precondition for changes in mental and environmental ecologies? Or, as Guattari puts it:

[w]ithout a change in mentalities, without entry into a post-media era, there can be no enduring hold over the environment. Yet, without modification to the social and material environment, there can be no change in mentalities. 274

For Guattari, the answer lies in the fact that “contemporary subjectivity ... is fundamentally pluralist, multi-centred, and heterogeneous”:

272 Ibid.
[a] subjective phenomenon refers to personal territories—the body, the self—but also, at the same time, to collective territories—the family, the community, the ethnic group. And to that must be added all the procedures for subjectification embodied in speech, writing, computing and technological machines.\textsuperscript{275}

That is, even though post-industrial capitalism seeks to limit, control and neutralise discourses that do not perpetuate its profit-driven values, Guattari maintains that it does not and cannot do so completely. Borrowing Haraway’s terminology (insofar as it resonates with Guattari’s description of subjective phenomena), the situated knowledge that is necessarily tied to an individual’s embodied life experience means that each individual encounters the dominant discourse of post-industrial capitalism from a unique perspective. This is a perspective that is at once informed by the “grammar” of the dominant discourse, and at the same time by a perspective that is inflected with a myriad of other less dominant discourses the individual has encountered (such as the ethnic group) and with the particularities of his or her physiology (including genetics and epigenetics, the latter being triggered by the encounter of the subject with their physical environment). Because this difference or distance exists between the valorisations of the dominant discourse and the unique perspective of the individual, the potential for the “grammar” of the dominant discourse to be subverted (whether intentionally or serendipitously) is always present. As such, there is always a latent possibility of a particular assemblage of components—for example, a reader, trained in critical theory, reading \textit{Nymphomation} and \textit{Pollen} at a time when climate change is “big news” and experiencing “strange” weather events\textsuperscript{276} in her lived experience (that is, a reader such as myself)—to spontaneously prompt an individual to swerve from the governing norm, no matter how homogenous.

Guattari’s comments regarding the processes by which environmental changes can occur through altered conditions of subjectification are useful for analysing \textit{Nymphomation}, which will be discussed in detail in Chapter One of the thesis. What I wish to highlight here are the ways \textit{Nymphomation}’s resonances with Guattari’s ecosophy draw out an important, but understated, aspect of Guattari’s argument: namely, the impact of changes to physical environments on mental and social ecologies.

\textsuperscript{275} Ibid., 266–7.
In Guattari’s description of subjective phenomena, for example, while he includes the physical body, he does not highlight the physical environment surrounding the body as a significant “territory” informing contemporary subjectivity. This omission downplays the impact the physical environment has upon subjectivity: an impact which can be seen, for example, in seasonal affective disorder, where sufferers become depressed in either the winter or summer. Guattari’s de-emphasising of the physical environment as a catalyst for change also emerges in his tendency to explain ecosophical change as beginning in mental and social ecologies and flowing on to environmental ecologies. For example, Guattari claims:

[w]e cannot conceive of solutions to the poisoning of the atmosphere and to global warming due to the greenhouse effect, or to the problem of population control, without a mutation of mentality, without promoting a new art of living in society.

This understates the possibility for environmental conditions to prompt changes in mental and social ecologies as demonstrated, for example, in studies showing that “warming, drought and deluge are associated with upswings in violence[:] It gets hotter and people freak out.”

I argue that in Nymphomation and Pollen the origin and flow of change between mental, social and environmental ecologies is represented as omnidirectional. That is, these novels emphasise the way changes in the physical environment prompt changes in mental and social ecologies, and vice versa. For example, focusing on the trajectory de-emphasised by Guattari—whereby change originates in the physical environment and reverberates through to social and mental arenas—in Nymphomation, the pollution of the air by the blurbflies prompts the Mancunians to demand that the local government introduce legislation against AnnoDomino. In Pollen, meanwhile, it is the environmental catastrophe caused by the Vurt-pollen attack that changes the DNA structure of Manchester’s organic material, prompting Sibyl to rally against the Vurt-story characters. In both novels, a change in the physical environment is shown to be as likely a catalyst for the emergence of ecosophical conditions of subjectification as are changes in social and mental ecologies—a situation that is increasingly becoming the

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279 One exception to this tendency is Guattari’s comment that “[e]cological accidents, such as Chernobyl, have certainly led to a rousing of opinion [in the arena of dominant values].” “Remaking Social Practices,” 264.
case in Australia also, if recent discussions of the links between climate change and the unseasonal bushfires in New South Wales are any indication.\footnote{For example, see Tracy Bowden’s ABC (Australian Broadcasting Corporation) interview “Scientists Say Climate Change Link to Bushfires Demands Action,” 21 October 2013, http://www.abc.net.au/news/2013-10-21/scientists-say-climate-change-link-to-bushfires/5036554.}

\textit{Art and A-Signifying Ruptures}

No matter what their point of origin, Guattari refers to the moments when individuals and collectives depart from the governing semiotic regime as “a-signifying ruptures,” and he claims that such moments are “[a]t the heart of all ecological praxes.”\footnote{Guattari, \textit{The Three Ecologies}, 44.} Where Code found ecological thinking in Rachel Carson’s a-signifying scientific practice, Guattari, seemingly despite himself, often finds it in art and artistic practice. Guattari acknowledges that:

[w]hat we must emphasise here is that the work of locating these [a-signifying] existential refrains is not the sole province of literature and the arts—we find this eco-logic equally at work in everyday life, in social life at every level, and whenever the constitution of an existential Territory is in question.\footnote{Ibid., 46.}

Nonetheless, the examples that Guattari provides of “existential catalytic segments”\footnote{Ibid., 45.} that prompt a-signifying ruptures are almost entirely drawn from “art.”

In \textit{The Three Ecologies} and \textit{Chaosmosis}, for instance, Guattari refers to poetry as possessing “special” qualities that allow it to operate as an existential catalytic segment. He notes that the “ambiguity of the poetic text” means that it simultaneously points to physical objects while also inscribing them with metaphorical significance, and via his reading of a poetic analysis by Proust, argues that this quality of poetry functions as a “catalytic focal point of subjectification.”\footnote{Ibid., 46.} Guattari—elaborating upon an argument made by Mikhail Bakhtin about music—argues that poetry engages the reader as co-creator of the poem’s significance. The meaning of a poem when read and performed becomes detached from the poetic text itself because it does the following: it elicits the “musical aspect” of words; promotes “verbal connections”; encourages emotional responses; and physically engages the reader-performer’s “motor elements of articulation, gesture, mime.”\footnote{Guattari, \textit{Chaosmosis}, 14–5.} This last effect, Guattari rather poetically suggests, creates a “feeling of movement in which the whole organism together with the activity
and soul of the word are swept along in their concrete unity." Guattari argues that such creative engagement not only enables the poem's meaning to become partially detached from the poem itself, but also encourages the reading-performing subject to become detached from their governing semiotic regime (read: post-industrial capitalism) because of the creative, self-perpetuating (autopoiesis) "flights of a-signifying fancy" their creative engagement with the poem leads them on.

I see the ideological estrangement that Suvin argues science fiction literature can prompt as advancing a similar argument—albeit one that does not extend so far as considering how a critical engagement with governing political systems via fictional texts can alter conditions of subjectification, which, in turn, can alter the physical environment. For Suvin, the science fiction text becomes meaningful through the differences readers perceive between the fictional world of the text and the real world in which they exist. As these differences are made explicit, the meaning of the text becomes partly detached from the text itself. However, the connection between Suvin and Guattari that I propose here presents a problem, insofar as science fiction is commonly considered pulp fiction, and so more comfortably fits in the category of mass media than of "art." That is, following Guattari's implied distinction between "art" and mass media, science fiction as an example of mass media will tend to reinforce capitalist valorisations and conditions of subjectification (which perpetuate environmental degradation), instead of inaugurating the conditions for ecosophic subjectification (which carries the potential to prompt environmental engagement) as does "art."


287 Ibid., 15.
288 Ibid.
289 Ibid., 15.
290 Ibid., vii. (Indeed, Parrinder suggests that Suvin’s "poetics of SF [science fiction] may in part be seen as a way of asserting the genre’s literary respectability—a way, that is, of presenting it as a suitable object for criticism and theory." “Revisiting Suvin’s Poetics of Science Fiction,” 37. Nonetheless, Suvin still makes a distinction between "high-culture" works of science fiction that are "aesthetically significant" (which he suggests represents only five to ten per cent of the works of science fiction) and "low-culture" works of science fiction that are "strictly perishable stuff, produced in view of instant obsolescence for the publisher’s profit and the writer's acquisition of other perishable commodities." Metamorphoses, vii. Suvin does temper this distinction with the argument that “even this 90 or 95 [per cent] is highly significant from the sociological point of view, since it is read by the young generation, the university graduates, and other key strata of contemporary society, and is thus only less important than the 5 to 10 [per cent] of SF that is aesthetically significant.” Ibid.
291 Importantly, Nymphomation and Pollen, and Noon’s science fiction more generally, occupy a complicated position within the category of mass media. Their use of postmodern literary techniques and their association with cyberpunk mark them as "literary"; however, their use of
As noted in the discussion of Queen’s “Radio Ga Ga,” Guattari’s tendency to generalise forms of media and assign them “special” qualities—banality, infantilisation, pacification and stupefaction in the case of mass media, and a-signifying catalytic prompts in the case of “art”—is problematic because of the either/or logic it suggests. An additional problem can be identified with Guattari’s suggestion that “art” is a cultural form that is possessed of catalytic properties that are crucially different from those of mass media.\textsuperscript{292} Given Guattari’s insistence on the heterogeneous character of contemporary subjectivity and the potential this opens for an individual’s aberrant engagement with all kinds of media—including “art” and mass media alike—it is not clear on what basis Guattari can sustain his argument that mass media pacifies and “art” activates. Surely, as suggested above, an individual who is partly subjectified through training in critical theory, with its emphasis upon the ways all texts are involved in “the production of a multiplicity of signifying effects,” is not going to have her or his critical agency entirely blunted by turning on the television or picking up some pulp fiction.\textsuperscript{293} Indeed, it seems that such individuals might seek mass media out precisely to reflect upon how they are co-creators of its meaning, partially detaching the mass media text from post-industrial capitalism’s signifying control in the process (as Guattari notes, this is the latent potential of every assemblage—except, it seems, if that assemblage includes the component of mass media). Again, I recognise that Guattari’s point is that because post-industrial capitalism seeks to capture and neutralise discourses such as critical theory, a scenario like the one I have just painted is less likely to occur. Nonetheless, given his insistence on the fundamentally heterogeneous character of contemporary subjectivity, and his emphasis upon “art’s” catalytic capacity residing partly in the subject as co-creator of its meaning, it seems somewhat unwarranted to repeatedly and emphatically foreclose the possibility of mass media acting as a catalyst for a-signifying ruptures.

To this end, I would like to qualify Guattari’s comments about “art” by reference to a point made by Morton, who also privileges “art” as a gateway to a different—ecological—way of thinking. Morton suggests that:

detective plots, teen romance narratives, action sequences and “light tone” also associate them with pulp fiction.

\textsuperscript{292} It is worth noting that this side-steps yet another difficulty, which is this argument’s seeming assumption that the question of what is and is not “art” is a matter that is settled.

Art can help us [apprehend 'the ecological thought'] because it’s a place in our culture that deals with intensity, shame, abjection, and loss. ... Studying art is important, because art sometimes gives voice to what is unspeakable elsewhere, either temporarily—one day we will find the words—or intrinsically—words are impossible.294

Morton’s comments point to the notion that what is “special” about “art” is not something intrinsic to the artwork, but rather is a product of cultural expectations and norms that establish, for example, what is and is not classified as art, what “functions” artworks perform, and how individuals relate themselves to what is considered art.295

With an emphasis upon this qualification, art does seem more likely than mass media to prompt a-signifying ruptures because it is expected to, given that it occupies a privileged cultural position. Artists (are more likely to) produce art in order to challenge audiences, and audiences (are more likely to) expect to be challenged by art; this intention and expectation, which does not typically attend mass media, is self-reinforcing, meaning that artworks are more likely to prompt a-signifying ruptures than mass media.

Significantly, this does not prevent the possibility of mass media acting as the origin of a-signifying ruptures. Taking the above scenario as an example, the expectation of the “subculture” of critical theorists is that readers are always active co-creators of a text’s multiple meanings; therefore, it seems that an individual, whose subjectification has partially taken place through engagements with critical theory, is quite likely to “hit upon” a-signifying catalytic segments in both mass media and “art.”

Granted, as Guattari emphasises, most mass media texts are not created with the intention of eliciting such an effect, so the scenario is not exactly equivalent to the situation with “art.” Nonetheless, this shift acknowledges the agency of subjects even when they encounter mass media texts, and further demonstrates Guattari’s claim that contemporary subjectivity is fundamentally heterogeneous, underpinning the potential for a-signifying ruptures (even under conditions of subjectification that actively resist change) to be harnessed.

295 Interestingly, science fiction scholar Andrew Milner argues a similar point regarding the differentiation of science fiction into the categories “literary” and “pulp”: Literar SF [science fiction]—by which we mean merely that fraction of the current SF field currently incorporated into contemporary versions of the literary canon—and pulp SF are different subtypes of the same genre, occupying different locations in the same literary field, distinguished from each other primarily by their respective technologies of production and attendant modes of distribution and reception. Locating Science Fiction, 58.
**The Ecosophic Object and Me**

With these qualifications—including the impact of the physical environment on subjectification and the capacity for agency that attends the heterogeneity of contemporary subjectivity—I put forward *Nymphomation* and *Pollen* as (quasi) "mass media" texts that have produced, for me, as the co-creator of their meanings, a-signifying ruptures leading to my personal (emerging) ecosophical awareness and practice. That is, I argue that what emerges from my critical engagement with the novels’ ecological dimension is what Guattari calls an ecosophic object. Like an a-signifying rupture, the ecosophic object is a catalytic event-advent that emerges when multiple and diverse mental, social and environmental components assemble and interact in ways that depart from the norms of the governing semiotic regime. However, a-signifying ruptures and the ecosophic object refer to different stages in the rupturing (deterritorialising) process: Guattari notes that "as experiments in the suspension of meaning [a-signifying ruptures] are risky, as there is the possibility of a violent deterritorialisation which would destroy the assemblage of subjectification." Ecosophic objects, on the other hand, "come into being through an ontological heterogenesis and affirm themselves within the world of significations as a rupture of sense and existential reiteration." That is, the term a-signifying rupture refers to the initial event that may give rise to systems of value and conditions for subjectification that depart from those of post-industrial capitalism (but does not always do so). On the other hand, the term ecosophic object refers to occasions where the initial a-signifying rupture does give rise to evolutive processes that do perpetuate conditions in which systems of value and territories of subjectification that value the physical environment do arise.

I argue that the process of researching and writing this thesis, at this particular cultural moment, has led to my personal ontological heterogenesis that has altered my values and behaviours regarding my relation to nonhuman others. I also argue that my ability to articulate the significance of undertaking this process for my ways of knowing, valuing, acting and existing in relation to the human and nonhuman other has been aided by my exploration of the notion of ecological thinking, and in particular, Guattari’s discussion of the ecosophical object. It is important to clarify that this claim marks a shift in the direction of my argument. So far I have discussed Morton’s, Code’s, Bateson’s and Guattari’s models of ecological thinking in terms of how they have

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296 Guattari, *Chaosmosis*, 125.
298 Guattari, *Chaosmosis*, 125.
informed and illuminated my understanding of the ways the novels represent the relation between the human and nonhuman. However, by arguing that the process of doing this thesis has produced an ecosophic object (myself), I am suggesting these models—as part of the complex assemblage of components that constitute this thesis, including the representations in the novels, my training in critical theory, my embodied experience as a white, middle class Australian, the prevalence of environmental discourses in the media, and my growing awareness of "strange weather"—have contributed not only to my understanding of the ecological dimension of the texts, but also to my understanding and sense of responsibility towards the ecological dimensions of my everyday life.

It is a situation where the process of coming to know the object of study (Nymphomation and Pollen) has transformed the knower (myself). As the preceding discussion has indicated, I do not see this transformation as a straightforward matter whereby the reader is the passive receiver of the ecological "messages" and "insights" the novels' representations unproblematically "transmit." Rather, I see the process by which novels come to influence and shape the worldviews, actions and practices of readers as being the result of an active, open and critical dialogue between the fictional text, the readers' knowledge, and the readers' lived experience. In the case of this thesis, this has involved analysing what the novels' forms and representations have to "say" about the relationship between the human and nonhuman; researching the theoretical area of ecocriticism and notions of ecological thinking, which are theories that draw attention to the physical environment; and reflecting upon how the dimly perceptible relations foregrounded by the novels' representations, especially when read through the ideas emphasised by ecocriticism and ecological thinking, "square" with my knowledge and experience of the world. It is the "unique" assemblage of factors such as these, and not "just" the novels themselves, that have brought forth my ecosophic object, my transformed way of knowing and being in relation to the nonhuman other. Following Guattari's lead, I refer to a reader-text-theory-environment assemblage that, through the complexities arising from the intermingling of these diverse components, results in altered, ecologically-oriented ways of knowing, acting and being an ecosophical reading practice.299

299 Murphy, in his latest book Transversal Ecocritical Praxis, outlines the eponymous notion, which resonates clearly with what I have termed an ecosophical reading practice. Transversal Ecocritical Praxis: Theoretical Arguments, Literary Analysis, and Cultural Critique (Lanham: Lexington Books, 2013). In particular, Murphy notes in a passage that unpacks the concept of "praxis":
The personal, ecosophical transformations that the process of undertaking this thesis has brought about are perhaps best explained via environmental philosopher Dale Jamieson's notion of "green virtues," which are a fair approximation of the ecologically-oriented characteristics I now attempt to embody and promote. Jamieson argues for climate change to be understood as a moral issue, and puts forward humility, temperance and mindfulness as virtues to be cultivated and revered as morally admirable because they draw attention to the environmental consequences of an individual's values and actions. In particular, I will focus upon mindfulness as it most closely relates to the ecosophical thinking and practices I see myself as engaging in.

Mindfulness, within the context of Jamieson's green virtues, entails being conscious of the connections between actions and their environmental consequences: "much of our environmentally destructive behaviour is unthinking, even mechanical. In order to improve our behaviour, we need to appreciate the consequences of our..." [in contrast to a dogmatic, teleological theory, or a theory ungrounded by any relationship to lived experience, or imagined atheoretical analyses, praxis involves a continuous shuttling back and forth, weaving a fabric of terminologically informed critique always open to correction, emendation and fundamental revision. That activity should be understood as both an end in itself within the confines of moments of engagement, such as revising a theory for internal consistency, and as a means to an end, such as a better understanding of the function of a text in its reception at a particular moment in time facilitated by a realisation of cultural perceptions of temporality. And both of those activities need to be considered in their relation to real effects in the world in terms of the use of literary texts for persuasion, changing cultural values, altering social practices, and increasing individual self-awareness in relation to personal behaviour. ... Praxis refuses to separate out the abstract from the concrete as if they were different stations on an automobile assembly line. It argues for a nonlinear, multidirectional integration of theory, reading, criticism, and social action. That is to say, ecocriticism ought to function as an ethical practice to realise its full intellectual potential. Ibid., 5-6.

My understanding of the complex interactions and effects that emerge through the reader-text-theory-environment assemblage arose in conversation with Guattari's ideas and before Murphy's book came to my attention. (Despite the similar line of thinking pursued by both Murphy and myself, it is interesting to note that we arrived at this trajectory via different routes: while Murphy briefly touches upon Guattari's *Chaosmosis*, his notion more substantially works with the theories of Mikhail Bakhtin.) That commonalities exist between Murphy's transversal ecocritical praxis and my ecosophical reading practice suggests this historical moment is ripe for their articulation in the context of ecocritical scholarship.

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301 Incidentally, Jamieson defines the virtue of humility as entailing the acceptance that "nature" is greater than oneself: the ideal of humility thus involves overcoming one's sense of "self-importance," one's ignorance of "nature," and one's inability for self-acceptance: "[a] person who has proper humility would not destroy redwood forests (for example) even if it appears that utility supports this behaviour." Ibid. The virtue of temperance entails self-restraint and moderation, which aids the environmental cause through its valuation of the "importance of reducing consumption." Ibid.

actions that are remote in time and space.” Jamieson provides the example of shopping:

a virtuous green would see herself as taking on the moral weight of production and disposal when she purchases an article of clothing (for example). She makes herself responsible for the cultivation of the cotton, the impacts of the dying process, the energy costs of the transport, and so on.

Finally, Jamieson notes that “[m]aking decisions in this way would be encouraged by the recognition of a morally admirable trait that is rarely exemplified and hardly ever noticed in our society.” Indeed, when I read Jamieson’s remarks, I allowed myself a self-congratulatory “pat on the back” (which, unfortunately, is not entirely consistent with the other green virtue of humility). Nonetheless, I permitted myself this indulgence because in the decision making process of the “virtuous green,” I saw the hallmarks of the ecosophical thinking that has become, as a result of the literary analysis and theoretical research that has been involved in investigating the ecological dimension of Nymphomation and Pollen, central to the reasoning that underpins my consumer practice. In my case, such reasoning more often than not leads to my not purchasing a new item at all, and accounts for the large number of recycled, restored and re-purposed items that populate my home. Moreover, I have found that I am incredibly proud of this. I advertise without reservation to all who visit which items placed before them are reclaimed “rubbish,” before elaborating in detail the process by which my family members and I transformed each piece into prized treasures (unfortunately, such pride is not consistent with the virtue of humility either).

While this may seem a trivial example, it demonstrates a distinct shift in my personal values and the source from which I derive these values. Admittedly, prior to commencing this thesis, environmental issues did not feature highly on my radar of political concerns, and I had certainly not spent much time considering the complex

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304 Ibid.
305 Ibid.
306 In other words, it is a process that has drawn my attention to the notion, outlined by environmental philosopher Joseph R. DesJardins, that:

a satisfactory environmental ethics must address not only those values that determine what we want but also those values that determine what we are. Implicit in this distinction is the recognition that our identity as a person is constituted in part by our values and attitudes, ... [our] fundamental and enduring dispositions ... and beliefs. Thus, when an environmental philosophy requires that we change our fundamental attitude toward nature, it is requiring quite literally that we change ourselves. Environmental Ethics: An Introduction to Environmental Philosophy, 5th ed. (Boston: Wadsworth Cengage Learning, 2013), 136.

307 That I thought to consider the ecological dimensions of the novels in the first place was brought about by a series of chance encounters, which, in hindsight, seem an outstanding example of Guattari’s notion of the origins of the ecosophic object.
ways environmental issues are intertwined with other areas, including: consumer practices, economics and technology; gender, race and class; and ethics, epistemology and ontology. Analysing *Nymphomation*’s and *Pollen*’s ecological dimension—which, as I have noted, is an aspect of the novels that has become apparent at this historical moment in part because of the salience of public discussions about climate change in the media—has drawn my attention to such connections and how I, too, am implicated in ecological processes. My critical engagement with the novels’ representations of ecological interconnectedness and my engagement with the theoretical areas of ecocriticism and ecological thinking—rather than, say, (passively) following the climate change “debate” in the media—has led to my greater cognitive and emotional understanding of ecological interconnectedness and ignited my desire to cause more good than harm to the humans and nonhumans entangled therein. This shift in values, which can be seen in my attempts to “live up to” the ideals of green virtues, reverberates throughout the spectrum of my familial, social, political and environmental relations, informing how I act, and how I have come to act differently, in each context. In other words, my critical engagement with the novels from an ecocritical perspective has produced an a-signifying rupture, leading me to seek out experiences, practices, knowledge and values that increasingly depart from the norms of post-industrial capitalism, and instead value actions and beliefs that engender responsibility towards the human and nonhuman other. In short, this thesis has produced an ecosophic object. This, it seems to me, is yet another reason to study literature in the anthropocene.

**Thesis Organisation**

In this Introduction I have presented the central arguments of the thesis and the theories that inform them. I noted that it is the current salience of environmental discourses in the public arena that initially drew my attention to the ecological dimensions of *Nymphomation* and *Pollen*. I argued that these novels’ fictional

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308 Ecocritic and environmental philosopher Patrick Curry expresses a similar notion when he distinguishes virtue ethics from “deontological” ethics (a position which takes the view that “actions fulfilling duty are morally right regardless of their consequences”) and “consequentialist” ethics (a position which takes the view that the value of an action is derived completely from its consequences):

> [v]irtue ethical behaviour is not about knowing *what*, but know-*how*, and we learn that through the lived experience of finding ourselves in concrete situations of ethical challenge ... that depends upon, and contributes to, social participation in a community; or rather, a number of overlapping communities, both human and nonhuman ... guided by, and guiding as, exemplars: education, in its broadest lifelong sense. *Ecological Ethics: An Introduction* (Malden: Polity Press, 2006), 39, 43, 48.
evocations of the historical city of Manchester and their re-workings of cyberspace help set up their ecological dimensions. I also suggested that my engagement with the notion of ecological thinking—especially through the work of Morton, Code, Bateson and Guattari—has shaped my understanding of the significance of these novels’ ecological dimensions.

The significance I read as finding expression through the ecological dimensions of these novels is an ecologically-oriented ethics: a set of principles regarding how we ought to relate to the nonhuman. As co-creator of the novels’ meaning, I read these principles as being conveyed through their form and content.

These broadly-defined principles are as follows. (1) The profound ways that the immaterial and material are interconnected ought to be acknowledged in order to help humans act in ways that are consistent with ecological limits. (2) Discourses that valorise profit and (scientific) control ought to be recognised as the drivers of environmental disaster. (3) Dominant discourses ought to be replaced with a multiplicity of alternative discourses so as to create the cultural and conceptual conditions that will enable the flourishing of technologies, policies and practices that work within ecological limits. (4) To become agents of ecological change, subjects ought to first relinquish their status as Human—that is, they must no longer conceptualise themselves as independent of the ecosystems that sustain their existence—and begin to advocate for the welfare of the radically nonhuman other. I will read *Nymphomation* and *Pollen* as providing (in a similar way to Guattari’s ecosophy) an ecologically-oriented ethics that is at once descriptive—highlighting the cultural barriers impeding humans’ ability to deal with environmental problems, and prescriptive—outlining how the situation can be addressed via a cultural “solution.”

Structurally, the body of the thesis is divided into two chapters: Chapter One will discuss *Nymphomation* and Chapter two will discuss *Pollen*. Each chapter is further divided into four sections, with each section using an element of the novels’ respective fictional versions of Manchester as a springboard to elaborate how their narrative form and content convey their ecologically-oriented ethics.

The analysis in this thesis shows that reading literature through the notion of ecological thinking at this historical moment can produce ecosophical objects in the form of the reader-text-environment assemblage. This is a process that I call an ecosophical reading practice. The features of such a reading practice include being attentive to the complex interactions that occur between subjects and their socio-physical environments and being mindful of the possibility for any encounter to produce unexpected outcomes that can lead to opportunities for improved socio-physical situations. It is important to note that such an ecosophical reading practice
need not be limited to the reading of literary or artistic texts, but instead encompasses the broader notion of text derived from semiotics:

[a text] can take a wide variety of forms, such as speech, writing, film, dress, car styling, and so on. ... [A text] consists of a network of codes working on a number of levels and is thus capable of producing a variety of meanings according to the socio-cultural experience of the reader.⁴⁰⁹

That is, a subject’s socio-physical environment is the text that they encounter and read. I will thus conclude the thesis by reading a non-literary text called *Ingress*, a geo-location mobile phone game, in terms consistent with an ecosophical reading practice. As I will discuss in the conclusion, there are intertextual resonances between *Pollen* and *Ingress* in terms of their respective narratives and themes. However, moving beyond comparing their similarities, my reading of *Ingress* will focus on how its form and the context of its production lead it to produce the complex engagements attending the emergence of the ecosophic object, despite the game’s thorough immersion in the logic of post-industrial capitalism.

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Chapter One: Nymphomation

Introduction

Had you tried to access the website of the Nuclear Agency of the French government on December 21, 1995, it is highly likely that frustration would have halted your endeavour. Repeatedly you would have tried to load the page and found yourself unable to do so every time. Your attempt to complete your eBay purchase on February 2, 2000 would have been similarly frustrated. The satisfaction of finalising your purchase on this day would have been thwarted by a transaction page that consistently failed to load.

On both occasions, your internet misadventures would not have been caused by slow dial-up speed or an incoming telephone call severing your connection, but by online protests, acts of electronic civil disobedience. In 1995, concerned, internet savvy French and Italian citizens formed a group called Netstrike and organised online protests to "counteract the French current policy on nuclear and social items": they envisaged their actions as a "world-wide movement able to counteract world-wide injustice." In 2000, their online protest against e-commerce sites eBay, Amazon and Buy.com "coincided with an atmosphere of growing unease about the dot-com boom": protesters' actions inveighed against the "hegemonic intrusion of ‘consumer culture’ into the private lives of average citizens."

Both the anti-nuclear and anti-consumerism protests took the form of "denial-of-service" attacks, which exploit a "weakness" in internet servers. Protest organisers directed protesters to the targeted sites and instructed them to repeatedly reload the page:

[this action] doesn't involve breaking into a target Web site but simply overloading it. In these attacks, routers connecting the sites to the rest of the Internet have been flooded with so much fake traffic that the router becomes

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3 Netstrike’s online posting following the protest’s “good result” qtd. in, Schwartau, Information Warfare, 407.
unable to cope. Once this is achieved and the site is overloaded, genuine users find themselves unable to get connections.\(^6\)

Such protests are disruptive rather than destructive: they are the virtual equivalent of non-violent, direct action sit-ins.\(^7\) These online protesters combine the political aims of activism with the skills of computer hacking, which is the practice of modifying the software or hardware of a computer system to alter its intended form. "Hacktivism" is the portmanteau that neatly captures this combination of political interest with technical skill: protesters' activism involves hacking information systems. Such protesters undertake their actions to draw attention to individuals, corporations, or nations "deemed responsible for oppressing the ethical, social, or political rights of others";\(^9\) and they seek to do so by blocking "cyberspatial information flows," which, as early hacktivist group Critical Arts Ensemble argues, is increasingly the source of institutional and corporate power.\(^10\)

The Netstrike and dot-com attacks are germane to the ecological concerns of this thesis because of the ways they reveal the complex interconnections between information technology and environmental degradation in information societies. In the case of Netstrike's protest, information technology was deployed to demonstrate against nuclear tests being carried out by the French government on Mururoa Atoll,\(^11\) which reporter Michael Field notes "have left a residual mass of about 500 kilograms of plutonium 239, an extremely toxic [substance that] has to be contained for 240,000 years before it can enter the wider environment."\(^12\) Netstrike mobilised information technology as part of multiple, independent efforts to stop nuclear technology, which has direct and disastrous impacts upon the environment.\(^13\) In the case of the dot-com protest, information technology was deployed to demonstrate against consumer culture, which contributes to environmental degradation by driving the cycle of mass-

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\(^6\) Williams, "EBay, Amazon, Buy.com Hit by Attacks."

\(^7\) Winn Schwartau, "Hacktivists' Cyberdisobedience Is Anything but Civil," Network World 16, no. 37 (September 1999): 71.

\(^8\) Krapp, "Terror and Play, or What Was Hacktivism?,” 88.

\(^9\) Manion and Goodrum, "Terrorism or Civil Disobedience," 14.


production, mass-consumption and mass-waste. In the dot-com protest, protesters mobilised information technology against the consumerist and materialist uses to which the Internet has been put by private corporations. In both instances, in addition to protesting against institutional and corporate powers on the grounds of the ethical, social or political rights of others, these protests also can be seen as using information technology to advocate on behalf of the environment.

*Nymphomation*, which was published two years after the online anti-nuclear protests and three years before the anti-consumerism ones, shares an affinity with the hacktivist sensibility. In particular, *Nymphomation* highlights information technology's dual potential to act as an entity that contributes to environmental degradation, but which can also help ameliorate environmental problems. The narrative follows a group of misfit Manchester University students, who call themselves the Dark Fractals, and their leader, the tellingly named professor of mathematics Maximus Hackle (magnus/great hacker). Their aim is to hack the database of the AnnoDomino Company, a lottery and advertising company that operates exclusively in Manchester and that opened in the city thirty-nine weeks prior to the beginning of the novel's main plot. Ostensibly, the Dark Fractals are motivated by the hope of saving people's lives, based upon Maximus’ suspicion that the company is having some of its lottery players murdered. Ultimately, however, their hacking reveals to the reader the ways AnnoDomino’s advertising and lottery game oppresses all Mancunians and despoils their environment.

AnnoDomino’s advertising and lottery are shown to harness and direct the Mancunians desires “to generate ways of life, forms of identity and human needs” that meet the profit-goals of the company, rather than the needs of the Mancunians themselves. The Dark Fractals final act of hacktivism—which, unlike the denial-of-service protests, involves physically breaking into a company's headquarters and database—results in the lottery being disabled and the wording of its advertising slogan being subverted. In *Nymphomation*, the shutting down of the lottery game and the subversion of the wording of its advertisement are associated with immediate improvements in Manchester's social and environmental conditions. I will argue that *Nymphomation*'s hackers are fictional examples of hacktivists: their hacking endeavours are represented as motivated by ethical concerns for the wellbeing of the human and nonhuman other, and the outcomes of their hacking are associated with the improvement of the society and environment of the novel’s fictional Manchester. Additionally, I will argue that this reading of the Dark Fractals as hacktivists emerges

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because the novel imagines Manchester’s socio-physical environment as operating as a virtual reality system that can be hacked in the same way as a computer system. In other words, I have chosen to explore *Nymphomation* through the motif of hacktivism because it engages with the notion of the ecological interconnectedness of the immaterial and the physical in a way that permits me to unpack the novel’s ecological dimension.

I will begin my analysis by offering a detailed discussion of the Hackle Maze, the novel’s representation of a concrete virtual reality technology. In particular, I will consider how the novel parallels the Hackle Maze with Manchester’s socio-physical environment, and the significance of this for my reading of the novel’s ecologically-oriented ethics. Additionally, I will consider how this metaphor productively constructs the novel’s fictional Manchester as a cybernetic ecosystem in which physical and immaterial entities are in a relationship of mutual influence. I will argue that it is upon this foundation—that reality is produced through the interaction of a physical reality (replete with physical limitations) and a discursive reality (that informs how subjects interact with physical reality)—that the novel’s eco-project rests. That is, the Hackle Maze is a textual marker of the notion that the immaterial (virtual reality and discourse) and the physical (hardware and the physical environment) are inextricably interconnected, rather than separate.

In the second section, I will focus upon the blurbflies, which are insect-shaped flying advertisements. I will examine how the blurbflies are constructed as interfaces that connect the Mancunians to the cybernetic Manchester (eco)system, and also as interfaces that impact upon the Mancunians’ experience of and interaction with the system. Within the context of the analogy the novel constructs between its fictional Manchester and a cybernetic (eco)system, I read the blurbflies functioning in a manner analogous to the screens, haptic sensors and wires that connect humans to concrete virtual reality technologies. My discussion will focus on how the blurbflies can be read as foregrounding the subtle and profound ways that (commercial) mass-media contributes to social and environmental problems within the novel’s depiction of post-industrial capitalism.

Yawndale Monstermarket and the “dream to win” slogan will be the focus of the third section. I will analyse these two figures as representing how Manchester, when understood as a socio-physical cybernetic (eco)system, can be “hacked” in order to improve social and environmental conditions. In *Nymphomation*, post-industrial capitalism is “hacked” in two different ways. In the case of Yawndale Monstermarket, “hacking” involves the destruction of a shopping centre (a symbol of consumerism);
and in the case of the “dream to win” slogan, “hacking” involves the manipulation of the blurbflies' advertisement. In this section, I read the novel as suggesting that the successful mitigation of environmental problems requires attending to the discourses that structure the ways humans think about and act towards human and nonhuman others. I argue that Nymphomation puts forward cultural solutions, rather than technological or policy solutions, as the foundation of environmental improvement.

The character of Jazir, the novel’s preeminent hacker and advocate of the nonhuman other, will be the focus of the fourth section. I argue that as part of Jazir’s character development he undergoes not only an epistemological transformation, but also an ontological transformation. Throughout the novel, Jazir’s character changes from an entrepreneurial capitalist into a (posthuman) eco-subject. Jazir enters into the state of human-becoming-blurbfly due to his somatic encounter with a blurbfly, which is directly associated with his hacking endeavours. Through the construction of Jazir’s metamorphosis, I read Nymphomation as suggesting that hacking discursive systems profoundly changes both the user and their environment.

It is on this point that the fictional world of the novel outstrips the historical examples of hacktivism with which I began. In Nymphomation, the impact of the Dark Fractals’ hacktivism on AnnoDomino is shown to be direct and permanent, whereas the ability of the Netstrike and dot-com protests to directly halt flows of capital was temporary and limited. This difference between reality and fiction is significant insofar as it points to the political “work” that science fiction does. As noted in the Introduction, in offering a refraction of reality, science fiction texts engage readers’ political awareness via cognitive estrangement, prompting them to “see [reality] afresh.”

When Nymphomation imagines the hacktivism of the Dark Fractals as having direct and permanent effects, the novel encourages readers to reflect upon the factors in their own reality that prevent real-life hacktivism from being as effective. In this way, I suggest that Nymphomation itself can be seen as enacting a kind of hacktivism (albeit through the medium of literature rather than the internet). By providing a fictional vision of a better reality, one in which the discourse of post-industrial capitalism is “hacked” in such a way as to improve social and environmental conditions, the novel provides a creative lens through which readers may consider and evaluate their own reality.

In short, through a close reading of the novel’s representation of the Hackle Maze, blurbflies, Yawndale Monstermarket, the “dream to win” slogan and Jazir, I argue that Nymphomation, firstly, represents physical and immaterial entities as mutually constitutive, and secondly, suggests that by “hacking” dominant discourses, positive,

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15 Suvin, Metamorphoses of Science Fiction, 71.
broad-reaching personal/ontological, social and environmental changes can occur—a project in which the novel itself participates.

Section One: Hackle Maze

The historical practice of hacktivism is underpinned by an analogy that sees social systems functioning cybernetically like computer systems. Components of computer systems are related cybernetically via closed, information feedback loops: inputs interact with the system's environment through information exchanges, which produce changes (outputs) in the system that can be measured and controlled. Hacktivists use cybernetics to make an analogical connection between computer systems and social systems: for hacktivists, social systems are like computer systems because both can be understood as functioning in terms of how inputs and outputs interact in closed systems. For example, hacktivist protests draw attention to naturalised discursive inputs that encourage people to unquestioningly accept the status quo: Stuart Hall, in his revision of Marx' notion of false consciousness as a distortion of reality, calls what I am referring to as naturalised discursive inputs the "naturalisation effect"—treating what are the products of a specific historical development as if universally valid, and arising not through historical process but, as it were, from Nature itself."16 Hacktivist protests critique the "naturalness" or "rightness" of a government testing nuclear weapons for the sake of national security or corporations lauding the convenience of being able to shop from anywhere, at any time. Such awareness-raising modifies discursive inputs by reframing the action or idea from a critical standpoint. This, hacktivists hope, will disrupt business-as-usual outputs by motivating people to think about and modify their behaviour through such actions as changing their voting or consumption habits. Because hacktivism possesses "symbolic and demonstrative value,"17 the examples of historical hacktivism I refer to can be understood as attempts to hack dominant discursive systems to indirectly impact flows of information and/or capital by raising political awareness about issues of social and environmental injustice.

I read Nymphomation's hacktivist project as similarly relying upon this analogy between computer systems and social systems, where both work according to cybernetic principles. By attacking AnnoDomino's headquarters, the Dark Fractals directly put an end to the company's lottery game, which is represented as driving the city's increasingly polluted and despoiled environment. However, the Dark Fractals'  

16 Hall, "The Problem of Ideology-Marxism without Guarantees," 34.  
17 netstrike.it working group, "Netstrike: A New Way to Protest!."
hacktivism also changes the advertisement broadcast by the company's blurbflies from “play to win” to “dream to win.” In Nymphomation, the “play to win” advertisement of the blurbflies is represented as valorising profit-wealth to the extent that acquiring more money is understood by the Mancunians to be the only pursuit that is “natural” and right, an end to which all other concerns (including ethical concerns) should be subordinated. The “dream to win” subversion, which claims that winning can be secured through dreaming rather than acquiring money, draws attention to the fact that alternatives to AnnoDomino’s prescribed route to “winning” exist. The “dream to win” alternative thus brings into question the “naturalness” and rightness of the values espoused by AnnoDomino’s advertisement. Additionally, the novel associates the emergence of the “dream to win” advertisement with improved environmental and social conditions, suggesting that creativity rather than money is the pathway to success in these arenas. In terms of the hacktivist analogy, the novel suggests that by modifying discursive inputs—changing “play to win” to “dream to win”—the Dark Fractal’s hacktivism de-naturalises the value of wealth-profit in the discourse of post-industrial capitalism, the “output” of which being the modification of Manchester’s (eco)system itself through improved social and environmental conditions.

The details of these arguments, and their relevance to my interests in ecosophy, will be developed in Sections Two and Three. However, I have briefly outlined them here because the analogy upon which the Dark Fractal’s hacktivist project rests foregrounds discourse as a force that shapes Manchester’s physical environment. This analogy illuminates two productive equivalences. Firstly, it compares discourse to the virtual/simulated aspects of computer systems, conferring on the former properties of the latter. Like a realistic computer simulation, discourse appears to be “natural,” but is in fact constructed; therefore, like a computer simulation, because discourse is constructed, it can be manipulated.18 In Nymphomation, the discourses of individualism, consumerism and post-industrial capitalism are represented as naturalised through the advertising techniques of AnnoDomino, and it is these discourses that the Dark Fractal’s hacktivism reveal to be contingent rather than given. Following the analogy, then, I will refer to the naturalisation of the discourses of individualism, consumerism and post-industrial capitalism by AnnoDomino as the “AnnoDomino lottery simulation.”

Secondly, the analogy likens discourse to information as the immaterial element connecting the components of a system. Through feed-back loops, cybernetic theorists understand information to connect and produce change in closed systems,

18 Foster, “Virtuality,” 318.
including computer systems; likewise, discourse connects and produces change in the components of a socio-physical system. In the latter case, following this analogy, discourse can be seen as an immaterial element that connects humans to each other and their socio-physical environments by shaping their ideas, beliefs and actions. In Nymphomation, the discourse of post-industrial capitalism is constructed as an information input that despoils Manchester’s environment by encouraging Mancunians to adopt environmentally-damaging values and behaviours.

Thomas Foster, writing with an interest in representations of virtuality and posthumanism in science fiction, notes that hacktivism, which he refers to as “reality hacking,” is the “specific way that the critique of empirical self-evidence … is represented in many narratives of virtual technologies of computer simulation,” such as Nymphomation. That is, as already discussed, the analogy between computer systems and social systems—upon which the political dimension of hacktivists’ activities rests—suggests that:

virtuality [simulated reality] can make people aware of the ways in which “reality” masks the contingency of the world that seems to confront us as given. ... [Fictional narratives of hacktivism emphasise the potential for technologies of virtual reality] to produce a crisis in ideological legitimation strategies (especially what [cultural theorist Stuart] Hall calls ideology’s “naturalisation effect”), so that the emergence of reality’s consensual or social aspects is imagined as the basis of new forms of political dissent.

However, Foster notes that such fictional narratives tend to assume that “self-consciousness about virtual mediation is sufficient to give users power over it, to break the immersive effect, without the aid of an interface or the skills needed to use it.” He adds that:

[t]his version of reality hacking, popularised by The Matrix, moves beyond the desire to define how VR [virtual reality] can promote critical reflection on real life, to imagine that virtual experiences have direct and immediate transformative effects on the real.

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19 Bateson, Steps to an Ecology of Mind, 458; Hayles, How We Became Posthuman, 2.
21 Foster, “Virtuality,” 320.
22 Ibid.
23 Ibid.
Such hacktivist narratives, Foster suggests, downplay a basic principle of concrete virtual reality systems, namely:

that the principles that seem to govern the simulation can be violated or hacked[, which] actually demonstrates the way in which technological skill, an understanding of the codes or principles that make the simulation possible, is necessary in order to intervene in it, and not just self-awareness of the simulated or mediated nature of the experience.\(^\text{24}\)

Therefore, Foster maintains that the “effects of how different users engage with specific technologies ... [and the identification of] points of interimplication or feedback between the virtual and the material are necessary for virtual experiences to function critically rather than as escapism, for the virtual to have real effects.”\(^\text{25}\) I argue that *Nymphomation*’s hacktivist narrative *does not* assume that self-consciousness about virtual mediation is sufficient to give users power over it because it *does* highlight the effects of users engagement with specific technologies, the points of feedback between the virtual and the physical, and an understanding of how the codes or principles that make the simulation possible are necessary to intervene in it.

Indeed, *Nymphomation*’s ecological dimension in part emerges through its representation of the “virtual” discourse of post-industrial capitalism as being related to Manchester’s physical environment in terms of a feedback loop. The environment is depicted as becoming despoiled (physical output) as a result of Mancunians interacting with the discourse of post-industrial capitalism (informational input). This reading is founded upon the parallel the novel constructs between a concrete virtual reality technology called the Hackle Maze and Manchester’s socio-physical (eco)system when it is under the dominion of AnnoDomino. In turn, I interpret *Nymphomation*’s development of this parallel as literalising the analogical connection that historical hacktivists make between computer systems and social systems. *Nymphomation*’s Mancunian society does not function *like* the Hackle Maze concrete virtual reality system, rather it *is* a version of the Hackle Maze concrete virtual reality system, just operating at a different scale. Thus, through its parallel of the Hackle Maze with Mancunian society (the AnnoDomino lottery simulation), *Nymphomation* suggests that feedback cycles define the relation between the components of Manchester’s socio-physical (eco)system. This constructs Manchester itself as a concrete virtual reality technology replete with specific hardware, software and mediating interfaces that the

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\(^{24}\) Ibid.

\(^{25}\) Ibid., 318.
Dark Fractals can hack in order to modify the feedback cycles that are degrading the city’s society and environment.

In reality, cybernetics fails to be an adequate model for predicting and controlling outputs in social systems because they are far more complex than computer systems. Hayles makes a similar point in her discussion of the development of cybernetic theory, where computer-only systems were in some instances taken to be analogues of human-computer systems. Given this limitation, it is important that I qualify my earlier comment regarding *Nymphomation* being a literary act of hacktivism, because it, too, is underpinned by the analogical application of cybernetic theory to a social system (text-reader-world). As a critical commentary on the dominant discourse of post-industrial capitalism, the novel can be seen as an aberrant input that encourages readers to evaluate their own reality—an output that has the potential to modify how readers interact with their socio-physical (eco)system. Understanding the novel’s effect according to this simplified feedback loop undermines the complexity of the reading process, which includes not only the fictional version of reality put forward in the text, but also the specificities of the reader and the socio-physical conditions within which the reader encounters the text. It is only when these various contingencies align in a particular way—for example, a reader, familiar with critical theory, encountering the novel amid “strange” weather events—that the text’s potential to be involved in modifying how a reader interacts with her or his socio-physical environment will be actualised as an a-signifying rupture, leading to the emergence of an ecosophic object. Therefore, I qualify my comment by suggesting that *Nymphomation* can be seen to function as a kind of literary ecosophical hacktivism involving the interaction of multiple, over-lapping feedback loops between text, reader and socio-physical environment.

Nonetheless, as a simplified model of reality, cybernetic processes (like literary constructions of “reality”) can draw attention to cause and effect relations that are otherwise difficult to perceive. My reading of *Nymphomation* highlights how its representation of cybernetic processes is productive in this way: one thing that is repeated through the novel’s parallel of the Hackle Maze and Mancunian society is the motif that immaterial inputs produce physical outputs that can be changed by modifying parts of the system. As a fictional construction of reality, I interpret *Nymphomation* as exploiting this simplified, cybernetic model of reality in order to develop its critique of the discourse of post-industrial capitalism as having negative impacts upon the physical environment.

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The Hackle Maze: A Description

The parallel between the Hackle Maze and Mancunian society constructs the former as a microcosm of the latter. The representation of the Hackle Maze foregrounds the workings of cybernetic feedback loops within simulated and virtual reality systems; these in turn, highlight the immaterial and physical as being in a relation of mutual influence. Therefore, I argue the representation of cybernetic processes at work in the Hackle Maze is one way Nymphomation interrogates conceptual separations between the immaterial and physical. Furthermore, because of the parallel the novel constructs between the Hackle Maze and Mancunian society, the cybernetic interconnections between the immaterial and physical featured in the former are represented as also governing the latter. In other words, through the Hackle Maze-Mancunian society parallel, Nymphomation represents the discourse of post-industrial capitalism (the immaterial) as being related to Manchester’s socio-physical environment (the physical) in terms of cybernetic feedback cycles that perpetuate environmental degradation. To elucidate how the novel constructs this parallel between the Hackle Maze and Mancunian society, it is first necessary to explain how the Hackle Maze relates to the novel’s primary narrative, as well as describe the maze itself. After introducing the salient aspects of the Hackle Maze, I will elaborate how the novel constructs the parallel between it and Mancunian society. Finally, I will discuss the significance of this for my reading of the novel’s ecological dimension.

The Hackle Maze is the centrepiece of the novel’s analeptic plot, which takes place between 1968 and 1979, approximately twenty to thirty years before the events of the novel’s diegesis. The Hackle Maze was developed as a concrete virtual reality system that simulated evolutionary processes. It was devised by a group calling themselves Number Gumbo, the members of which had been acquainted since childhood and who had all been students of Miss Sayer in junior school. In the main plot, Miss Sayer has become one half of the monstrous Sayer-Malthorpe creature that both produces AnnoDomino’s lottery tokens and programs the company’s blurbflies.27

27 As an aside, the Sayer-Malthorpe monster can be read as a critique of the English schooling system. Paul Malthorpe was one of Miss Sayer’s students. Their monstrous teacher-student amalgamation and enslavement by AnnoDomino suggests that the role of modern schooling is not to help enrich the intellectual and social development of children, as contemporary rhetoric would have it. Rather, the Sayer-Malthorpe factory monster suggests that the role of modern schooling is to produce the next generation of technically competent, but ultimately docile, workers who will perpetuate post-industrial capitalism. Indeed, the novel’s prologue also critiques English schooling by suggesting that the system favours mediocrity. Under Miss Sayer’s tutelage, “all but one of the children had scored marks above 78 percent. Such excellence was deemed unacceptable [by the government]” (Nymphomation 8). It seems Nymphomation does not see modern schools as the breeding ground of radical and progressive ideas, which the novel suggests are needed for lasting social and environmental improvements.
However, in the Hackle Maze subplot, Miss Sayer features in the various recollections of Number Gumbo members as they recall being in her class in 1949. Their stories reveal how she bestowed upon all but one of her students prodigious mathematical ability, teaching them the mathematics of probability using the game of dominoes, which is the historical game that AnnoDomino takes “its images and devices from” (48). The details of the Hackle Maze simulation and its similarities to the AnnoDomino lottery simulation are conveyed to the reader through the investigations of Daisy Love, a member of the Dark Fractals and the novel’s heroine. Incidentally, Daisy uncovers these details as she pursues leads into the “jealousy murders” and the relation of these murders to AnnoDomino. The “jealousy murders” refer to the murder of characters called “Lucky Bleeders,” players who have won AnnoDomino’s lottery multiple times. Daisy’s sources of information include: the recollections of her father, James/Jimmy Love, and her mathematics professor, Maximus/Max Hackle, who were both members of Number Gumbo and instrumental in the creation of the maze simulation; and also a journal called “Number Gumbo: A Mathemagical Grimoire” that contains articles discussing the theories and mathematics underpinning the maze.

The development of the Hackle Maze is described as occurring in several stages, and these descriptions are dispersed throughout the novel. Therefore, in order to develop this strand of my argument, my discussion will draw from and combine elements of the narrative that are non-sequential. Initially, the Hackle Maze is a game-like program that runs on a computer. As Daisy’s boyfriend Jazir notices, the Hackle Maze is a version of the historical artificial life simulation program “Game of Life,” which was designed by British mathematician John Horton Conway in 1970 (146). Like its real world counterpart, the Hackle Maze is a virtual “environment inside a hard drive” that works when “[y]ou set up a map [inside a computer,] . . . design some creatures to live in it, give them some basic rules, randomize the patterns and start the program. Evolution inside a computer” (146). The “game’s” features are simple: it is set in a labyrinth with characters called wanderers. The wanderers’ goal is to locate the centre of the maze, which is depicted as a “treasure chest, with coins and jewels spilling out” (254). The wanderers are programmed to gain “knowledge of the computer’s pathways” by learning from and improving upon their prior attempts to find the

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28 In this chapter, all in-text citations will refer to Jeff Noon’s Nymphomation.
treasure; that is, they learn through information feedback loops (254). The manner by which each wanderer learns to find the treasure is tracked and recorded by “info-gathering units” called agents, and this information is used by the Hackle Maze designers to make the labyrinth more challenging (254).

In time, the wanderers start to “adapt to the system ... [by] joining together, to make a single, more powerful entity” (255). Maximus notes that “[e]ach amalgam would have its own unique qualities that allowed it a different way of negotiating the maze”; he also notes that Number Gumbo named these “personality” types “Chancer, Casanova, Warrior, Seducer, Cartographer, Jester, Sheep and Shepherds, Builders and Backsliders” (255). At this stage of the maze’s development, the wanderers “started fighting each other for the privilege of the centre’s prize,” and the agents were also programmed to “look like insects, with wings” (255). Moreover, Number Gumbo decided to write and install a DNA program into the system. As a result, instead of the wanderers simply joining together, they began to mate and produce hybrid offspring—the process from which the novel takes its name, nymphomation. For example, the offspring of a Seducer and a Cartographer was a “seductive map-making creature, who charmed his way around the pathways, recording every twist and turn as he did so” (256). Thus, the DNA program adds another level of complexity to the feedback system because it enables mutation through reproduction.

Finally, the Hackle Maze program shifts from being a computer simulation that occurs wholly inside a computer to a virtual reality system that occurs between a human and a machine. This final stage of the maze’s development was prompted by the desire to “make the Hackle Maze real” (258). The virtual reality system involves both a physical labyrinth that was constructed in a deserted basement, and also the connection of a person to the computer system by wires. Human participants were associated with simulated wanderers in the Hackle Maze program, and by moving around the physical maze in the basement, the participants’ simulated wanderers would move around the virtual maze. The first human participant was a member of Number Gumbo called Georgie Horn. Significantly, Georgie is the only member of Number Gumbo and of Miss Sayer’s class not to have prodigious mathematical ability: he is instead characterised as a simpleton and assigned the nickname “blank-blank” (after the double-zero domino bone) (259-60). Despite his simple-mindedness, Georgie is represented as being excellent at “games of chance” and an expert at finding the prize at the centre of the maze when connected to the system:

[Maximus:] “his [Georgie’s] wanderer became a rampant Casanova of the system, loving the pathways.”

[Daisy:] “Which makes Georgie the original Lucky Bleeder.” (260)
While Georgie is connected to the system, he is killed by another member of Number Gumbo, Paul Malthorpe; but his avatar—the blank-blank wanderer—continues to exist in the system. After Georgie’s death, Number Gumbo disbands and abandons the Hackle Maze project.

**Constructing Manchester as a Concrete Virtual Reality System**

The novel develops the parallel between the Hackle Maze and the AnnoDomino lottery simulation by drawing explicit links between the two. For example, in a passage told in the third person, but privileging Daisy's perspective, the conclusions she draws from the edition of Number Gumbo she is reading points readers' attention to the similarities between the Hackle Maze and the AnnoDomino lottery simulation:

[t]here certainly seemed to be connections between the Nymphomation and the dominoes [AnnoDomino's lottery game]. For instance, perhaps the Casanovas were related to today's lucky bleeders. The Informants were maybe the precursors of the blurbys. The Trickster virus was obviously related to the Joker Bone [the lottery's booby prize]. (153)

Again, at the novel's climax, the connection between the Hackle Maze and the AnnoDomino lottery simulation is explicitly announced when AnnoDomino's chief executive officer, Adam Jagger, reveals that "[e]xpanding upon [Maximus'] own discoveries, [Paul Malthorpe, Miss Sayer and he] created this game [the AnnoDomino lottery], you see, the world's most powerful Hackle Maze" (349). Additionally, the narrative implies several more connections between the Hackle Maze and Manchester that are not explicitly stated. For instance, the treasure chest at the centre of the maze is paralleled with the coveted prize of "10 million lovelies" in AnnoDomino's lottery game (16); the wanderers who fight "each other for the privilege of the centre's prize" are the Mancunians whose behaviour becomes increasingly aggressive and competitive each lottery cycle (256); the nymphomation is the mutant advertisements born of the mating of blurbflies: "[a]s the blurbflies joined their bodies, mutating wild to fill the city with new, never-before-seen messages: Squeeza Teeza to win" (239); and Georgie's blank-blank wanderer is the "joker bone" booby prize of the lottery, the zero-zero domino bone.

These explicit and implicit connections between the maze and Manchester construct the city itself as operating as a concrete virtual reality system. The parallel casts Manchester's physical environment as the Hackle Maze labyrinth and the discourse of post-industrial capitalism as the virtual simulation that is experienced by
human users in the Hackle Maze—both “program” their respective human and automata wanderers to desire and compete for “gold coins.” The parallel also casts the haptic connection between domino tokens and players (that is, players holding the domino tokens), the visual connection between the televised lottery draw and the punters (that is, the punters watching the draw on television), and the auditory connection between the blurbflies’ advertisement and the Mancunians (that is, Mancunians listening to the blurbflies’ adverts) as the wire and computer screen interfaces that connect the humans to the simulation. The novel thus constructs Manchester as not only having general qualities of a concrete virtual reality system (for example, a generalised equivalence between virtuality and discourse), but also as having specific hardware, software and interface technologies that connect the immaterial and physical components of the system.

**Discursive Reality Shaping Nymphomation’s Fictional Representation of Physical Reality**

By hacking the specificities of these technologies, the Dark Fractals are shown to modify the operation of the entire system. In particular, by hacking the wording of the AnnoDomino blurbfly advertisement—that is, the specific form of the AnnoDomino lottery simulation’s interface—the Dark Fractals alter the functioning of Manchester’s (eco)system. The specific effect the “play to win” advertisement has upon Manchester’s (eco)system is as follows. Interacting with Manchester’s socio-physical (eco)system via the “play to win” interface, the Mancunians become addicted to playing the lottery, which changes or exacerbates their attitudes and behaviours so that greed and self-centredness become their distinguishing characteristics. This, in turn, affects the city’s physical environment: in particular, the streets become increasingly littered with the domino tokens discarded by the Mancunians. (How the “play to win” advertisement produces these behavioural and environmental effects, and their significance for my interest in ecosophy, will be discussed in detail in Section Two.) However, changing “play” to “dream” modifies the interface, which changes the effect the advertisement has on the system. Interacting with Manchester’s socio-physical (eco)system via the “dream to win” interface, the Mancunians are represented as being congenial towards each other and the city’s pollution problems dissipate. (Why the “dream to win” advertisement produces these behavioural and environmental effects and its relation to ecosophy will be argued in detail in Section Three.)

The novel suggests that by “hacking” the content of commercial mass media advertisements, not only can the values of post-industrial capitalism be exposed, but
also that the cultural/media space for alternative, more ecologically-accommodating, discourses be created. In other words, *Nymphomation* suggests that commercial mass media is a “code” that helps make the discourse of post-industrial capitalism possible and dominant. This code can be manipulated by re-directing the emphasis of its messages from being focused on consumerism and profit to being focused on creativity. According to the logic of the novel, this can then lead to broad and profound social and environmental benefits. Read in this way, the novel arguably puts forth a simple, single solution to a complex, multifaceted problem, which can be seen as undermining the subtle and profound interconnections that ecological thinking seeks to highlight. Nonetheless, insofar as the relationship between the content of corporate advertising in post-industrial capitalism and environmental degradation is pervasive and often only dimly perceptible, by suggesting that they are connected and by providing a framework for considering how one impacts upon the other, the novel offers a critical insight into the way such relationships play out in the author’s and readers’ realities.

Read in terms of the parallel of the Hackle Maze with Manchester under the dominion of the AnnoDomino lottery simulation, the feedback cycles emphasised in the Hackle Maze—which foreground immaterial information as impacting upon physical reality—frame how the relation between discourse (the immaterial) and the physical environment are related in the novel’s fictional reality. Firstly, within the virtual reality of the Hackle Maze itself, the wanderers are represented as being able to influence the topography of the maze. As the wanderers interact with the maze, they "learn" how to navigate it more effectively and efficiently, which leads to their ability to modify the maze itself. The “more they wandered the maze, the more they learned about it. They could then change their behaviour accordingly" (152). This, in turn, “chang[ed the] maze itself” (254): “[t]he more you [the wanderers] loved the maze, the more it moulded to your desires” (152). Thus, feedback cycles are constructed as the dominant means by which elements are related in the Hackle Maze. The wanderers, by interacting with the maze environment, are represented as gaining information about it, which changes how they behave in it. In response to the wanderers' changed behaviour, the maze environment also changes. This feedback cycle is on going and leads to the increasing complexity of the entire system. The description of how the Hackle Maze operates foregrounds that it is through the wanderers' interpretation of the "physical" environment of the maze—the information they receive from interacting with the virtual maze’s topography—that the maze's environment comes to be changed. Likewise, in Manchester’s (eco)system, the Mancunian “wanderers’” interaction with
the AnnoDomino lottery simulation transforms the city's physical environment (the streets become increasingly littered).

Secondly, the Hackle Maze's representation of human-machine interactions reinforces the notion that immaterial information and the physical environment are in a relation of mutual influence. Hayles notes that when humans are inscribed into concrete virtual reality systems, they "mutate into a new kind of form through emergent processes that evolve spontaneously through feedback loops between human and machine."\(^{30}\) When Georgie is connected to the Hackle Maze, both he and the maze are represented as "evolving" through the "feedback loop [that occurred] between Georgie in real life, and Blank-Blank [a wanderer] on the screen" (259). As Maximus notes, the effect of this connection was "a two-way process" (260). Georgie's effect upon the maze was "[a]stounding. Absolutely astounding" (259); as a Casanova, Georgie "loved the maze," which allowed him to mould it to his desires, enabling him to find the centre skilfully (260, 152). Likewise, the effect of interacting with the maze upon Georgie was equally striking: formerly dim-witted and non-sensual, "Georgie became more positive in real life, more vibrant and, dare I say it, more sexy" (260). Interestingly, the fact that Georgie is changed through his interactions with the Hackle Maze simulation points to the novel’s resistance of an instrumental conception of humans’ relation to technology. Foster notes that, according to the instrumental view, "technologies are tools whose use does not reciprocally transform the user in any fundamental way ... [whether] we control our tools or they control us, 'they' remain outside ‘us.’"\(^{31}\) In Nymphomation, however, Georgie’s interaction with the Hackle Maze is represented as leading to his transformation. The Hackle Maze is not shown to be outside of him, but rather part of him—just as he shapes it, it shapes him. Therefore, as well as highlighting the ways the physical (Georgie) and the immaterial (the maze simulation) are mutually influential, the representation of Georgie’s relation to the concrete virtual reality technology of the Hackle Maze also complicates the boundaries that maintain conceptual separations between the physical (the body) and the immaterial (the mind).

The representation of human-machine interactions in the Hackle Maze highlights that humans are transformed by interacting with the simulation, which in turn changes the maze’s environment. In the Hackle Maze, information is represented as being actively involved in producing change within both the physical (the human

\(^{30}\) Hayles, How We Became Posthuman. "Emergent processes" refers to a property of cybernetic systems. The term describes the emergence of outcomes that can only come about through the complex ways the elements of the system interact. W. Ross Ashby, An Introduction to Cybernetics (London: Chapman and Hall, 1956), 110–3.

\(^{31}\) Foster, The Souls of Cyberfolk, xii. This is also an idea central to the work of Hayles in How We Became Posthuman, and Code in Ecological Thinking.
participants) and immaterial (the maze simulation) components of the system. Similarly, in Manchester’s (eco)system, the Mancunians interaction with the AnnoDomino lottery simulation changes the way they behave towards each other and their physical environment.

For these reasons, Nymphomation's representation of hacktivism functions as a critical reflection upon the relation between discourse and physical reality. The novel’s paralleling of Manchester with the Hackle Maze simulation illuminates information-materiality and discourse-reality as being related via information feedback cycles—a change in one produces a change in the other. Furthermore, this parallel aligns the maze's simulated reality with the city’s discourse of post-industrial capitalism, so that the latter can be manipulated like the former. Finally, the parallel also constructs Manchester as having specific software, hardware and interfaces, which are "technologies" that require understanding and skill to hack. In Nymphomation, hacking the simulation-discourse of post-industrial capitalism is not simply a matter of becoming aware of its artificiality or constructedness, but instead is represented as a matter of skilfully manipulating the discourse through the subversion of its mouthpiece: commercial mass media advertising. The motif of hacktivism in Nymphomation foregrounds how the physical and immaterial elements of Manchester’s (eco)system are interconnected (via information feedback cycles), what principles govern the system (the discourse of post-industrial capitalism), the effects that these codes have on the system (environmental despoilment and social disharmony), and how the system can be modified to produce better social and environmental “outputs” (by altering the content of commercial mass media messages).

**Physical Reality Shaping Discursive Reality**

In addition to emphasising the influence of the immaterial (information and discourse) on the physical (body and environment), the novel also insists that the physical influences the immaterial: as with Georgie and the Hackle Maze simulation, the direction of influence between physical and discursive reality is represented as “a two-way process” (260). In particular, physical reality is represented as placing limits upon the extent to which discourse can influence and shape it.

This argument is tied to the ability of the Lucky Bleeders to influence the outcome of AnnoDomino’s lottery because of their genetic ability to engage with reality in a direct, pre-symbolic way (how the novel represents the notion of a pre-symbolic reality, as well as the Lucky Bleeders ability to access it will be discussed in detail below). The Lucky Bleeders’ propensity to win the lottery undermines the game’s rule
that “AnnoDomino will allow every player an equal chance at winning” (32). This is represented as threatening the lottery, firstly, by diminishing the integrity of the game—because it does not offer a fair and equal playing field, and secondly, by preventing the possibility of the lottery “going National”—in that the game is on trial in Manchester before the government will allow AnnoDomino “to introduce the dominoes to the whole of the United Kingdom” (16). This ultimately impedes the game’s ability to generate profit: the Lucky Bleeders’ increased chance of winning means that the company must pay out prizes more often; also, fewer players will play if they know the game is unfair; and finally, the company will not be able to expand into other markets without the approval of the government. The Lucky Bleeders, and the physical reality they have recourse to, can thus be read as frustrating the company’s ability to generate increasingly larger profits. That is, physical reality is represented as placing limits upon the profit imperative of the discourse of post-industrial capitalism.

AnnoDomino does attempt to mitigate the threat that the Lucky Bleeders’ unique engagement with physical reality poses to its profit margin. The company arranges to have the Lucky Bleeders murdered, which is conveyed to readers through a dialogue between Maximus and Daisy, when he is trying to convince her to join the Dark Fractals and investigate AnnoDomino. Maximus says to Daisy: “[i]f you were Mr Million, what would you do? Let them go on winning? No. Of course not. AnnoDomino would rather breed out the good luck. And that means killing the carriers” (126). (Interestingly, here, the novel’s ideological interests can be seen at work—by expressing this crucial plot point through Maximus’ sceptical point of view, readers are positioned to be likewise critical of the discourse of post-industrial capitalism for which AnnoDomino stands.) AnnoDomino’s “strategy” is to make physical reality conform to its discursive construction by eliminating the aspects of physical reality that do not “fit” its discursive model. However, on this point Nymphomation deploys poetic justice: the Dark Fractals’ investigation into the Lucky Bleeder murders is what leads to the demise of AnnoDomino—an event that is associated with the immediate improvement of Manchester’s society and environment. Reading the Lucky Bleeders as

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32 Donella H. Meadows, Jorgen Randers, and Dennis L. Meadows, members of the “Club of Rome,” a progressive think tank, put forward the notion of ecological limits in their report entitled *The Limits to Growth*. The Limits to Growth: The 30-Year Update. (London: Earthscan, 2004). Patrick Curry, ecocritic and environmental philosopher, neatly summarises their claims and their reception:

[the central idea in *The Limits to Growth*] is that there are natural limits to economic growth stemming from the fact of living in a physically finite world with ultimately limited resources; and that technological innovation, being subject to the same exigency can only go so far in postponing or mitigating those limits. Not surprisingly, since this contradicts the central belief of modernity in human ‘progress’ without limits, it is met with a mixture of fury, derision and passive resistance[.] ... The growth ideology of capitalism (and most socialism) felt under threat. *Ecological Ethics*, 231.
symbolic of physical reality and AnnoDomino as symbolic of the discourse of post-industrial capitalism, this final turn of events suggests the notion that when physical and discursive realities are brought head to head, it is discursive reality that must necessarily accommodate physical reality, or risk annihilation.

*Nymphomation* can thus be read as resisting the neoliberal notion that “endless growth is possible because there is no reality of finite resources.” As noted in the Introduction, this is a position that ecocritics Wendy Wheeler and Hugh Dunkerley suggest is supported by the idea that reality is *constructed in* discourse (rather than *mediated by* discourse). The Lucky Bleeders’ unique access to physical reality, which leads to the demise of the company and the discourse of post-industrial capitalism that it engenders, represents the finite limits that physical reality ultimately places upon a discursive reality that can shape it, but not replace it.

The Lucky Bleeders’ genetic ability to engage with reality in a direct, pre-symbolic way is central to the novel’s construction of a physical reality that places limits upon discursive reality. However, the construction of the Lucky Bleeders’ unique ability itself relies upon an aspect of the Hackle Maze and lottery game—its peculiar playing tokens—that has not yet been mentioned. In order to make this argument, I must briefly explain the special quality attributed to the lottery tokens, which, like descriptions of the Hackle Maze, is an explanation dispersed throughout the novel. Both the Hackle Maze subplot and AnnoDomino lottery main plot feature domino pieces that have dots which are “forever rearranging their silvery pips, due to some deep, hidden, random mechanism” (16). In the AnnoDomino lottery, the dots keep changing until the winning numbers “appear” in the weekly “draw”—in fact, the numbers are not literally drawn from a barrel, rather the random number generator stops for a few hours—at which time the players’ “lucky bones would solidify into a tight pattern” (16). If a player’s settled-number coincides with the settled-number displayed in the televised draw, then they win one of the weekly cash prizes (16). In the Hackle Maze subplot, on the other hand, the members of Number Gumbo play a typical game of dominoes, but with a domino set that has pieces with randomly changing dots (207). In Number Gumbo’s domino game, the dots on each piece keep changing until the piece is played, at which time the dots become fixed (208). Playing with the Number Gumbo lottery set requires players to react to the changing pieces very quickly, because they need to match and play the domino before its dots change (208).

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34 Ibid., 9–10.
The importance of these peculiar domino pieces for the novel’s plot is revealed at the climax. Firstly, the Dark Fractal’s discover that they can gain access to AnnoDomino’s database and control it by running a version of the Hackle Maze simulation while playing a game of dominoes using Number Gumbo’s special set. In other words, they can use the Number Gumbo dominoes to hack AnnoDomino.35 Secondly, the Dark Fractals discover that Lucky Bleeders have the propensity to influence which number the randomly changing dominoes rest upon. That is, when playing the traditional game of dominoes, the Lucky Bleeders do not need to react to the changing dots; instead, they can “will” the dots to change to the pattern of their choosing. Likewise, when playing AnnoDomino’s lottery, the Lucky Bleeders can influence which numbers the random generator settles upon, which is why they are more likely to win the lottery than other Mancunians. The Dark Fractals exploit the connection between the Hackle Maze and AnnoDomino, as well as the Lucky Bleeder’s special ability to control the peculiar domino tokens, in order to destroy AnnoDomino, which brings about the improved social and environmental conditions that mark the novel’s resolution.

Turning the focus of this analysis to the Lucky Bleeders, their special ability to influence the domino tokens is constructed through the difference between how they interact with “reality” and how other Mancunians do. The point of difference between the Lucky Bleeders and the rest of the Mancunians is that they are “in tune with the randomness of life” (276), which implies that, the Lucky Bleeders unlike other Mancunians, interact with reality in a way that does not impose patterns and rules upon it. In turn, the novel associates this characteristic with the Lucky Bleeders’ ability to “connect to the whole” (273). This is the “trick”—tuning-in to the randomness of life and therefore connecting to the whole—that allows them to influence the domino bones and the outcome of the weekly lottery draw (273). Significantly, this ability of the Lucky Bleeders’ is underpinned by their genetics; as Daisy remarks, when the meaning of “Lucky Bleeder” is first introduced in the novel, they are “natural-born winners” (126). In other words, connecting to the whole is not a skill that can be learned, but an ability one is born with. Interestingly, the novel sidesteps the strident biological determinism implied by the focus upon the Lucky Bleeders’ genetic makeup by noting that their ability to connect to the whole can be stymied by their socio-

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35 Incidentally, their control of the database disguises Jazir as he enters the company’s factory to “install” the “Theseus program” (322). This program was designed by Maximus to “seal [the] Hackle Maze” when “the wanderers would become too mutated, too powerful, [which would] bleed into the hard disk, crashing the whole thing” (322). By installing the Theseus program, the Dark Fractals prevent AnnoDomino from “crashing” the whole of Manchester’s ecosystem.
physical conditions: Jazir notes that “[b]ringing Celia [a Lucky Bleeder] in off the streets is the worst thing we could do. It’s stifling her [ability to connect to the whole]” (276). So while a character must have an inbuilt genetic propensity to connect to the whole in the first place, whether or not they actually can depends upon their socio-physical circumstances, which underscores Nymphomation’s insistence upon the notion that biology and culture are mutually constitutive. This, in turn, emphasises the physical (biology) and the immaterial (culture) as being interconnected, challenging the notion that they can be separated, and reinforcing the interconnectedness germane to ecological thinking.

In what follows, I will discuss the significance of the Lucky Bleeders’ special ability to influence the lottery tokens for my interest in the novel’s ecological dimension. Firstly, I will consider how the construction of the Lucky Bleeders, by evoking a two-tier model of reality, is suggestive of a physical reality that exists beyond discursive constructions of it. Secondly, by reference to Charles Sanders Peirce’s work on semiotics,36 which posits a tripartite model of reality, I will argue that the way the Lucky Bleeders engage with the novel’s construction of physical reality challenges the implied separation between “reality” and representation that attends the two-tier model. “Reality” and representation are thereby portrayed as interconnected and mutually constitutive. Finally, I will examine how the Lucky Bleeders stand as markers of ecological limits in the novel.

It is the Lucky Bleeders’ ability to tune in to the randomness of life, which underpins their ability to influence the lottery tokens, that is suggestive of a two-tier model of reality. The tier to which most Mancunians have access is orderly, and divided up according to patterns and rules, whereas the tier to which the Lucky Bleeders have access is random and whole. This representation of “reality” can be summarised in terms of the content-scheme model of reality. This model, which is often implicitly and explicitly invoked in philosophical discussions of reality, sees the “content” of reality as “a mass of undifferentiated stuff,” and “scheme” (or language) as the concepts used to organise it in meaningful ways.37 Philosopher William Child summarises the concept of “content” and its relation to “scheme” as follows:

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36 In his monograph on Peirce’s work, T. L. Short notes that Peirce’s theory of signs is substantially different from the “semiotics” movement that “originated in Europe independently of Peirce.” Peirce’s Theory of Signs (Cambridge: Cambridge University Press, 2007), 1. As will be outlined below, whereas European semiotics, founded by Ferdinand de Saussure, is based upon a two-tier model of “reality” (signifier/signified), Peirce’s theory of signs is based upon a tripartite model (firstness, secondness and thirdness).

[the content] idea is that the world is completely unstructured; a bare something [physical reality]. ... So no description or conception of the world can characterise the world as it is in itself [in its totality or wholeness]. Any description must be structured, for it must exploit concepts and categories. And since the world itself is unstructured, there is bound to be some distortion when we represent it in thought or language [discursive reality]. A different version of the same view allows that the world has an intrinsic structure, but agrees that no description or conception can capture the world as it really is, without distortion. Any conception we can form is shaped by our capacities and interests; so it cannot reflect the objective structure of the world, the structure which the world has absolutely independent of us.\(^{38}\)

In other words, content is the “reality” that exists whether or not beings capable of symbolic thought or language are there to represent it as scheme. The novel’s depiction of the randomness and wholeness to which the Lucky Bleeders have access resonates with the qualities attributed to the “content” tier of reality. The notion of randomness is likewise unstructured, and the idea of being able to connect to the whole suggests an undifferentiated “reality.” Through this characterisation of the level of “reality” to which the Lucky Bleeders have access, *Nymphomation* posits the existence of a physical reality in its fictional world that is independent of the discursive structures used to represent it.

While the novel suggests the existence of a physical reality through its evocation of a content-scheme model of reality, it nonetheless resists the conceptual separation between representation and “reality” that such an understanding lends itself to.\(^{39}\) The Lucky Bleeders mediate between this undifferentiated, physical reality, and a differentiated, discursive reality using non-linguistic means. Lucky Bleeders influence the outcome of the lottery via a deeply-felt and unarticulated desire: “[t]here was only one way the Lucky Bleeders could affect the [domino] bones, that was by holding them. ... Something was coming out of Celia, through the skin, and seeping into the bone” (196). Lucky Bleeders influence the numbers on their domino bones through

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philosophy include Immanuel Kant’s noumenon/phenomena, Karl Marx’ base/superstructure, Ferdinand de Saussure’s signified/signifier, Sigmund Freud’s subconscious/conscious and Jacques Lacan’s pre-symbolic/symbolic.

\(^{38}\) Ibid.

\(^{39}\) See, for example, my discussion of Jean Baudrillard’s theory of hyperreality in Chapter Two, Section Two. I consider Baudrillard’s hyperreality as an extension of Saussure’s two-tier model of “reality,” which is based upon the distinction of signifier from signified, and I argue that it represents an extreme example of the severing of word from world that such a model of reality can be used to justify.
their physical contact with them. Importantly, another trait ascribed to Lucky Bleeders is that they are “wild, innocent, mad” (273). This is noteworthy because, returning briefly to eco-philosopher Val Plumwood’s discussion of dualism outlined in the Introduction, considered as derivations of the overarching reason/nature dualism, wildness, innocence and madness are concepts associated with “nature,” rather than reason, which is associated with rationality and the symbolic. The Lucky Bleeders’ ability to mediate between pre-symbolic and discursive realities via non-discursive means suggests that in _Nymphomation_ the content-scheme boundary, which conceptually separates representation from “reality,” can and is transgressed through non-/pre-rational experience.

Peirce’s notion of the triadic structure of “reality” (what he calls the phaneroscopy) is useful for considering the Lucky Bleeders’ experience of randomness and the notion of ecological interconnectedness. This is because, firstly, it also challenges conceptual separations between “reality” and representation (signs), and, secondly, it assigns pre-symbolic experiences an important function in the meaning-making process. The phaneroscopy offers a lens through which to understand how the Lucky Bleeders’ physical contact with the domino bones mediates between a physical reality that is undifferentiated and a discursive reality that is differentiated. Peirce describes the phaneroscopy, which he takes to include both physical and immaterial entities, in terms of qualities which he calls “firstness,” “secondness,” and “thirdness.” Peirce’s description of firstness is similar to the notion of “content” as undifferentiated reality: it is the quality of existence in-itself, it is eternal and not mind-dependent. As such, firstness exists only in a state of potentiality. Secondness, on the other hand, is the quality of actuality: it arises out of the particular relation

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40 Plumwood, _Feminism and the Mastery of Nature_, 41–4. Interestingly, the linking postulates at work here are as follows: the postulate that the Lucky Bleeders are “wild” ties to the wild/civilised pair, that they are “innocent” ties to the innocent/experienced pair (and, by transitivity, the child/adult pair), that they are “mad” ties to the mad/rational pair, each of which maps onto the nature/reason pair.

41 Ibid., 76.

42 Ibid.


44 Ibid., 76.

45 Ibid.
between two phenomena as it is experienced, not as it rationalised.\textsuperscript{46} The quality of secondness is thus personal, highly contingent and borne out in each moment the relation is actualised. Thirdness, finally, is the quality of law and convention. It emerges when the relation between two phenomena (secondness) is governed by a pattern used to predict future actualities: thirdness “consists in the fact that future facts of Secondness will take on a determinate general character.”\textsuperscript{47} For Peirce, firstness, secondness, and thirdness are distinct yet interrelated qualities of reality:

\begin{quote}
[w]e must not consider whether it [firstness] exists, or is only imaginary, because existence depends on its subject having a place in the general system of the universe. An element separated from everything else and in no world but itself, may be said, when we come to reflect upon its isolation, to be merely potential. But we must not even attend to any determinate absence of other things; we are to consider the total as a unit. ... The quality is what presents itself in the monastic aspect.\textsuperscript{48}
\end{quote}

That is, while the qualities of firstness, secondness, and thirdness can be teased apart for the sake of understanding, Peirce is careful to insist that they are never actually independent of each other. Therefore, unlike two-tier content-scheme models of reality, Peirce’s tripartite model of reality places the interaction of representations (signs) and physical reality at the centre of the meaning-making process, which emphasises the interconnectedness of the immaterial and the physical.

Read through Peirce’s framework, which is conducive to the notion of ecological thinking, the Lucky Bleeders’ talent lies in their ability to elevate the experience of secondness over the rationalist conventions of thirdness. Lucky Bleeders privilege embodied desire over linguistic convention. This becomes especially evident at the novel’s climax, through the revelation of Daisy’s hitherto latent Lucky Bleeder abilities. Daisy and her father Jimmy are the Dark Fractal members who play with Number Gumbo’s special domino set in order to hack AnnoDomino’s database. Daisy and Jimmy have played dominoes together using a regular set since Daisy was a child, with Jimmy winning every match. This scene depicts Daisy’s first experience playing with the special domino pieces, and she is initially unable to use them:

\begin{quote}
Daisy played, even though the bone she chose kept changing every second, even as she placed it down. It started out as the double-five and ended up as the two-one.
\end{quote}

\textsuperscript{46} Ibid., 77.
\textsuperscript{47} Ibid.
\textsuperscript{48} Ibid., 87.
Jimmy: “No good. You need a double. Let me ...”

Daisy’s father slammed down a bone, which flickered for a moment, and then came up double-five. Daisy tried to match it, but was too slow. (339).

Jimmy gives Daisy the following instructions regarding how to play with the special pieces: “Faster. Don’t think. Just play” (339). Following these instructions, Daisy becomes able to influence the numbers on the face of the domino:

“Six-zero,” she said, out of nowhere. And was amazed as the bone in her hand changed and stopped on that very pair of numbers. “How did I ... how did I do that?”


Having hit upon the technique, Daisy’s skill increases allowing her to “effortless[ly]” play the “random bone[s]” (350), until finally she wins the game, allowing the Theseus program to be released (354).

In this example, Daisy is able to play and win using the random domino bones when she forgoes trying to play according to conventional strategies. When she stops trying to consciously and deliberately match the numbers on the dominoes in her hand to the numbers on the dominoes already played, she becomes able to play the game successfully. The random number displays on the dominoes—which can be read as a manifestation of the “randomness” of un-mediated reality—frustrate her ability to use conventional and symbolic strategies to negotiate game play. Instead, once Daisy dispenses with convention and rationality (thirdness) and is guided by her intuition and direct relation with the ever changing face of a domino piece (secondness) she becomes able to effectively mediate between physical and discursive reality.

In other words, Daisy has success when she stops trying to make actualities (the relation between firstness and secondness) conform to conventions (thirdness), and instead instigates new and alternative conventions (her intuitive “predictions”) based upon her direct experience of her relation to the domino piece. Daisy’s ability to play the random domino bones by “intuition” challenges the notion that reality is constructed only in discourse, because it suggests that the discursive conventions that govern and mediate her relation to undifferentiated reality (at some point) intersect and engage with a direct experience of this level of reality. Furthermore, Daisy’s newfound ability to engage “intuitively” with undifferentiated reality is coupled with the release of the Theseus program, which leads to the destruction of AnnoDomino and the restoration of Manchester’s socio-physical environment. Nymphomation, by coupling these events in a cause-and-effect relationship, suggests not only the novel’s investment in the existence of a pre-symbolic reality, but also the capacity of such a
“content” level of reality to interfere with and place limits upon discursive constructions of it.

In short, the eco-project *Nymphomation* stages through the Dark Fractals’ hacktivism is founded upon the following relation between the immaterial (the AnnoDomino lottery simulation and the discourse of post-industrial capitalism), and the physical (Manchester’s environment). On the one hand, the immaterial is shown to shape the city’s society and environment: when the discourse of post-industrial capitalism is dominant, the city is plagued by environmental pollution and social disharmony; and when the discourse of post-industrial capitalism is dethroned and replaced by another discourse that encourages creativity, the city’s environment improves and social cohesion returns. On the other hand, physical reality is shown to limit the discourse of post-industrial capitalism: the Lucky Bleeders unique access to physical reality threatens the “proper” running of the AnnoDomino lottery simulation, and the company’s attempts to eliminate the existence of the Lucky Bleeders from physical reality results in AnnoDomino’s demise. Through the parallel the novel constructs between the Hackle Maze and Manchester’s (eco)system, *Nymphomation* foregrounds discourse and physical reality to be mutually constitutive, and suggests that discourses can and should be “hacked” to create better socio-physical realities.

**Section Two: Blurbflies**

In this section I will focus on the blurbflies and the televised lottery draw. As I noted in Section One, according to the hacktivist motif developed in the novel, the blurbflies are interfaces connecting the Mancunians to the AnnoDomino lottery simulation, which itself engenders the discourses of individualism, consumerism and post-industrial capitalism. I will argue in this Section that the particular way the blurbflies connect the Mancunians to the socio-physical environment of the AnnoDomino lottery simulation is represented as leading to increased pollution in the city and the exacerbation of social inequality. I will also consider how the novel represents the blurbflies as pollutants themselves, and the significance of this for my reading of the novel as highlighting connections between post-industrial capitalism and environmental degradation.

Blurbflies is a pun on the word “blurb.” Like the blurb of a book or film, the blurbflies’ purpose is to promote a product, the AnnoDomino lottery game. However, in *Nymphomation*, “blurb” also functions as an acronym: B.L.U.R.B.S. stands for “Bio-
Logical-Ultra-Robotic-Broadcasting-System” (76). These Bio-Logical Robotic devices are encased in insect-shaped bodies, making them ultra-mobile as well. The blurbflies broadcast AnnoDomino’s “play to win” advertisement by flying around the streets of Manchester, “buzzing their adverts alive and direct to the punters” (75). For the environmental interests of this thesis, the blurbflies are especially interesting because they are represented as pollutants. Ecocritic Greg Garrard notes that “‘pollution’ ... does not name a substance or class of substances, but rather represents an implicit normative claim that too much of something is present in the environment, usually in the wrong place.” Indeed, such is the case in Nymphomation’s Manchester, where there are too many blurbflies. Because the blurbflies can breed, and because they have no predators, blurbfly numbers quickly reach plague proportions: “so many [blurbflies] adverts now clogged up the streets, it was like living in blurbsoup” (113). Moreover, the novel highlights that the explosion of blurbflies brings with it another kind of pollution: “a corporate fog of brand images ... [the Mancunians] had to battle through” (240). Captured in this construction of the blurbflies are two senses of the term “sign.” The blurbflies are signs in the sense of being objects bearing a notice: for example, a physical sign such as a billboard. Also, the blurbflies are signs in the sense of being units of meaning in a semiotic system: for example, linguistic signs such as the advertising message that a billboard bears. The "substances" that the blurbflies represent too much of are signs. Therefore, I interpret the blurbflies as causing and being symbolic of sign pollution. As material signs, they pollute Manchester’s skies with their physical presence; as linguistic signs, they “pollute” the Mancunians’ minds with their corporate advertisements.

The novel suggests that the “play to win” advertisement, as a linguistic sign, is the more insidious of the two senses of sign pollution. This advertisement is depicted as transforming Manchester’s society and the Mancunians’ subjectivity so that both “work” for the profit goals of AnnoDomino, rather than for the needs of the individual or the public good. "Play to win" does this through its over-emphasis of the value and social significance of personal wealth, which diminishes the importance of collective action and the value of caring for the human and nonhuman other. This, in turn, is

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49 As an aside: reading Nymphomation in 2014, in the description of the blurbflies I find a clear resonance with my smart phone. While my smartphone is not insect-shaped and does not fly, it is ultra-mobile, accompanying me almost everywhere I go, and the buzzing of its notifications does regularly take me to social networking sites filled with advertisements targeted at my demographic profile. For me, the blurbflies offer a point of reflection on the ways my smartphone operates as an interface connecting me to the virtual space of the internet. Nymphomation’s representation of the blurbflies reminds me to be mindful and critical of the corporate-sponsored advertisements that confront me on the Internet, and also of my smartphone handset itself—where it came from, how long I will have it, and what I will do with it when I no longer want it.

50 Garrard, Ecocriticism, 6.
associated with the continual worsening of Manchester’s social and environmental conditions while the AnnoDomino lottery simulation is running. In terms of my reading of the novel's ecologically-oriented ethics, the blurbflies’ representation as sign pollution productively frames how advertising and post-industrial capitalism are foregrounded in the novel as driving the degradation of Manchester’s socio-physical environment.

**Consumerism**

*Nymphomation* represents the blurbflies as contributing to Manchester's pollution through their promotion of the cycle of mass-production, over-consumption and mass-waste. According to the “play to win” advertising campaign, in order to be a “winner,” Mancunians must play the lottery game; and to be able to play the game, the Mancunians must buy a lottery token. As the lottery is (ostensibly) a game of chance, buying more than one token is redundant—a point which is clearly underscored for the reader when Daisy tells Jazir: “[f]ive is no more lucky than one ... [it's] the gambler’s fallacy” (32). However, insofar as the “play to win” campaign aligns playing with buying and buying with winning, the blurbflies’ advertisement obfuscates the gambler's fallacy. Instead, this advertisement encourages the Mancunians to over-consume lottery tokens. While this does not increase the Mancunians’ chance of winning, it does increase the company's profits. In other words, the “play to win” advertisement persuades the Mancunians to “work” for the profit goals of AnnoDomino, rather than for their own interests.

The Mancunians over-consumption of lottery tokens, which is driven by the blurbflies' advertisement, is associated with the creation of land pollution through the production of excessive waste. The omniscient narrator draws readers’ attention to this fact of *Nymphomation*’s fictional world towards the novel’s climax: “[t]he pavements were tightly packed with discarded creamed bones [losing lottery tokens]. A second pavement that crunched underfoot a second road that cracked under tyres, but never broke” (284). Interestingly, the description of the discarded tokens as creating a second pavement and a second road is suggestive of layers of sedimentation. The “old,” industrial, socialist Manchester has become buried under the “new,” post-industrial, privatised Manchester.51 Post-industrial Manchester is constructed as ill-fitted to the city given that it cracks and crunches under the weight of the Mancunians and their vehicles. Nonetheless, any hope that its façade, which “glisten[s] ... in the

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gentle sun,” will shatter and allow “old” Manchester to re-emerge is foreclosed in Noon's fictional version of the city because, despite the apparent fragility of this façade, it never breaks. By persuading Mancunians to over-consume lottery tokens, the blurbflies’ sign pollution is shown to drive land pollution.

**Capitalist Subjectivity and Order-Words**

In addition to promoting consumerism and driving the cycle of mass-production, over-consumption and mass-waste, the “play to win” advertisement also perpetuates capitalist subjectivity (which will be explained below) through its valorisation of personal wealth. In *Nymphomation*, capitalist subjectivity is represented as undermining the Mancunians’ ability to care about the welfare of the other, especially the poor and homeless. In terms of the novel’s eco-dimension, this is significant because of its relation to Jazir, a member of the Dark Fractals whose actions lead to the successful hacking of AnnoDomino and the restoration of Manchester’s environment. Jazir’s character development sees him transform from an entrepreneurial capitalist bent on exploiting the nonhuman other for profit to a social-environmental activist interested in pursuing justice for the nonhuman other. That is, Jazir embodies a transformation from a capitalist subjectivity to an ecologically-oriented subjectivity. I will argue in Section Four that, through Jazir’s character, the novel suggests that, if social and environmental conditions are to be improved, the capitalist subjectivity the “play to win” advertisement promotes must be resisted. Therefore, the novel indirectly links capitalist subjectivity to environmental degradation via its suggestion that this model of subjectivity impedes individuals’ ability to care about the welfare of the human and nonhuman other.

Before further elaborating my analysis of the blurbflies’ “play to win” advertisement, it is necessary to discuss the notion of capitalist subjectivity and its relation to post-industrial capitalism. I derive the notion of capitalist subjectivity from Guattari’s discussion of the idea in *The Three Ecologies*. I am interested in this particular model of subjectivity because it permits me to consider the novel’s depiction of the connection between AnnoDomino’s lottery marketing and environmental degradation via the influence of the blurbflies’ advertising over the Mancunians’ values. Guattari contends that “capitalist power has become delocalised, ... both in extension, by extending its influence over the whole social, economic and cultural life of the planet.
and in ‘intension,’ by infiltrating the most unconscious subjective strata.”

To put it differently, subjects internalise the profit imperative of capitalism so that competing for and accumulating personal wealth is understood as the only possible and “natural” way of being human and relating to the world. One way this manifests is through a competitive individualism that is geared towards the amassing of capital, personal wealth. Insofar as the “play to win” advertisement is implicated in the production of capitalist subjectivity, an analysis of the blurbflies reveals the more subtle but profound ways Nymphomation can be read as suggesting that post-industrial capitalism impacts upon the condition of socio-physical environments, beyond its promotion of consumerism.

Deleuze’s and Guattari’s notion of order-words provides an account of the process by which subjects come to internalise the values of post-industrial capitalism. Order-words are “very short phrases that command life and are inseparable from enterprises and large-scale projects.”

Deleuze and Guattari argue that residing in every act of communication are commands: “language is made not to be believed but to be obeyed, and to compel obedience.”

They claim that the command function of language can be seen clearly in the language used by teachers in the classroom, the speeches of politicians, and the stories in newspapers; such communications, they maintain, “tell us what we ‘must’ think, retain, expect, etc.”

For example, Deleuze and Guattari contend that the “compulsory education machine does not communicate information; it imposes upon the child semiotic coordinates possessing all of the dual foundations of grammar (masculine-feminine, singular-plural, noun-verb, subject of the statement-subject of enunciation, etc.).” Therefore, “[w]hen the schoolmistress instructs her students on a rule of grammar or arithmetic, … [s]he does not so much instruct as ‘insign,’ give orders or commands.”

That is to say, whether or not a statement is in the imperative mood, words structure (which is one nuance of “order”) how we relate to the world, and in doing so command (another nuance of “order”) us to understand the world through the structuring relations words and statements inculcate. Significantly, for Guattari, post-industrial capitalism aids the production of capitalist subjectivity because, as it moves “away from structures producing goods and

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52 Guattari, The Three Ecologies, 50.
54 Ibid.
55 Ibid., 75–9.
56 Ibid., 79.
57 Ibid., 75.
58 Ibid., 76.
services,” it moves “towards structures producing signs, syntax and—in particular, through the control which it exercises over the media, advertising, opinion polls, etc.—subjectivity.”\textsuperscript{59} That is, post-industrial capitalism is involved in the production of order-words.

When read in terms of these ideas, the “play to win” advertisement can be understood as representative of an order-word. It is a very short phrase that commands the Mancunians to play the lottery, and is inseparable from AnnoDomino’s enterprise to generate profit. Embedded within its command to play the lottery are a variety of other values consistent with capitalist subjectivity to which I will now turn. As the “play to win” advertisement equates “playing” with “buying,” so does it equate “winning” with the accumulation of wealth. What is particularly interesting about the “play to win” advertising campaign is that it sells the lottery by presenting wealth as an end that is sufficiently desirable in and of itself. Typically, lottery advertisements entice players to take part in the game by suggesting that their potential winnings will afford them a luxurious lifestyle, allowing them to buy all that they need and want. In such an advertising campaign, money is presented as a means to an end: money is used to buy goods and services (which are themselves often represented as the means to acquiring the end of happiness). The “play to win” advertisement, on the other hand, does not offer any suggestions regarding how players could spend their winnings. Rather, the “play to win” advertisement entices players to take part in the lottery by suggesting no more than that the winnings will add to the player’s personal wealth. Money as a sign of success is the value promoted by the blurbflies’ “play to win” order-words.

Moreover, the novel suggests that the association between the accumulation of personal wealth and winning is that personal wealth becomes the dominant marker of a subject’s identity. The amount of wealth one possesses stakes out their place within Manchester’s social hierarchy: an abundance of personal wealth confers on an individual a “posh” identity (89); whereas a lack of personal wealth confers on the individual the identity of “poor” (12). The “play to win” order-words thus perpetuate a value system that provides the coordinates through which subjectivity is understood. This value system, which assigns identity and worth according to wealth, can be seen as the imposition of AnnoDomino’s corporate values onto Manchester and its citizens. AnnoDomino’s status and value, as a company, are largely determined by its profits. That is, the company’s ability to generate wealth is the standard against which its value is measured. Insofar as the “play to win” order-words promote the accumulation of personal wealth as the measure of a subject’s identity, \textit{Nymphomation} suggests that the

\textsuperscript{59} Guattari, \textit{The Three Ecologies}, 47.
blurbleflies' order-words mould the subjectivity of the Mancunians after AnnoDomino’s own image.

Additionally, as wealth is a relative system, if a subject shares their personal wealth with someone with less money, they diminish their own position—to which their identity is tied—within the social hierarchy. Therefore, this value system encourages individuals to hoard the wealth they do have and compete with each other to procure more wealth in order to improve their social standing and protect their culturally-empowered identity. In this capitalist model of subjectivity, wealth is a symbolic unit through which a subject’s social identity is negotiated: the value of wealth does not lie in its capacity to buy goods so much as it lies in its capacity to signify one’s social status and identity. In short, as order-words, the “play to win” advertisement perpetuates capitalist subjectivity through its valorisation of personal wealth, which is inscribed as the preeminent measure of a subject’s value and identity. This negatively impacts upon the welfare of the other, because it encourages the Mancunians to compete with each other, dissuading them from sharing their wealth with the economically marginalised.

One scene in which these ideas play out occurs in a bookstore where Daisy works part-time on Saturday mornings, the day after the televised lottery draw. In this scene, which occurs shortly before Maximus convinces Daisy to join the Dark Fractals, Daisy’s generosity and the abject poverty of Celia (who at this early stage in the novel is a homeless child) are juxtaposed with the greed of a rich customer. This juxtaposition foregrounds the novel’s alignment of the over-valorisation of wealth, which is driven by the blurbleflies’ “play to win” order-words, with the production of a capitalist subjectivity and the negative impact this has upon social relations.

Throughout the novel, Daisy is characterised as a poor student who barely has enough money to afford meagre food and accommodations (12). Nonetheless, despite her relative poverty, she gives “ill-afforded” money to Celia every week because she is “so guilty about her own wasting of good money on the bones [the lottery]” (78). She also shares her money with Celia because “she felt an affinity with her; another young runaway, no doubt. Because Daisy had made the same escape” (78). By contrast, the rich customer is characterised as a “leopard-skinned posh” woman who is miserly with her money (89). Despite the woman being “[t]oo posh to care a job about money,” she has come to the bookstore to demand a refund (91). In the previous week she had bought the “latest guide to winning the bones” (89), but even though she followed its advice, she did not win a lottery prize. Outraged at what she perceives to be “fraud”—“I was guaranteed a winning by this book”—she insists upon being refunded for the cost.
of the book and the cost of the tokens she wagered on the lottery (90). Immediately after the woman receives her refund from the store's negatively characterised manager—he is a “drawling,” “slurring” and “stuttering” man, whose “tongue lolled, outwards and upwards, to lick his greasy forelock” as he apologetically complies with the customer’s request—Celia bursts into the bookstore (91). Celia pushes the customer aside and asks Daisy for help, which Daisy offers without seeking any recompense.

There are two salient points to be made about Daisy’s characterisation in this scene. Firstly, while Daisy’s lack of money marks her as poor, Daisy herself primarily relates to money as a thing that can be used to acquire basic necessities for survival, a point to which readers are alerted when they first encounter her character in the novel:

Daisy could ration herself to a single onion bhaji or a lonely poppadom, or even a foolhardy golden samosa, but a raging, full-on Rogan Josh with Pilau Technicolour Rice? Leave it out. Way beyond her means. (12)

This underscores that, in sharing her money with Celia, who is “[h]ungry and dreamless” (78), Daisy’s focus is not upon her own position in the social hierarchy, but rather upon the child having enough money to buy food (and also her own guilt for squandering money on entertainment).

Secondly, the affinity Daisy feels towards Celia resonates with a notion put forward by feminist philosopher Lorraine Code, whose work in Ecological Thinking, as outlined in the Introduction, is interested in considering how to know the (human and nonhuman) other responsibly and well via imaginative knowing.60 In the scene from Nymphomation under consideration, which is narrated in the third person from Daisy’s privileged perspective, Celia is the other that Daisy comes to know and act responsibly towards. Daisy draws on her own experience of running away from home to imagine the situation of the other, which also underpins her desire to help Celia. Through this imaginative knowing, Daisy is shown to view the world through the position of other, which, as will become apparent in the discussion of the bookstore customer below, is an ecological (other-oriented) perspective that differs substantially from the dominant capitalist (self-centered) perspective that is a characteristic of the majority of the novel’s Mancunians. In short, Daisy is willing to share her money because she primarily sees it as a means to acquiring basic needs rather than social status, and because her life experiences help her to empathise with the other.

60 Code, Ecological Thinking, 206–13. As noted in the Introduction, Code maintains that “[i]magination [helps to make feasible attempts] to think one’s way into the situations of differently situated Others, including ... the marginalised, the otherwise damaged; and not just for the sake of it but to attempt to undo some of the damage enacted by often-coercive presumptions of sameness.” Ibid., 207.
The customer's characterisation, by contrast, reproduces a capitalist subjectivity and suggests three instructive points for this discussion. Firstly, because the customer is already rich, the function of money as a means to obtaining basic needs and wants is secondary to its function as a way of securing her “posh” identity. The woman does not need to win a prize in the lottery in order to procure food and shelter; rather, she participates in the lottery because of the “sweet whispers” of the blurbflies' order-words that encourage her to desire wealth and suggest that its accumulation is synonymous with success and social status (12). Secondly, the customer's small financial, but large emotional, investment in the game, results in the misdirection of her indignation. She projects her frustration at not winning a lottery prize onto the bookstore's service staff—who, according to the value system the blurbflies' “play to win” order-words inculcate, are her social inferiors—rather than onto AnnoDomino for generating her desire for excessive wealth in the first place. Finally, the woman's negative portrayal and the anger her self-entitlement arouses in the novel's heroine Daisy—at one point Daisy refers to the woman as a “fucking nightmare” (91)—reveals the novel's critique of the capitalist subjectivity the woman represents. Indeed, through such oppositional characterisation, the novel's ideological interests become apparent—the novel's “villains” are selfish and greedily hoard their money; whereas Nymphomation's heroes share what little wealth they have to improve the lives of others.

The juxtaposition of Daisy's generosity and the customer's greed in this scene draws out the social impact the novel associates with the blurbflies' “play to win” order-words. The effect of these order-words' manifest in the capitalist subjectivity the customer is constructed as embodying. Her identity is primarily expressed through her wealth; she is a “posh woman” who is otherwise nameless. She is focused upon accumulating more personal wealth even though she is already rich, as exemplified by her desire to win a lottery prize. Finally, whereas Daisy accepts her loss at the weekly lottery and generously donates to the homeless, the customer demands recompense for money she lost on the lottery: money she does not need for survival. For the reader, the wholly and blatantly negative portrayal of the customer de-naturalises the capitalist subjectivity she represents and draws attention to the role that AnnoDomino, particularly through its advertising, has played in shaping her subjectivity.
Neutralising Contesting Discourses

The bookstore scene is also interesting for the way it demonstrates the novel’s division of the Mancunians into two groups: the “masses” and the “marginalised.” The masses, of which the customer is an example, are portrayed as being unable to resist the ideas, values and subjectivity engendered by the “play to win” order-words. They are also all represented as being from the middle- and upper-classes. By contrast, the marginalised, of which Daisy, Celia and the other members of the Dark Fractals are examples, are portrayed as being able to resist AnnoDomino’s order-words. They also all hail from groups that have traditionally been marginalised in the west, including migrants, blacks, gays, and the poor. This stark division draws attention to the novel’s alignment of relative economic privilege with a lack of critical agency on the one hand, and social and economic marginalisation with heightened critical agency on the other. In Section Four, I will discuss how the novel constructs marginalised subjects as possessed of more critical agency in my detailed discussion of Jazir. Here I will focus upon how the novel envisions AnnoDomino as being able to manipulate the masses through its control of media “order-words.” This is of interest for my ecologically-oriented interests because, within the novel’s fictional version of reality, the effect AnnoDomino’s advertising has on the Mancunian masses is that it disinclines them from caring about the human and nonhuman other, resulting in the deterioration of social relations and the physical environment.

Two additional components of Guattari’s argument regarding capitalist subjectivity are useful for considering my reading of the novel’s construction of AnnoDomino as manipulating the masses via the blurbflies’ order-words. Firstly, Guattari maintains that capitalist subjectivity has become the dominant model of subjectivity in the late-twentieth century because “[i]t demands that all singularity must be either evaded or crushed.” For Guattari:

‘singularity’ denotes both the points at which systems may mutate and also the opposite of standardisation or Sartrean seriality; ‘singularisation’ denotes a bifurcation toward creative complexity. For progressives who advocate for

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61 For discussion of the strengths and problems associated with promoting marginalised subjectivities as political agents capable of resisting oppressive norms see Haraway, *Simians, Cyborgs, and Women*, 342–3.

radical democracy, political hope lies in those social mutations that allow for a maximum of subjective singularisation.\textsuperscript{63}

By contrast, “[c]apitalist subjectivity seeks to gain power by controlling and neutralising the maximum number of existential refrains.”\textsuperscript{64} In other words, capitalist subjectivity excludes or subsumes value systems that do not support a status quo that facilitates the generation of profit. Like a good little capitalist, this subjectivity squeezes and buys out competing subjectivities until it dominates and controls the subjectivity-marketplace.

Secondly, following Gregory Bateson’s extended theory of “mind,”\textsuperscript{65} Guattari suggests that “the ‘ecology of ideas’ [Bateson’s term] cannot be contained within the domain of the psychology of the individual, but organises itself into systems of ‘minds,’ the boundaries of which no longer coincide with the participant individuals.”\textsuperscript{66} That is, for Guattari and Bateson, subjectivity should not be thought of as somehow separate from its socio-physical context, as an entity contained by the epidermis that is only incidentally affected by the society and environment in which it exists.\textsuperscript{67} Rather, it should be conceived as the totality of the reciprocal interactions between a subject and its social and physical environment.\textsuperscript{68} According to Guattari, the totality and complexity of these interactions constitute a subject’s “existential Territories.”\textsuperscript{69}

In \textit{The Three Ecologies}, Guattari discusses the notion of existential Territories in the context of the emergence of eco-oriented subjectivities, when a “break-bifurcation”—a singularisation that tends towards creative complexity—begins.\textsuperscript{70} He invokes existential Territories to describe situations that include multiple components in which some are partially at odds with the discourse of post-industrial capitalism: for example, a subject’s or a collective’s encounter with “art.”\textsuperscript{71} However, for the purposes of the current discussion, it is useful to consider the notion of existential Territories in terms of the re-production of capitalist subjectivity. That is, inverting Guattari’s focus, if a subject’s existential Territories are dominated by the refrains (that is, order-words) of post-industrial capitalism, because all other alternative discourses have been evaded or crushed, then capitalist subjectivity will proliferate.

\textsuperscript{64} Guattari, \textit{The Three Ecologies}, 50.
\textsuperscript{65} Bateson, \textit{Steps to an Ecology of Mind}, 455.
\textsuperscript{66} Guattari, \textit{The Three Ecologies}, 54.
\textsuperscript{67} Ibid., 56.
\textsuperscript{68} Ibid.
\textsuperscript{69} Ibid., 33.
\textsuperscript{70} Ibid., 56.
\textsuperscript{71} Ibid., 33, 44–5.
I read Nymphomation’s fictional construction of Manchester as presenting an extreme version of such a scenario. AnnoDomino’s utter dominance and control of the Mancunians’ existential Territories is established at the outset of the novel: “[t]he I Ching, the rosary beads, the tarot cards, the horoscopes; all in the trash can. The AnnoDominoes replaced them all” (16). And the ability of the blurbflies’ order-words to thoroughly occupy the physical-psychological existential Territories of the Mancunians is underscored later in the novel, when the omniscient narrator describes the blurbflies as “flying around the house and down the street and in and out of windows ... under the city's skin, inside of heads and outside of television” (249). The blurbflies’ order-words breach divisions between public and private, occupying the city’s streets and the Mancunians’ minds—the entirety of Manchester’s existential Territories. Like an earworm, a catchy song that continually repeats inside one’s head even after it has stopped playing, the “play to win” advertisement continues to exist inside the Mancunians’ minds even when the blurbflies are not around. Moreover, the regular rhythm of the first clause (”around the house and / down the street and / in and out of / windows”) suggests that the blurbflies’ message has come to occupy the Mancunians’ minds with an easy, methodical precision. Nymphomation’s representations suggest that it is within such an existential Territory—one that is thoroughly dominated by the order-words of AnnoDomino—that the capitalist subjectivity of its fictional Mancunian masses is produced.

In addition to the popularity of the lottery and pervasiveness of the blurbflies’ order-words, AnnoDomino is portrayed as strategically controlling who and what can be advertised using the blurbfly technology. The company upholds the cultural value attached to the sign of wealth by strictly regulating the technology, manufacture and programming of blurbflies, whether they are being used to advertise the company’s lottery or whether they are being “rented” to other companies and individuals. One way the novel conveys this is through “rules to fly,” section eight of AnnoDomino’s rulebook (75-6). Section eight of the rulebook is one of thirteen brief sections typographically off-set from the main narrative—they appear in a different font under emboldened headings—that mimic the objective tone and formatting of a formal policy document. Section eight includes clauses such as:

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72 As an aside, the novel uses these sections not only as exposition, but also as a means of critiquing various aspects of AnnoDomino. For example, rule “3b.” states that “AnnoDomino may not coerce any of the populace into playing the game” (21). However, this is followed by a comment expressed from the point of view of the third person omniscient narrator noting that “still the dance [read: lottery] continued, playing the punters like a city of lovers,” which implies that AnnoDomino is breaking its own rule (21). In the case of rule eight, in the main narrative, immediately following the stricture that “[n]one but the Company shall capture a blurb[fly],”
8d. Only the company may manufacture the blurbs. Other businesses or individuals may purchase blurbs from the Company, pre-loaded with messages and armed to the teeth, for the appropriate price.

8e. None but the Company shall know the insides of a blurb. (76)

Despite AnnoDomino’s apparent political indifference regarding who buys a message or what message is programmed—“[e]very company had a corporate message to fly, as long as they paid the subscription to AnnoDomino”(68)—the blurbflies’ advertisement repeats the same order-words no matter what product is being advertised: “[s]teal to win, steal to win, steal to win!” (68). In other words, whether selling consumer goods like Whoomphy’s burgers (“eat to win”) or public services such as the police (“arrest to win”), the social dynamic engendered by post-industrial capitalism’s order-words can be summarised as follows (68): fleece someone else of some of their power (money or freedom) in order to accumulate more of your own symbolic power (greater profit or a bigger arrest record). AnnoDomino’s technical knowledge, therefore, allows the company to control who can have their own message—those with enough money to purchase a blurbfly, and also what messages get programmed and broadcast by the blurbflies—messages parroting the order-words of post-industrial capitalism as it is imagined in the novel.

**Neoliberalism, Place-Marketing and Public-Private Partnerships**

Shifting the argument away from the blurbflies’ “play to win” order-words and their impact upon the subjectivity of the Mancunian masses, here I will consider how Nymphomation’s version of post-industrial capitalism is represented as implicated in the deterioration of Manchester’s society and environment through its connection to neoliberalism. As noted in the Introduction, neoliberal ideology champions deregulated, free-market capitalism as the best way to promote socioeconomic development, a belief that is used to legitimate policies such as the privatisation of public services (including, public-private partnerships), the dismantling of social welfare and increased interlocal competition (for public and private investment). In particular, Nymphomation portrays the neoliberal preference for public-private partnerships as

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Jazir does catch one with the intent to make a replica (76). Here, the juxtaposition of the rules with the main narrative signifies that AnnoDomino’s rules are much more malleable than their formal, objective tone suggests. This foreshadows the downfall of post-industrial capitalism (the discursive “rulebook” that AnnoDomino engenders) at the novel’s resolution, which also turns out to be relatively malleable, despite appearing to be universal and unchangeable to the novel’s Mancunian masses.

undermining the ability of public institutions to work on behalf of the public good, especially when corporate interests conflict with social and environmental concerns. I will begin this argument by outlining how Nymphomation’s evocation of neoliberalism refracts policy trends in the historical Manchester. Then I will analyse how the novel critiques the neoliberal policy of public-private partnerships by focusing upon, firstly, its association of such arrangements with the disintegration of social welfare systems, and, secondly, its alignment of such partnerships with the inability of public institutions to mitigate consumer and corporate driven environmental degradation. In Nymphomation, neoliberal ideology—in the guise of public-private partnerships—is represented as impeding the ability of public institutions to work on behalf of the Mancunians’ collective social and environmental interests.

Firstly, the novel establishes a connection between AnnoDomino’s presence in Manchester and neoliberalism when it is revealed that the company’s presence in the city is the result of a competitive bidding process: “Manchester had won the right to test the dominoes” (78). This is a reference to events that had occurred in the historical Manchester, which are indicative of the encroachment of neoliberal ideology (interlocal competition) at work in Manchester City Council’s social and economic policy. In the 1980s and 1990s Manchester had put in two bids to host the Olympic Games and one bid to host the Commonwealth Games. Steve Quilley, writing with an interest in the political and economic “regeneration” of Manchester, argues that the city’s Olympic/Commonwealth bids were examples of “place-marketing strategies” implemented by the Manchester City Council to make the city more competitive for funding from the National government. Place-marketing, a marker of interlocal competition, is a feature of neoliberal urban policy—when funding through the redistribution of taxes by the state is withdrawn, cities are forced to compete with each other to secure cash; one way to do this is by marketing themselves as a better place to invest than their regional neighbours. Additionally, also writing about Manchester’s

74 Quilley, “Entrepreneurial Turns: Municipal Socialism and After,” 84.
75 Ibid.
76 Urban and economic theorists Jamie Peck, Nik Theodore, and Neil Brenner offer a more detailed summary of the connection between neoliberalism and place-marketing: cities today are embedded within a highly uncertain geo-economic environment, characterized by monetary instability, speculative movements of financial capital, global location strategies by major transnational corporations and intensifying interlocal competition. In the context of this deepening global-local disorder, most local governments have been constrained, to some degree independently of their political orientation and national context, to adjust to heightened levels of economic uncertainty by engaging in short-termist forms of interspatial competition, place-marketing and regulatory undercutting in order to attract investment and jobs. “Neoliberal Urbanism,” 57–8.
“regeneration,” Allan Cochrane, Jamie Peck and Adam Tickell note that “[o]ne of the defining features of the Olympic process was the distinctive role played by the private sector, especially the charismatic presence of Bob Scott, the bid’s leader, who in the course of the city's efforts to win the Games would earn the moniker ‘Mr Manchester.’”

Quilley argues that Manchester’s willingness to compete with its regional neighbours and enter into public-private partnerships marked a distinct shift in the character and content of the local government’s strategies, what he calls the City Council’s entrepreneurial turn:

[t]he entrepreneurial city was a Labour-driven project, arising from an accommodation between the voluntarism of the municipal left and the ideological hegemony of the supply-side, market-based strategies imposed by central government via the development corporations.

Prior to this entrepreneurial turn, which emerged in the late 1980s, Manchester City Council had been characterised by a "municipal socialism" that emphasised, firstly, "[p]artnership as 'class-based political alliance' organised in opposition to both the private sector and the national government," and secondly, "[c]ommitment to [the] principle of solidarity between cities and communities." By contrast, Quilley notes that characterising Manchester’s entrepreneurial turn was an emphasis upon "[p]artnership as a cross-class growth coalition rooted in a strong (chauvinist?) city identity [and the acceptance of a] central role for the private sector," and also the "[a]cceptance of institutionalised competition between cities (e.g. for discretionary funding in the case of City Pride [a local council "rejuvenation" initiative])—and the inevitability of losers as well as winners." In other words, the historical Manchester adopted, rather than resisted, the neoliberal policy of interlocal competition and embraced the strategy of place-marketing to help their cause.

Read in the context of these historical events, AnnoDomino’s representation resonates with the historical Manchester’s implementation of place-marketing strategies. That is, the novel's fictional Manchester, like the historical Manchester, is involved in the branding of the city as a business/investment-friendly location through its bidding for and winning of the privilege to host a large-scale private enterprise. In

See also Remy Tremblay, Robert Rogerson, and Hugues Chicoine, “Place Ratings, Shifting Neoliberalism and Quality of Life in Communities,” *Interventions Économiques* 37 (November 2007), 1-15, http://strathprints.strath.ac.uk/4795/.


78 Quilley, “Entrepreneurial Turns: Municipal Socialism and After,” 77.

79 Ibid.

80 Ibid., 86–7.

81 Ibid.
the case of the historical Manchester, the enterprise was the Olympic/Commonwealth Games; in the case of the fictional Manchester, the enterprise is the AnnoDomino lottery. Interestingly, regarding the historical Manchester, the city’s two Olympic bids failed to secure it the right to host the games. However, in terms of the marketing of Manchester, placing a bid in the first instance indicated to national and international corporations—to borrow the order-words of Australia’s current neoliberally-inclined Prime Minister Tony Abbott in relation to Australia—that the city was “under new management and open for business.” That is, within the competitive sign economy engendered by post-industrial capitalism, winning the Olympic bid is secondary to being seen as welcoming of investment.

I draw attention to this collusion between neoliberalism and post-industrial capitalism via place-marketing strategies to set up one way *Nymphomation* posits such shifts as impacting upon the welfare of the city’s most economically marginalised, the homeless. The homeless, who are generally portrayed sympathetically throughout the novel, feature heavily in *Nymphomation’s* Manchester. While they are a group that is marginalised in the historical Manchester (a situation that is mirrored in most other “first world” cities), in the novel, their presence and plight are centralised, which is indicative of the progressive politics the novel promotes. Unlike the blurbflies, who are allowed to go anywhere, the whereabouts of *Nymphomation’s* homeless are thoroughly managed by the City Council, which keeps an “official [begging] hole register” (179) and stipulates that “no vagabond could claim a legit begging hole unless they were ‘officially homeless’” (58). In the historical Manchester, Rosemary Mellor notes that the “rejuvenation” of the city’s centre involved the displacement of the homeless, who previously resided there, because they were seen as blight on its otherwise newly glamorous aesthetic. Urban “rejuvenation” or gentrification is another example of a place-marketing strategy. Visible homeless populations are a liability for a city participating in a competitive sign economy, because their presence threatens to deter the “right” kind of urban dweller and corporate investment: “high-income urban elites

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82 Manchester did manage to secure a winning bid for the Commonwealth Games; it hosted the Games in 2002.
86 Smith, “New Globalism, New Urbanism.”
[who shop at] upscale boutiques and restaurants” and work at “finance and specialised services [that] can earn superprofits.”87 Therefore, the homeless, because of their shabby appearance and lack of money, are discouraged from inhabiting the city centres.

_Nymphomation’s_ representation of the City Council’s management of the whereabouts of the homeless highlights and critiques the historical Manchester’s maltreatment of the homeless. The existence of the official hole register, in _Nymphomation’s_ fictional version of Manchester, reveals the City Council’s awareness of homelessness, but also their failure to deal with the problem. Money is expended to track the homeless and ensure they are kept out-of-sight in designated holes, but no money is spent on providing them with homes. In this way, _Nymphomation’s_ critical refraction of place-marketing strategies deployed by Manchester City Council echoes the views of some Mancunians who were dissatisfied with such a direction. For example, some Hulme residents produced the following satirical announcement in 1987:

**MADCHESTER City Council: Update!**

We have democratically decided that your homes are not important. Big business and yuppies have offered us large sums of money to have private offices, posh shops, car parks, wine bars, etc. in Hulme. … You will not be able to come to the city and spoil our chances of attracting big business and the Olympics. For you scum who pay no poll tax, squat, or are too young or too old to be bothered with, we have a wide selection of park benches and cardboard boxes to offer you as accommodation. We apologise for any inconvenience.

**CUTTING JOBS. DESTROYING SERVICES. SELLING YOUR HOME.**88

In summary, the novel suggests that place-marketing strategies further disenfranchise the already marginalised homeless by displacing them from city centres and directing funds to their seclusion, rather than to their aid.

The construction of AnnoDomino also critiques the historical Manchester’s “frenzied public-private partnership formation,” which the novel associates with the corruption of public institutions and officials, as well as with environmental despoliation.89 Interestingly, the title bestowed upon AnnoDomino’s chief executive officer, Mr Millions, is suggestive of such a critique insofar as it recalls Bob Scott’s moniker “Mr Manchester.” The substitution of “Millions” for “Manchester” implies the substitution of the interests of Manchester and its citizens for the millions in profit.

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87 Sassen, *Globalization and Its Discontents*, 89.
88 Hulme residents qtd. in Quilley, “Entrepreneurial Turns: Municipal Socialism and After,” 85.
private enterprises stand to receive from such partnerships. Indeed, the novel exclusively represents public-private partnerships as leading to nefarious dealings, which impedes the ability of public institutions to act in the best interests of the city and its citizens. For example, AnnoDomino owns Whoompy Burgers, a satirical reworking of the Whimpy's and McDonald's fast food franchises—Whoompy's logo is the letter W, which is an inversion of McDonald's "golden arches" logo, the letter M. In turn, Whoompy's sponsors the university (73) and the police force (85). In the case of the university, the novel associates this public-private partnership as meaning "that part of the Whoomphy's sponsorship deal was to collect marketing data from all the university's students," so as to more effectively extract profit from this demographic. In the case of the police, in an extra-diegetic passage that takes readers out of the world of the story and explicitly frames the narrative as a social critique by beginning with the phrase “[a] small aside for social historians,” Nymphomation explains:

   [b]urgercops are the warriors of orthodoxy. They had given in to the tightening of state budgets and allowed themselves to be sponsored. Whoompy Burgers won the franchise on the law, ordering the cops to wear, at all times, the logo of the company. (85)

The alliance between the police and Whoompy's is represented as placing the "police in the pocket of the game [AnnoDomino]" (126). In particular, a policeman called Inspector Crawl is enlisted to cover up the Lucky Bleeder murders and derail the Dark Fractals' investigations into the case. For his allegiance to the company's demands, he is rewarded with "[l]oadsa lovelies! Aye, big piles of it" and a promotion into a role at AnnoDomino's headquarters (223). However, Nymphomation's critique focuses upon the privatisation of the police force, rather than the police themselves. This is made clear in the following exchange between Crawl and Maximus:

   [Maximus:] "Wouldn't you rather be back in the police, Crawl?"
   [Crawl:] "Me? Why?"
   "This can't be satisfying."
   "It's the same job actually."
   "Covering up murder?"

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90 While the novel does not pursue this connection, given my ecologically-oriented interests it is worth mentioning that fast food restaurants such as McDonald's carry a significant environmental legacy. As Vandana Shiva notes:

   [j]unk-food chains, including KFC and Pizza Hut, are under attack from major environmental groups in the United States and other developed countries because of their environmental impact. Intensive breeding of livestock and poultry for such restaurants leads to deforestation, land degradation, and contamination of water sources and other natural resources. Vandana Shiva, Stolen Harvest: The Hijacking of the Global Food Supply (London: Zed Books, 2000), 70–1.
"I've put a few murderers behind bars, you know. It wasn't always like this."

"No. It wasn't." (335)

In other words, AnnoDomino’s sponsorship of the police has compromised their ability to investigate crimes and enforce laws that protect the city’s inhabitants. *Nymphomation* thus represents public-private partnerships as undermining the ability of public institutions to act in the public’s interest, because they are beholden to corporations whose primary concern is to generate profit.

*Nymphomation*’s critique of neoliberalism can also be read in terms of its representation of the despoilment of the city’s environment. The City Council’s partnership with AnnoDomino is depicted as rendering the local government unwilling and powerless to enforce regulations against the pollution caused by the Company. For example, commenting on the litter caused by discarded domino tokens at a point in the novel when it seems like the Dark Fractals will be unable to overcome AnnoDomino, Daisy wonders:

> [w]hy don’t they [AnnoDomino] clean them up? Can’t the council do something about it? There ought to be a new ruling: AnnoDomino will undertake to keep the city free of all discarded chances. Whoomphy had to do it, didn’t they? Special bins, students in burger suits? What was the difference? (284)

The text does not offer any explicit answers to the rhetorical questions it poses through Daisy’s musings. However, given the novel’s representation of the balance of power between AnnoDomino and the police, it can be inferred that the local government is unwilling to introduce a ruling such as Daisy suggests because the Company will not allow it (as clean-ups cut into profits). Alternatively, it might be the case that the council does not want to introduce such a ruling because hampering an enterprise that offers individuals in its electorate the opportunity to become rich would be unpopular. In either case, the outcome is that the council is represented as failing to advocate for the protection of the environment (which would be in the public’s interest), and AnnoDomino is thereby able to continue to pollute the environment unchecked.

Nonetheless, later in the novel, when the blurbfly pollution has become intolerable, *Nymphomation* represents the public-private partnership between the city and AnnoDomino as one in which the “public” has been rendered powerless.

The Government was at a loss regarding the overwhelming messages; they knew the experiment [AnnoDomino’s lottery and advertising campaign] had gone wrong, but how to right it? With the AnnoDomino Company the Government whispered, with the burgercops they pontificated, with the big
Whoomphies they made a big beef; stop this plague of flies immediately, they urged, before the people stop voting for us.

No deal. This is what you get, fucking the adverts. (240)

Despite its best efforts in this instance, the City Council is represented as impotent. AnnoDomino’s thorough insinuation into public institutions (the police) and popular private enterprises (Whoomphy Burgers) undermines the City Council’s ability to enact environmental policy when it is politically motivated to do so. In other words, Nymphomation’s eco-project suggests that public-private partnerships enable the deterioration of social and environmental conditions because the “bottom-line” of the private sector compromises the government’s commitment to serving the public interest.

To summarise: as an interface between the Mancunians and the AnnoDomino lottery simulation, the blurbflies and their “play to win” order-words are depicted as major contributors to social inequality and environmental degradation, through their presence in the city and the behaviours, values and subjectivity their order-words promote and produce. Nymphomation represents the blurbflies as both the site and source of pollution. They are pollutants themselves because their population is too large, and they contribute to other types of pollution because their advertising perpetuates the cycle of mass-production, over-consumption and mass-waste. Additionally, because they dominate the Mancunians’ existential Territory, and because their “play to win” advertisement over-valorises wealth, the blurbflies’ order-words are internalised by the Mancunian masses. This produces a capitalist subjectivity that over-values money and devalues generosity and care for the other and the environment, and is expressed through competitive individualism. It is also a subjectivity that uncritically “works” for the profit imperative of AnnoDomino and is modelled upon corporate values and practices.

The AnnoDomino simulation itself, insofar as it stands for the discourse of post-industrial capitalism in my reading of the novel, is also depicted as underpinning the social and environmental problems that beset Nymphomation’s Manchester through its association with neoliberal policies, such as requiring places to compete for funding and promoting public-private partnerships. Such policies manifest in the novel when money is put towards managing the whereabouts of the homeless and keeping them out of sight (in “official holes”), rather than allocating funding to improve their living conditions. Additionally, public-private partnerships, which the historical Manchester pursued in order to compete for National funding, are represented as crippling the
ability of public institutions to work on behalf of the public good, because in these arrangements the public body is in thrall to the Company. Under such arrangements, police corruption and pollution proliferate because this suits AnnoDomino’s economic interests. *Nymphomation* thus imagines Manchester’s (eco)system as bleak and dystopian while the AnnoDomino lottery simulation is running. The blurbflies’ “play to win” order-words and the novel’s version of the discourse of post-industrial capitalism structure the Mancunian society and the psychology of Manchester’s citizens, and these are highlighted as underpinning and perpetuating the city’s social and environmental problems.

**Section Three: Yawndale Monstermarket and “Dream to Win”**

In this section I will argue that *Nymphomation* presents two ways of “hacking” the AnnoDomino lottery simulation. The first is associated with a site called the Yawndale Monstermarket, a former shopping centre that was destroyed by a terrorist attack, which I will discuss presently. The second is associated with the transformation of the blurbflies’ order-words from “play to win” to “dream to win,” which I will discuss below.

**Yawndale Monstermarket**

The demise of the Yawndale Monstermarket references an IRA terrorist bombing that occurred in the historical Manchester in 1996.91 The bomb destroyed the Arndale Shopping Centre, which was located in the centre of the city’s shopping district and has since been rebuilt. However, in *Nymphomation*, a “ramshackle band of eco-warriors” called the “Children of the Swamp” are assigned responsibility for the bombing that led to the closure of Yawndale Monstermarket (219). As eco-warriors, the Children of the Swamp represent a group that engages in guerrilla warfare on behalf of “ecological” interests. By selecting a shopping centre as the site of the group’s protest, the novel constructs corporate capital and consumerism as the vice the Children of the Swamp see as preventing ecological flourishing.

In terms of the hacktivist metaphor that I suggest frames the novel’s eco-project, the actions of the Children of the Swamp—while representative of activism—are not representative of hacktivism. The group’s protest involves violence directed at a physical site, rather than attempting to block cyberspatial information flows. Instead,

I will argue that the Yawndale Monstermarket constitutes a “hacking” of the AnnoDomino lottery simulation insofar as it is a location where characters’ existential Territories are not invaded by the order-words of post-industrial capitalism. The novel’s homeless community takes shelter in the centre’s bombed-out basement; however, while the homeless can enter the site, the blurbflies cannot (at least not en masse). Here, in the basement of the Yawndale Monstermarket, the AnnoDomino lottery simulation is prevented from operating. The information flow of the discourse of post-industrial capitalism—engendered by the blurbflies’ “play to win” order-words and the shopping centre itself—is completely blocked. Therefore, the activism of the Children of the Swamp, by creating conditions unconducive to the blurbflies’ presence, constitutes one way of hacking the AnnoDomino lottery simulation.

In this section, I will consider how the novel constructs the Yawndale Monstermarket both before and after its bombing. I will argue that the site and the community that emerges there represent a reversal of the dominant material and discursive conditions that characterise the rest of Manchester. That is, in the absence of the blurbflies’ order-words, the homeless who live in the bombed-out basement relate to each other and their surroundings in a way that can be described as adaptive, community-oriented and caring, rather than as controlling, competitive and individualistic. Finally, I will discuss the limitations of the Yawndale Monstermarket “hack” in terms of its ability to foster broader and ongoing social and environmental change.

**Techniques of Hierarchal Dualism**

Before further developing these arguments, I will elaborate Plumwood’s ideas regarding dualistic thinking and the master-slave relationship outlined in the Introduction. This is necessary because these ideas provide the theoretical framework through which I read the representation of Yawndale Monstermarket as a reversal of Manchester’s dominant values. Plumwood argues that the issues of social justice and environmental degradation have been conceptually connected through the “complex cultural identity of the master.”

The identity of the master, Plumwood continues, is “formed in the context of class, race, species and gender domination ... [and] has framed the dominant concepts of western thought, especially those of reason and nature.” According to Plumwood, the cultural identity of the master is founded upon the association of the categories of white/colonial/male/human with the culturally

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92 Plumwood, *Feminism and the Mastery of Nature*, 5.
93 Ibid.
valued ideas of action and reason; the cultural identity of the slave, by contrast, is founded upon the association of the categories of non-white/poor/female/animal with the culturally devalued ideas of passivity and nature.94

Furthermore, Plumwood argues that the dominance of the master is maintained through the techniques of dualism, which include backgrounding, radical exclusion and instrumentalism.95 That is, the master distances itself from and exercises its power over the slave through these techniques. Backgrounding involves the master attempting to conceal the fact that he or she relies upon and benefits from the “services” the slave provides by “making the other [slave] inessential, denying the importance of the other’s contribution, or even his or her reality, and through mechanisms of focus and attention.”96 For example, in the case of women, the important contribution that reproduction and domesticity make to society and the economy is deemed as not “worth” noticing in comparison to politics and public events; in the case of nature, humans deny their “dependence on biospheric processes [and view themselves] as apart, outside of nature, which is treated as a limitless provider without needs of its own.”97 Another technique of dualism is radical exclusion, which is a form of hyperseparation.98 Here, the master:

[tries] to magnify, to emphasise and to maximise the number and importance of differences [between master and slave] or treat as inessential shared qualities, and hence to achieve maximum separation. ‘I am nothing at all like this inferior other’ is the motto associated with radical exclusion.99

By over-emphasising differences between master and slave, masters legitimate their inferiorisation and exploitation of slaves. The final technique of dualism I will summarise is instrumentalism, which is a form of objectification.100 This requires slaves to “put aside their own interests for those of the master ... [so that the slaves’] ends are defined in terms of the master’s ends.”101 Conversely, the master “does not recognise [the slave] as a centre of desires or needs on their own account. Hence on both counts he is free to impose his own ends.”102 Plumwood maintains that:

[s]uch [dualistic] treatment, standard in the west for nature since at least the Enlightenment, has since been opposed and officially condemned for humans,

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94 Ibid., 4.
95 Ibid., 48–53.
96 Ibid., 48.
97 Ibid., 21–2.
98 Ibid., 49.
99 Ibid.
100 Ibid., 53.
101 Ibid.
102 Ibid.
but western] ... culture is only just coming to realise that the same construction might also be problematic for non-human nature.\textsuperscript{103}

In other words, the same dualistic thinking that perpetuates the oppression and exclusion of marginalised groups in society (the poor, the racial other and women) is also responsible for practices and attitudes that lead to environmental destruction, such as the denial of the importance of the material environment as a necessary condition for human existence.

Plumwood notes that reversing dualistic valuations has been advanced by some eco-feminists as a way to remedy such injustices.\textsuperscript{104} This particular response resonates with the novel’s representation of Yawndale Monstermarket and the community that arises in its bombed-out basement. The eco-feminist argument of “uncritical reversal,” as Plumwood refers to it, relies on associations of “woman” with “nature” and “emotions,” and “man” with “culture” and “rationality,” where the former are subordinated in their role as slave and the latter are elevated in their role as master.\textsuperscript{105}

Furthermore, via these associations and the reproductive capacity of women, the feminine is attributed the qualities of care and co-operation, whereas the masculine is attributed the qualities of aggression, competitiveness and destructiveness.\textsuperscript{106} Underpinned by these traditional associations, the eco-feminist argument of “uncritical reversal” runs according to the following logic.\textsuperscript{107} If women and nature were valued, then the qualities of emotionality, caring and co-operation would flourish; therefore, such a society would not suffer from the social and environmental injustices that have resulted from the elevation of reason, competition, aggression and destruction. Plumwood critiques several aspects of this argument,\textsuperscript{108} but on the whole she refers to it as an “uncritical reversal” because it does not overcome the logic of hierarchal dualism—a logic which Plumwood argues has underpinned and legitimised social and environmental inequalities in the west since the Enlightenment.\textsuperscript{109}

\textsuperscript{103} Ibid., 4–5.


\textsuperscript{105} Plumwood, Feminism and the Mastery of Nature, 31–32.

\textsuperscript{106} Ibid.

\textsuperscript{107} Ibid.

\textsuperscript{108} Ibid., 32–4.

\textsuperscript{109} Ibid., 32.
A Refraction of the Norms of Consumerism and Post-Industrial Capitalism

The existence and subsequent reversal of the dualisms that dominate Nymphomation's Manchester are evident in the novel's depiction of the Yawndale Monstermarket. The novel describes the "history" of the fictional shopping centre as follows:

[t]he Yawndale Monstermarket was opened in the early 1970s. A grotesque slab of prefab, its birth destroyed whole streets of shops and an outdoor market; it gobbled them up like a glutton. Its twenty-five-year reign as the 'ultimate shopping experience' was only relieved by four separate terrorist attacks. (219)

In the text, Yawndale Monstermarket functions as a microcosm of the mass-consumerism that AnnoDomino brings to the novel's fictional Manchester thirty years later. Like AnnoDomino, the shopping centre replaces diversity with homogeneity and creates an environment where corporate-sanctioned consumerism is dominant. Its "prefab" construction devours and demolishes its competition (the outdoor market) and makes it a structure separated from and unable to be penetrated by its surrounding environment. As such, it inscribes many of the same destructive values and consumerist practices as AnnoDomino. These associations are reinforced by the shopping centre's unsubtle moniker. The "yawn" in Yawndale is evocative of the centre's soporific effects and the blandness of its reproduction of the standard shopping centre model. The "monster" in Monstermarket straight forwardly suggests a figure capable of destruction, and so ugly that it is frightening. Interestingly, "monster" derives from the Latin monstrare, which has etymological links to both money and warnings. The name of the shopping centre can be seen as foreshadowing the kinds of social and environmental problems the novel presents AnnoDomino as having brought to bear upon Manchester through its similar perpetuation of mass-consumerism and post-industrial capitalism.

The description of Yawndale Monstermarket constructs the site as a place where the poor are excluded and "nature" is backgrounded. Mellor's analysis of the impact of the historical Manchester's inner-city re-development in the 1990s on the city's poor is instructive on this point:

both cosmopolitan and poor are users of the central city, and indeed the latter depend on it. ... For many it is the only place to sit out, to be part of public life, to be in the turbulence of the crowd. The urban core is open to all comers; it
does not have the defensible space of the purpose-built shopping mall, leisure centre or country club.\textsuperscript{110}

Mellor argues that the poor are actively excluded from places such as shopping centres because to the “investors they represent what a city should not be—untidy, shabby, without money, liable to crime.”\textsuperscript{111} Yawndale Monstermarket represented such a corporate-owned, exclusionary place. It was an enclosed building, a structural feature allowing who could and could not enter to be easily policed.\textsuperscript{112} By contrast, the homeless are shown begging and watching television through shop front windows in the open shopping precincts represented in the novel. Also, the closest the homeless came to entering Yawndale Monstermarket while it was operational was resting in its exhaust pipe; as the omniscient narrator relates to the reader, “in the old days ... [it was] where a tramp could sleep sung and warm” (220). The Yawndale Corporation’s private ownership of the shopping centre confers on the Company the power to include and exclude particular groups based upon, firstly, their ability to participate in consumerism (which requires money the homeless do not possess), and secondly, their ability to appear as if they uphold the norms of consumerism through their tidy and fashionable appearance.

The physical exclusion of the homeless reinforces the master identity of the Yawndale Corporation and the shoppers they invite into their centre. Plumwood argues that “[t]he master defines himself by exclusion against the other. For the master, formation of identity by this means leads to a need to maintain hierarchies to define identity. There must always be a class below whose inferiorisation confers selfhood.”\textsuperscript{113} Therefore, what characteristics are excluded from the category of the homeless is what defines the master identity: the appearance of being an active, wealthy consumer. If, as Plumwood suggests, the slave (the homeless) is aligned with an always-already inferior nature or animal, and the master (Yawndale Corporation and the shoppers) with a superior human, then in the context of the Yawndale Monstermarket, to be human is to be a shopper. In other words, if a person cannot consume, then that person is not human at all—they have been radically “othered.”

Yawndale Monstermarket also radically excluded the “natural” environment. Its “concrete slab” and “prefab” walls created a physical barrier separating inside from outside, and its air-conditioned interior environment prevented “natural” events (for

\textsuperscript{110} Mellor, “Hypocritical City: Cycles of Urban Exclusion,” 231.
\textsuperscript{111} Ibid., 216.
\textsuperscript{112} For a discussion of the effect of privately-owned shopping centres on the policing of people and free speech in “public” spaces, see Taal Harper, Democracy in the Age of New Media: The Politics of the Spectacle (New York: Peter Lang, 2011), 95.
\textsuperscript{113} Plumwood, Feminism and the Mastery of Nature, 51.
example, extreme temperatures, rain, and pollution) from interrupting consumers’ shopping experience. The shopping centre’s walls and air-conditioning reinforced Yawndale Monstermarket’s master identity in another way: they foregrounded the shopping centre’s reliance upon the material environment. Inside the shopping centre, technology, not “nature,” determined the environment. The shopping centre maintained the illusion of humans’ independence from the material environment because its walls and air-conditioning made it seem as if humans were able, through the use of technology, to exert control over “nature,” and were not subject to its powers. The novel, however, points to the irony of such thinking with the comment that the shopping centre pumped out a “constant stream of bad air” (220). The air conditioning that ensured the comfort of the shoppers inside the building polluted the air surrounding it, the air to which the shoppers would be exposed once they exited the building. Yawndale Monstermarket erased its dependence upon the material environment at the same time that the practice it was designed to promote—mass-consumerism—destroyed it. In short, the description of Yawndale Monstermarket before it was bombed constructs the shopping centre as a site of and for the privileged master identity through its exclusion and foregrounding of the homeless and “nature.”

A Reversal of the Norms of Consumerism and Post-Industrial Capitalism

The eco-warriors’ bombing reverses the hierarchal organisation of the dualisms evident in the Yawndale Monstermarket. In the shopping centre’s bombed-out basement, “nature,” wilderness and the homeless are foregrounded and included, and culture, technology and the middle and upper classes are foregrounded and radically excluded. Within this socio-physical existential Territory, the homeless community is characterised by the following: a deep concern and respect its members have for the welfare of each other; a pursuit of goals that benefit the collective; and an ability to adapt to the physical environment (rather than an attempt to make their environment adapt to them). That is, the bombed-out basement and the community that arises there enshrine the notion that a harmonious society would be possible if the traditional organisation of the master-slave hierarchy were reversed.

“Nature” and wilderness dominate the site because of the eco-warriors’ actions. The word-choice in the exposition that introduces the Yawndale Monstermarket suggests this point: the eco-warriors “had gutted the building with a devastating

methane bomb explosion ... [so the] Yawndale Corporation cut the funding, the monster breathed its last, sad, special, once-only offer” (219). Whereas the operational shopping centre was comfortable and clean, independent of and unable to be penetrated by the exterior environment, the methane bomb makes Yawndale Monstermarket inhospitable, dirty, and vulnerable to the outside. The aspects of the material environment, such as dirt and smells, which were previously marginalised in the shopping centre, now dominate the space. The selection of methane-gas as the definitional component of the eco-warriors’ bomb is also significant insofar as it is a scent commonly associated with cows and farming. In shopping centres, the importance of farming and agriculture to the products that are sold is backgrounded because the source of goods and how they come to be in the shopping centre is generally kept out of sight. The methane-gas bomb, the smell of which lingers in the centre well after the explosion (220), shatters the veneer of the shopping centre as a self-contained place that has been independent of the environment upon which it relied for supplies and utilities.

In the absence of the trappings of consumer culture (for example, shops and advertisements) and under the dominance of conditions that emphasise the presence of “nature,” a value system emerges that privileges inter-dependence between humans and between humans and their nonhuman environment. Unlike the Yawndale Monstermarket, which uprooted and destroyed existing infrastructure in its development, the homeless who take up residence in its abandoned underground busport adapt to its existing elements. In particular, they re-purpose the abandoned buses as living quarters, and learn to deftly negotiate the treacherous ventilation pipes to enter and exit the basement rather than create a more convenient entryway (220-1). Underscoring the dualistic reversal that characterises the bombed-out basement is the valorisation of a homeless character who possesses an animal-like quality. “Animal,” here, is not a pejorative; rather, it is indicative of her skill: “Mama Mole, as befits the name, fairly ran along the cramped passage, leaving Daisy and Joe [another member of the Dark Fractals] to suffer knocks and bruises from protrusive pipes and jagged panels” (220). In the context of the bombed-out basement, to be animal-like is to be empowered.

Furthermore, the homeless who reside in the bombed basement share the space and its amenities peacefully. This is in contrast to how they behave when they are in the city. As already noted, in order to beg legally, the homeless must register an official begging hole, which they are shown to be very possessive of. For example, when Celia asks a beggar, who is occupying the begging hole of her friend Eddie Irwell, if he

115 Ibid., 33.
has seen him, the beggar replies: "Eddie can go fuck himself... This is my hole now" (88). However, in the bombed-basement, the homeless demonstrate a deep sense of care and responsibility towards each other. After recovering Eddie’s murdered body, they collectively mourn his death by “circling one of the broken-down buses, keeping the moaning going, higher and lower with each line of dull melody” (221). And Mama Mole says to the grieved Celia: “[y]ou’re with friends. We’ll look after Eddie” (222). It is important to note that while the sense of community and belonging exhibited in the basement of the Yawndale Monstermarket is idealised, the space itself is not represented as ideal. The beggars who live there still have “slow, broken lives,” and the dank, morbid surroundings are far from desirable (221). What the ruined basement and the homeless community who live there do represent, however, is that the “natural” setting of the basement enables the emergence of a value system that recognises the importance of each person’s dependence upon the human and nonhuman other. This is in part because their connection to each other and their material environment is more immediate, not ruptured or concealed as it is under the mass-consumerism and post-industrial capitalism of AnnoDomino (or had been under the Yawndale Corporation).

**Heterotopia**

The ruined remains of Yawndale Monstermarket exist in relation to Manchester city as an other kind of space. Michel Foucault has labelled such spaces heterotopias: sites that actually exist within society, but where behaviours and practices take place which do not occur in dominant society for cultural reasons.\(^\text{116}\) Heterotopias represent, challenge and overturn that which exists in "normal" society.\(^\text{117}\) Nonetheless, as sites that are contained within but are separated from the society in which they exist, heterotopias do not directly threaten social norms.\(^\text{118}\)

Understood as a heterotopia, the Yawndale Monstermarket can be seen as presenting an inverted reflection of Manchester city. It is an image of the kind of society that could exist if AnnoDomino and its blurbfly advertisements ceased occupying the citizen’s existential Territories with their sign pollution, which promote the values of consumerism (including the accumulation of wealth and competitive individualism). However, by containing this "mitigation strategy"—the inversion of dominant values and material conditions—in the bombed-out basement, the novel suggests that while such a response can indeed exist, it can only do so alongside and in opposition to a

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\(^{117}\) Ibid., 332.

\(^{118}\) Ibid.
norm it subverts. Therefore, while this solution represents an alternative to the socially and environmentally destructive consequences engendered by the AnnoDomino lottery simulation, it does not carry the potential to directly challenge the dominance of the discourse of post-industrial capitalism.

Indeed, the harmonious social and environmental relations enacted by the homeless in the bombed-out basement are represented as contingent upon the homeless actually being in the basement. When the homeless are in Manchester city, tension and violence disrupt the harmony of their community. As noted above, they possessively lay claim to official begging holes (80). Moreover, they attempt to steal Celia’s winning lottery token. The omniscient narrator draws readers’ attention to the novel’s depiction of the crumbling relations between the homeless, when they are not in the bombed-out basement, calling upon them to:

[...]look at that girl [Celia] fly! Running through the dark streets of the city, her little domino in her little hand with a tribe of big old dirty beggars chasing after her. The once proud and faithful family of tramps[,] ... they] wanted to steal her prize. What was happening to the brethren [the homeless community]? Blame it on the bones. (67)

For the homeless, the bombed-out basement is not a sanctuary away from the AnnoDomino lottery simulation, where they can pursue an alternative lifestyle, so much as it is the least bad option for shelter in a catalogue of bad alternatives. It is a place to shelter in while they work towards obtaining the money to re-enter mainstream culture. It is not a place they reside in by choice.\(^\text{119}\)

The bombed-out basement community can thus be seen as playing out a limitation of the “ethic of proximity.”\(^\text{120}\) Ursula Heise, whose work in Sense of Place, Sense of Planet interrogates the notion of the “local,” summarises the ethic of proximity as suggesting that “genuine ethical commitments can only grow out of the lived immediacies of the local that constitute the core of one’s authentic identity.”\(^\text{121}\) Heise argues that this idea dominates much environmental philosophy, environmental activism and ecocriticism.\(^\text{122}\) The ethic of proximity, Heise continues:

\(^{119}\) By contrast, for the poor students Jazir and Daisy, who choose to opt-out of mainstream culture and live in the bombed-out basement in the novel’s denouement, living there represents a transformation in their ideological (and as I will argue below ecological) perspective: they have rejected the values and practices of dominant society.

\(^{120}\) Ursula Heise, Sense of Place and Sense of Planet: The Environmental Imagination of the Global (Oxford: Oxford University Press, 2008), 33.

\(^{121}\) Ibid., 42.

\(^{122}\) Ibid., 28–49.
has not connected to the foundational idea in much recent cultural theory that identities are at their core made up of mixtures, fragments, and dispersed allegiances to diverse communities, cultures, and places—or that precisely these mixtures might be crucial for constituting “identities” politically as “subjects.”

The bombed-out basement enables an ethic of proximity because the beggars and homeless experience more immediate (that is, less technologically-mediated) encounters with each other and their surroundings, which the novel represents as leading to “genuine ethical commitments” (particularly to the human other). However, Nymphomation suggests that the ethical commitments to the other forged in the bombed-out basement are not compelling enough to forgo the promise of material comfort offered by mass consumerism. For example, Eddie and Celia—both homeless characters—are most often represented trying to collect lottery winnings, which will allow them to participate in mainstream consumer society. Therefore, Nymphomation suggests that while communities based upon an inversion of the values of post-industrial capitalism can flourish in existential Territories not dominated by advertising media (sign pollution), it imagines the potential of such a “cultural” solution to effect widespread social and environmental improvement to be limited. Inverting dualisms and containing such alternative value systems within particular sites is not enough to disrupt and transform dominant discourses, because it fails to challenge the either/or logic that perpetuates hierarchal thinking and falls short of engaging directly with the discourse it resists.

“Dream to Win” and Culture Jamming

The other means by which the AnnoDomino lottery simulation is “hacked,” I argue, is the transformation of the blurbflies’ order-words from “play to win” to “dream to win.” As has been noted, according to the novel’s plot, the advertisement’s wording is modified because of the Dark Fractals’ hacktivism. The group’s investigations reveal that AnnoDomino is behind the Lucky Bleeder murders: so in order to prevent further deaths, they hack into the company’s database. This shuts down AnnoDomino’s version of the Hackle Maze program, which is responsible for the following: programming the blurbflies’ advertisements; producing the domino tokens; and running the random number generator used in the lottery. However, the Dark Fractals’ hacktivism also endeavours to alleviate another injustice: namely, the blurbflies’ enslavement by

123 Ibid., 43.
AnnoDomino. This crusade is primarily pursued by Jazir and will be discussed in detail in the next section. Here it is important to note that Jazir acts in order to promote the welfare of the blurbflies, the nonhuman other. Hence, the Dark Fractals’ hacktivism is motivated not only by the desire to improve the lot of humans who are threatened by the Company, but also by the lot of nonhumans who are subjugated by it.

In terms of the novel’s hacktivist metaphor, the transformation of the blurbflies’ advertisement from “play to win” to “dream to win” can be understood as an example of “culture jamming.” The description of culture jamming by media theorists Michael O’Shaughnessy and Jane Stadler resonates with my working definition of hacktivism, thus providing a succinct explanation of the act.

“Culture jamming” is understood as a mode of resistance to the norms and conventions of mass culture that exposes and opposes the media’s underlying power structures and ideological messages. Culture jammers use their familiarity with the codes and conventions of advertising and other forms of communication to throw a spanner in the production of meaning by creating spoofs, defacing texts, and subverting the intended meanings of the media texts that they choose to rework. Often they actively try to denaturalise the media images that we see every day, by making us notice and question their underlying messages.124

Culture jamming disrupts cyberspatial flows of information by defamiliarising the order-words of dominant society, and it does so by hacking (that is, modifying) the advertising codes that perpetuate these norms.125 My argument is that the Dark Fractals’ hacking of the AnnoDomino headquarters leads to the culture jamming of its advertising message.

In this section, I will consider the significance of both the Dark Fractals’ hacking of AnnoDomino and the subverted order-words of the blurbflies’ advertisement for the novel’s eco-project. In particular, I will consider the novel’s association of the Dark Fractals’ hacktivism with Manchester’s improved socio-physical environment, through

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125 It is worth noting that culture jamming techniques can be appropriated by corporations in order to market their products. That is, some advertising campaigns have subverted culture jamming subversions, in order to make “subversion” sell. O’Shaughnessy and Stadler discuss a Sprite campaign that employed this tactic; the company’s campaign simultaneously used celebrity endorsement to sell the drink and drew attention to the fact that celebrity endorsement was the advertising technique being used to persuade audiences to buy the product. Ibid., 224–6. O’Shaughnessy and Stadler note that this technique “acknowledged that audience members and Sprite consumers are media savvy, cynical, and acutely aware that they are being manipulated.” Ibid., 225. Nymphomation does not explore the possibility of culture jamming being reappropriated by corporations.
the framework of Guattari’s ecosophic object. I will examine the differences between
the Yawndale Monstermarket reversal and the “dream to win” order-words as cultural
responses to the socio-physical problems that plague the novel’s fictional Manchester,
while it is under the dominion of the AnnoDomino lottery simulation. I read
Nymphomation as advancing “dream to win” as the more successful response, because
it overcomes the hierarchal dualisms that underpin the AnnoDomino lottery simulation
and the Yawndale Monstermarket reversal.

In order to contextualise my analysis, I will begin by describing the connections
Nymphomation makes among the modification of the blurbflies’ order-words from
“play to win” to “dream to win” with the amelioration of the city’s pollution problems
and the improved relations between the Mancunians. These events all occur at the
novel’s climax and denouement. The blurbflies’ order-words are changed because Jazir,
Daisy and Jimmy hack AnnoDomino’s headquarters and database. Daisy and Jimmy
hack AnnoDomino by playing a game of dominoes with special pieces that allow them
to remotely access the Company’s database; this allows Jazir to break into the
headquarters under the cover of a swarm of blurbflies. At the moment Daisy calls forth
the double-six in the domino game, Jazir inserts the device containing the Theseus
program, which will destroy AnnoDomino’s operating systems, into the Sayer-
Malthorpe creature. This two-pronged hack leads to the destruction of AnnoDomino
and the manumission of the blurbflies. It also causes all the lottery tokens in play to
land on the double six configuration, which is the “winning” combination.

The novel associates the blurbflies’ freedom from AnnoDomino with the
immediate resolution of Manchester’s sign pollution problems. No longer under
AnnoDomino’s control, the blurbflies disperse: “[a]cross the skies, see them now, still
wirling it. A migration of adverts, taking the dream elsewhere, out of Manchester. The
heavens were V-shaped for weeks after the game, and alive with the new message.
Dream to win!” (358). Additionally, the discarded domino bones that were littering the
streets “hatch” into blurbflies and join the swarms leaving the city:

“[w]ho would have thought it,” he [Jazir] said to the faithless executive [Crawl],
“the dominoes [lottery tokens] were eggs.”

All over Manchester now, those eggs were splitting in two, lucky bones opening
at last, to release their babies. (356)

The dispersion of the blurbflies and the metamorphosis of the domino bones mean that
they no longer exist as pollutants in Manchester.
The hacking of the lottery game is also associated with the emergence of a sense of community among the Mancunians, as well as their collective recognition that the discourse of post-industrial capitalism, which was engendered by AnnoDomino, represented only one way of interacting with the world. A result of the Dark Fractals’ hacktivism is that all of the lottery tokens in play settle on the double-six combination in the weekly draw. According to the rules of the lottery, this combination comes with the special prize of becoming Mr Million, where becoming Mr Million means becoming “master: domino” (49). However, because every domino in play settled on the double-six, this means that “[e]verybody everywhere, we’re all Mr Millions now!” (360). The Mancunians response to this outcome progresses as follows:

a million dances had turned to outrage and shock and then despair and then anger, and finally resignation. ... [The] people were turning their joint winnings into a reason for celebration; God had played a joke on the city, they might as well laugh it off. (360)

Unlike the customer in the bookstore, the Mancunian masses at this point in the novel are able to accept their lot and find joy in their collective situation. Significantly, this is also the point in the novel where the blurbflies’ order-words change to “dream to win.” The Mancunians demonstrate greater social cohesion and individual critical agency when they are no longer subject to AnnoDomino’s incessant “play to win” advertising, which they have come to recognise as only one (disappointing) version of reality. Also, being endowed with the status of “master,” they are symbolically assigned the power to control and organise their social and environmental conditions in ways not dictated by the values of post-industrial capitalism. The Dark Fractals’ hacktivism and the blurbflies’ transformed order-words are associated with the decline of AnnoDomino and its negative impact upon Manchester’s socio-physical (eco)system, on the one hand, and the rise of a city with unpolluted skies and land, and greater social cohesion and critical awareness among its citizens on the other.

Ecosophic Object

Guattari’s notion of the ecosophic object is a productive lens through which to understand how the slogan “dream to win” can facilitate the socio-physical changes that Nymphomation imagines as resulting from the transformation of the “play to win” slogan. Building upon my outline of this concept in the Introduction, I will further elaborate the features that are salient for my reading of Nymphomation. Guattari sees ecosophic objects as an emergent property of the particular and peculiar coalescence of
diverse mental, social and environmental conditions that lead subjects to apprehend
their relation to the world in ways that depart from the profit-driven norms that
govern post-industrial capitalism.\textsuperscript{126} Guattari argues that one way subjects can
counter ecosophic objects is through "[e]ngagement in innovative social, aesthetic
and analytical practices."\textsuperscript{127} Guattari claims that such engagements are "correlative to
crossing the threshold of intensity of speculative imagination";\textsuperscript{128} that is, by engaging in
such practices, subjects are able to imagine how reality could be organised according to
values that differ from those of post-industrial capitalism. For Guattari: "[t]o create is
to resist. It is to open a space as a condition for other ways of thinking. (The latter can
be good or bad)."\textsuperscript{129} It is worth noting that according to Guattari, such encounters "exist
but are unrecognised [sic] where scientism, dogmatism and technocracy prevent their
emergence."\textsuperscript{130} Recognising these latent ecosophic objects are paramount for Guattari,
as they open up "ethico-political options … [that call] for a permanent reappraisal of
the ontological foundations of existing modes of valorisation in every domain [for
example, the psyche, society and the biosphere]."\textsuperscript{131} Guattari's ecosophic object,
therefore, is initiated through engagement with creative practice and ascribed the
power to rupture, transform and dissolve the dominance of post-industrial capitalism
so that improved mental, social and environmental conditions can emerge. However,
Guattari cautions, this can occur "only if creative objectives appear within [the
subject's] reach."\textsuperscript{132}

Guattari's concept of the ecosophic object provides a way to account for the
profoundly different subjectivities and societies that accompany the "play to win" and
"dream to win" order-words. Firstly, it is important to note that "dream to win" is like
"play to win," insofar as both demonstrate the characteristics and function of order-
words. Both are short, repeated phrases that are part of Manchester's existential
Territory. Also, they both direct and organise how the Mancunians interact with their
socio-physical environment. However, the origin and content of "dream to win" differs
substantially from the origin and content of "play to win." As noted above, before
AnnoDomino is destroyed, the Company programs all the blurbflies with variations of
the advertisement "play to win," a phrase which is designed to increase the company's
profit by capitalising on the Mancunians' desire to be associated with the sign of wealth.
"Dream to win," on the other hand, is not programmed by a company or individual;

\textsuperscript{126} Guattari, \textit{Chaosmosis}, 127.
\textsuperscript{127} Ibid.
\textsuperscript{128} Ibid.
\textsuperscript{129} Conley, "Artists or 'Little Soldiers?' Felix Guattari's Ecological Paradigms," 119.
\textsuperscript{130} Guattari, \textit{Chaosmosis}, 125.
\textsuperscript{131} Ibid., 127.
\textsuperscript{132} Ibid., 30.
rather, it is the victory cry of the blurbflies’ triumphant emancipation. “Dream to win” originates at the “threshold of intensity” between the blurbflies’ enslavement and manumission, and so has its origins in “assemblages of enunciation confronted with the chaotic transversality proper to the complexity of ecosophic objects.” That is, “dream to win” emerges through the combination of several forces and circumstances: the blurbflies’ desire to be free of AnnoDomino’s control, Jazir’s willingness to act on their behalf to achieve this aim, and the success of the Dark Fractal’s hacktivism to destroy AnnoDomino. “Dream to win” is therefore an instantiation of the blurbflies’ and Manchester’s freedom and escape from the dominance of AnnoDomino and the discourse of post-industrial capitalism that AnnoDomino engendered. The “dream to win” simulation, in short, replaces the AnnoDomino lottery simulation.

Furthermore, in the context of the blurbflies’ order-words, “play” and “dream” encourage very different practices. In the context of AnnoDomino’s lottery, “play” prescribes what action an individual should do—namely, purchase domino bones. By contrast, “dream” teaches an individual how to act without dictating the outcome of that action—what a person dreams is not defined by the order “dream.” While “play” is directed towards the perpetuation of an action with a singular outcome that reinforces the homogeneous framework of post-industrial capitalism, “dream” is directed towards an action with divergent outcomes that encourages subjects to actively imagine alternative possibilities to existing situations, thereby undermining the “naturalness” of any one system. Read in this way, what the Mancunian masses “win” on the double-six is an insight into the fact that their values and desires had been manipulated by AnnoDomino. In other words, they have “won” the ability to “dream” about and seek happiness in things other than wealth. Moreover, “dream,” as an order-word—a sign that structures existential Territories—is a conceptual tool. Guattari argues that:

> [c]onceptual tools open and close fields of the possible, they catalyse Universes of virtuality [and have] pragmatic fallout [which] is often unforeseeable, distant and different. Who knows what will be taken up by others, for other uses, or what bifurcations they will lead to!

As with the “play to win” order-words, the “dream to win” order-words are implicated in structuring tangible relations between subjects and between subjects and their physical environment. The novel associates the “dream to win” order-words with the emergence of a society in which subjects join in collective celebration, and where land and air pollution dissipates. So whereas “play to win” can be seen as functioning to

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133 Ibid., 127.
134 Ibid., 126.
control and neutralise “the maximum number of existential refrains” for the profit of AnnoDomino, but to the detriment of the Mancunians and their environment, “dream to win” functions to multiply of the number of refrains for the benefit of society and the environment.

Briefly, I wish to consider the significance of Nymphomation's “happy ending” in which the novel's eco-catastrophe narrative is supplanted by a resolution featuring a vision of eco-restoration. This turn of narrative fortune can be seen as an example of “eucatastrophe,” a term coined by J.R.R. Tolkien to describe stories that are resolved by “a sudden and miraculous grace” that delivers the tales' heroes from hardship and death. Tolkien claims that eucatastrophe is a feature of fairy-tale writing—“they all lived happily ever after” being the genre's typical ending phrase. While Nymphomation is of the science fiction rather than fairy-tale genre, its resolution nonetheless appropriates the characteristic fairy-tale ending, where the antagonists (AnnoDomino) lose and the protagonists (the Dark Fractals) win. One way to interpret the significance of Nymphomation's genre-crossing— with its implausible, but uplifting ending—is that it calls readers' attention to the novel's status as literary artefact. The novel's happy ending announces that Nymphomation is not a reflection of reality, but a refraction of reality—a world constructed with words, where, with the click of a keyboard, the author can make everything turn out alright for the characters with whom the reader has been positioned to sympathise. In this reading, the novel's eucatastrophe functions similarly to Suvin's assessment of science fiction in that it promotes cognitive estrangement: the novel's final utopian vision stands out as a self-consciously constructed version of reality against which readers can critically assess their own reality.

Considering this in terms of Guattari's ideas, the eucatastrophe at the end of Nymphomation is a textual element that has played a key role in the emergence of my personal ecosophic object. Tolkien suggests that while eucatastrophe does not “deny

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135 Guattari, The Three Ecologies, 50.
136 J. R. R. Tolkien, Tolkien on Fairy-Stories (London: HarperCollins, 2008), 75. Tolkien, a devout Catholic, is interested in eucatastrophe because he sees it as having a religious function. He takes the resurrection in the Catholic bible as an example of eucatastrophe, arguing that “in the ‘eucatastrophe’ we see ... a brief vision ... of evangelium in the real world.” Ibid., 77. Evangelium refers to the teachings of Jesus in the Catholic bible; therefore, Tolkien's argument is that the eucatastrophe of Jesus' resurrection provides earthly humans with a glimpse into a joyous, heavenly afterlife, providing them with hope in the face of a seemingly hopeless world. Ibid., 77. As my discussion will make apparent, my argument about the function of eucatastrophe in Nymphomation follows a different trajectory, one that does not pursue the notion of religious epiphany.
137 Tolkien, Tolkien on Fairy-Stories, 75.
138 Suvin, Metamorphoses of Science Fiction, 3–15.
the existence of *dyscatastrophe*, of sorrow and failure,” it does deny “(in the face of much evidence, if you will) universal final defeat[,] ... giving a fleeting glimpse of Joy, Joy beyond the walls of the world, poignant as grief.”

139 *Nymphomation*’s “happy ending” demonstrates a resistance to representing “universal defeat;” the latter, in terms of my reading of the novel’s logic, would have involved showing that the stronghold of the discourse of post-industrial capitalism over mental, social and environmental ecologies is unassailable. Instead, the novel’s eucatastrophe represents a “glimpse of Joy” in which, emerging from within an existential Territory dominated by post-industrial capitalism, a particular combination of components do coalesce to produce an a-signifying rupture, which in turn, do function as catalysts for events that lead to positive and wide-ranging mental, social and environmental changes. *Nymphomation*’s eucatastrophe thus provides a counter-narrative to the dystopian vision of inescapable corporate control and capitalist hegemony that the novel sets up in its exposition and development.

More broadly, the eucatastrophe provides a counter-narrative to the influential Frankfurt School-style critical theories of media and capitalism to which the novel’s representations of post-industrial capitalism speak. I see *Nymphomation*’s “happy ending” as the textual element that has challenged the wisdom I have received from pessimistic strands of critical theory that emphasise the ways capitalism reproduces and expands its reach. This “glimpse of Joy” is the particular textual element that has coalesced with my training in critical theory, my research into ecologically-oriented scholarship and my recent avid attention to ecological issues in such a way as to shape my ideas and behaviours. That is, it is an example of the immaterial (a literary representation) impacting upon the physical (my behaviours) via the challenge the novel’s representations have posed to my thinking. As I will discuss in the Conclusion, I am enticed by the idea of profound change emerging from the chaotic and complex encounters that occur even within homogeneous discursive systems, as is the vision offered in *Nymphomation*’s eucatastrophe, and so I now seek to “find this eco-logic [which, as I have argued, I find in the novel’s climax and resolution] equally at work in everyday life, in social life at every level.”

140 In other words, far from being a convenient and glib way to tie up narrative ends, I see the novel’s happy ending as key to its ecological-dimension and effect upon me as a reader.

139 Tolkien, *Tolkien on Fairy-Stories*, 75.

Overcoming the Logic of Hierarchal Dualisms

Read as a cultural solution to the city’s social and environmental problems, *Nymphomation* suggests that the emergence of the blurbflies’ “dream to win” order-words is superior to the reversal of values evident in the bombed-out basement of the Yawndale Monstermarket. Unlike Yawndale Monstermarket, where improved social and environmental relations are enabled by the absence and exclusion of the technologies of post-industrial capitalism, the “dream to win” order-words use existing blurbfly technology to encourage the Mancunians to engage with each other and their environment in ways that differ from the “norm.” Also, unlike the either/or logic that guides the value systems of both Yawndale Monstermarket and the AnnoDomino Company—that is, either post-industrial capitalism or a return to “nature”—the “dream to win” order-words promote the notion of both/and by encouraging the Mancunians to engage with their existing conditions in multiple and divergent ways. In short, the “dream to win” simulation not only accompanies the demise of AnnoDomino, it also brings about existential Territories that overcome hierarchal dualisms and encourage the Mancunians to continually question the naturalness of existing values and discourses, and to imagine alternatives to them.

Competing with this theme of the emergence of a radical non-dualistic epistemology, which arises from *Nymphomation*’s representation of the “dream to win” order-words, is the novel’s reproduction of dualism in its narrative structure. *Nymphomation*’s conservative eucatastrophe resolution does rely upon the hierarchal differentiation of “goodies” and “baddies,” where the former “win” and the latter “lose.” This is a contradictory tension that can be sustained—that is, left hanging without resolution—because *Nymphomation* is a fictional narrative and as such produces meaning through the complex interactions that occur between its representations and form and between these and the reader. As noted above, my reading of *Nymphomation* privileges the radical possibilities that emerge from what I identify here as *Nymphomation*’s contradictory engagement with dualism, borne out in the tension between its radical theme and conservative structure. However, there is an equal likely possibility of another reader, at another time, in another place and under another set of socio-physical conditions privileging the significance of the novel’s conservative “falling-back” upon dualisms, and thus interpreting the novel’s meaning(s) in another way. In terms of literary criticism, Roland Barthes’ ideas have been central to the

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141 For Plumwood’s philosophical discussion of this idea see *Feminism and the Mastery of Nature*, 60.
notion that literary narratives generate a plurality of meanings because they are rife with rich ambiguities and contradictions.\textsuperscript{142} In terms of this thesis’ engagement with Guattari’s ecosophy, however, the tensions arising from the novel’s radical theme and conservative structure can be seen as an example of a “catalytic segment” produced by the ambiguity of the “artistic” text, leading to an a-signifying rupture.\textsuperscript{143}

Indeed, the contradiction between \textit{Nymphomation}'s conservative structure and radical theme productively underpins my interpretation of the novel. I see the novel’s critique of post-industrial capitalism being conveyed through its dualistic structuring of “goodies” and “baddies” and its conservative eucatastrophe ending, while its development of a radical non-dualistic epistemology is conveyed through its thematic representation of “dream to win” as the optimal cultural solution to environmental deterioration. That is, my argument suggests that the contradictory elements of the novel’s resolution are the basis of the two-pronged ecologically-oriented ethics produced through the novel’s structure and themes. \textit{Nymphomation}'s fictional world has contributed to the emergence of my own ecosophic object in part because I am content to leave these contradictions unreconciled, but nonetheless exploit the different meanings they produce to develop an over-arching argument about the novel’s ecosophical significance. The novel's contradictory elements act as a-signifying “catalytic segments” that have given rise to “evolutive processes”;\textsuperscript{144} in turn, they have contributed to changes in my thinking and behaviour that break from the governing norms of the discourse of post-industrial capitalism, which pervades the existential Territory in which I exist.

\textbf{Section Four: Jazir}

Jazir is the stand-out hacker among Dark Fractals. He has a talent for playing video games, he has the ability to both write and hack computer codes, and he is skilled at modifying mechanical devices to create new technologies. His centrality as the novel’s foremost hacker and hero is secured when he is attributed the novel’s authorial voice at the narrative’s conclusion: “[t]hat’s it. I’ve [Jazir has] told this as best I can, from memories and imaginings” (362). My interest in Jazir resides in the novel’s depiction of his transformation from an entrepreneurial capitalist to an advocate for social-environmental justice. Jazir’s skills as a hacker are central to his development. The knowledge that he gains from hacking and the situations into which his hacking

\textsuperscript{143} Guattari, \textit{Chaosmosis}, 19.
\textsuperscript{144} Guattari, \textit{The Three Ecologies}, 44.
takes him underpin the emergence of his (posthuman) eco-subjectivity. That is, like Code's ecological subject, outlined in the Introduction, Jazir does not stand outside the systems that his hacking seeks to manipulate. Rather, he is represented as being affected by and becoming responsible for that which he hacks: the blurbflies. I will develop these points by considering the novel's representation of Jazir’s ontological transformation from human to becoming-blurbfly. Furthermore, I will discuss how Jazir’s ontological transformation is constructed as compelling him to advocate on behalf of the nonhuman other, and also how it is implicated in the novel's promotion of hybrid-migrant subjectivity as well-suited to retard the practices and challenge the norms that enable the progression of anthropogenic climates.

**Jazir the Entrepreneurial Capitalist**

The catalyst for Jazir’s transition to eco-subjectivity is a blurbfly bite. However, before being bitten, Jazir’s subjectivity is represented as being consistent with the values and behaviours engendered by the novel’s construction of the discourse of post-industrial capitalism. This is especially the case regarding his attitude towards the blurbflies. Jazir’s initial interest in the blurbflies is motivated by his desire to exploit them and profit from their technology—he manufactures and sells cheap knock-off blurbflies that inexactely replicate their advertising and flying capabilities (68-9). His interests construct his character as an entrepreneurial capitalist because he unproblematically sees the nonhuman as a resource for his personal profit; his “business” is the re-production of the mass-media vehicle through which post-industrial capitalism’s homogenous order-words are carried, and his production of cheap replica blurbflies references the real world mass-production of “fake,” second-rate items by exploited workers in “developing” countries to be bought by consumers in “first world” ones.

**Jazir the Human-Blurbfly**

Jazir’s relationship to the blurbflies changes after he is bitten by one, which happens while he is trying to dissect it. Jazir’s relationship to the blurbflies is radically altered by the encounter, a point which is well illustrated through Jazir’s recounting of his experience to Daisy:

[all I know is that since I got bitten ... I’ve been changing. It’s not bad, that’s the strange thing. ... I can see clearly, I’m infected with the bone-juice, the vaz. I’m
getting all slippy, like I can crawl through the spaces. Sometimes I want to stand on the tallest building and shout out loud to the city how fucking great the Anno-Dominoes are. Other times, I just want to throw myself off, and float, and glide, and swarm with the pack. I’m an advert. A living advert. No! OK, right ... but it’s good. It’s good because I’m fighting it. Don’t you see, some of the blurbs want out. They want their freedom. That’s why they're attracted to me. I can turn this knowledge against the bones[. ... Maybe I can find a way in [to AnnoDomino’s headquarters]? What do you reckon? You with me on this?

After being bitten, Jazir ceases to be interested in extracting profit from the blurbs' technology; instead, he has become interested in extracting the blurbs themselves from the control of the Company. He has become their human advocate in their struggle to gain freedom. Moreover, the change in Jazir’s perspective is accompanied by a shift in his ontological status. That is, he is becoming blurbfly-like himself. After being bitten, he conceives of himself as one of the blurbfly "pack," stating that he recognises himself as belonging to their species, as well as indicating his reassessment of the value of the blurbs—they are co-habitants of Manchester with whom he is eager to associate and identify, rather than exploit or dismiss as unimportant. This recognition and revaluation compels him to act on their behalf (in part) because he sees that his fate and their fate are inextricably linked. The blurbfly bite, then, represents the emergence of Jazir’s eco-subjectivity.

Jazir’s other-oriented, eco-subjectivity represents a radical departure from his former way of being and relating to the world (and that of the Mancunian masses). This is underscored by two significant points. The first concerns the unique event through which Jazir’s eco-subjectivity is produced, which is inaugurated through his corporeal encounter with the blurbfly, the blurbfly bite. To borrow Guattari’s terminology, the bite functions as the catalyst for an “a-signifying rupture,” propelling Jazir into a transversal relation with the AnnoDomino lottery simulation. Subjects exist in a transversal relation to society when their ideas, values and actions depart from those enjoined by the prevailing dominant discourse. In the case of Jazir, after being bitten, he no longer backgrounds, radically excludes or instrumentalises the blurbs. They are no longer an annoying pollutant to be battered away, but creatures with feelings and

145 Ibid., 44–5.
147 Plumwood, Feminism and the Mastery of Nature, 48–53.
identities; they are no longer entirely different from himself, but are likewise creatures with desires and emotions; and they are no longer a means to generating profit, but are creatures possessed of intrinsic value in their own right.

Significantly, whereas Guattari proposes that a-signifying ruptures are likely to occur through a subject’s encounter with an aesthetic object, it is Jazir’s somatic connection with the blurbfly that is depicted as instigating his transversality, which leads to the emergence of an ecosopic object. The blurbfly bite literally represents “the disturbance arising in the field of the other to which I am given that makes me, a subject, think [critically]; the other affects me, gets under my skin and that is why I am made to think.” In piercing Jazir’s skin—breaching the physical boundary that separates him from the other—the blurbfly quite literally opens Jazir to being affected by the other. The result of this is that it lifts him out of his self-centred desire to become rich (through the sale of replica blurbflies) and instead directs his interests and desires towards thinking about and responding to the needs of the other (liberating the blurbflies). Nymphomation, therefore, in addition to imagining a corporeal openness to the other as the foundation for breaking out of totalising frameworks, also inscribes it as the condition for instituting a relationship between the self and other that is based upon care.

Secondly, Jazir’s ontological transformation emphasises that this eco-subjectivity is of a different order to the capitalist subjectivity produced within the

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148 Guattari, The Three Ecologies, 45–6; Guattari, Chaosmosis, 90–1, 120–7.
149 Diprose, Corporeal Generosity, 126.
150 This interpretation suggests that Nymphomation advances the notion of an “ethic of care” as part of its imagined solution to the increasingly ruined social and environmental Manchester it depicts. Adeline Johns-Putra, writing with a critical interest in the use of the “ethic of care” within the context of environmentalist discourses, provides a neat description of both “care” and “care ethics”: “[b]y ‘care,’ I [Johns-Putra] mean a feeling of concern for the wellbeing and needs of others; by ‘care ethics,’ I mean an ethical position that takes this affective concern as its basis for action.” “Environmental Care Ethics: Notes Toward a New Materialist Critique,” Symploke, 21, no. 1-2 (2013): 126. Johns-Putra notes that dystopian fiction featuring anthropogenically changed climates often offers “object lessons in environmentalist empathy, suggesting that—quite simply—love will let us save, survive, or escape an ecologically degraded planet.” Care, Gender, and the Climate-Changed Future: Maggie Gee’s The Ice People,” in Green Planets: Ecology and Science Fiction (Middletown: Wesleyan University Press, 2014), 128. The interpretation of Nymphomation that I put forward in this thesis situates the novel within the category of novels that “imply that we [humanity] simply have not cared enough, and that the way forward lies in caring more.” Ibid. While not dismissing the notion that caring about human and nonhuman others is one way to deal with the problems and threats posed by anthropogenic climate change, Johns-Putra calls for this idea to be unpacked and interrogated, in order to understand and better negotiate the (gendered) power imbalances it often inscribes. Ibid., 129. My analysis of how Jazir comes to care about and advocate for the blurbflies (nonhuman others) goes some way towards intervening in the problematic hierarchal relationship set up by the “carer” (active) / “cared-about” (passive) relationship, but insofar as Jazir’s perspective, rather than the blurbflies, dominates the narrative, my reading does not fully realise Johns-Putra convincing appeal for care “to be recognised as intra-active: carer and cared-about are identities formed in a dynamic of agential separability. These entities come to be, that is, they come to matter, in the very terms of encounter.” “Environmental Care Ethics,” 129.
existential Territory of the AnnoDomino simulation. Namely, insofar as the notion of the human has been traditionally conceived in opposition to the animal other in the west, Jazir relinquishes his human status when he starts to become a blurbfly. Moreover, the way Jazir's eco-subjectivity is constituted disrupts the existing order by overcoming the logic of hierarchal dualisms: Jazir’s eco-subjectivity does not, like the bombed-out Yawndale Monstermarket, reverse the binaries of culture-technology/nature and human/animal. Rather, it represents a different way of being altogether, and as such resists reproducing inequality based on exclusion and denial of the other. Jazir's reports of being "slippy," feeling like he can crawl between spaces, and having the compulsion to leap from the tops of buildings suggest that he is no longer fully human, but is in a transitory state between being a human and being a blurbfly.

This process of becoming-blurbfly, I argue, gives Jazir insight into the blurbflies' predicament. The significance of his move into this transitory state is well understood by drawing upon aspects of Deleuze's and Guattari's notion of "becoming-animal," as elaborated in *A Thousand Plateaus*:

[a] line of becoming ... passes between points, it comes up through the middle, it runs perpendicular to the points first perceived, transversally to the localizable relation to distant or contiguous points. ... [A] line of becoming has neither beginning nor end, departure nor arrival, origin nor destination[.] ... A becoming is always in the middle; one can only get it by the middle. A becoming is neither one nor two, nor the relation of the two; it is the in-between, the border or line of flight or descent running perpendicular to both.

In other words, becoming-animal involves entering into a transversal relation with the western concept of Man—the fully-human, stable, self-present, autonomous individual, who is defined by his difference from an animal/female other. To enter into and exist in the state of becoming-animal challenges the notion of Man, and the either/or logic that underpins it, because it involves the subject “sitting on the fence,” so to speak, that upholds the difference between Man and animal.

The threshold between Man and animal, the only temporal space where a becoming-animal subjectivity can exist, is an impossible position for Man to occupy

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151 Plumwood, *Feminism and the Mastery of Nature*, 4.
153 Ibid., 293.
154 Given my interest in Guattari's ecosophy, it is interesting to note that, in Conley’s critique of *The Three Ecologies*, she highlights that the notion of becoming-animal is “hardly resonant” in Guattari’s essay, whereas another idea introduced in *A Thousand Plateaus*, the “body without organs,” is rearticulated. *Ecopolitics*, 104. Conley argues that Guattari's deployment of the latter concept only (appearing in the guise of a machinic ecology), unduly emphasises the world itself as a “body-without-organs, insofar as its non-organic and mechanical strengths are underscored.” Ibid., 104.
because he is constituted through what he is not; that is, he can only be Man if he is not animal. A becoming-animal subjectivity, therefore, ruptures the logical conditions that undergird the concept of Man because it perpetually exists in the space in-between Man and animal, reconfiguring the self as a constantly-shifting entity constituted through its negotiation of the differences between the human and animal. By entering into the evolutive state of becoming-blurbfly, Jazir surrenders his self-contained and self-centred ego. He is neither fully-human nor fully-blurbfly, but rather both human and blurbfly—a state which reinforces his openness to the other, and also resists hierarchal duality. In short, the construction of Jazir’s metamorphosis suggests that eco-subjectivity involves more than simply changing one’s behaviour and attitude towards the nonhuman (in Jazir’s case, blurbflies); instead, it involves a profound restructuring of the notion of the Human.

**Somatic Connections and Corporeal Generosity**

More explanation is needed about why I interpret this bite and the altered ontology it produces as motivating Jazir’s other-directedness, given that insight into the plight of the human and nonhuman other need not necessarily prompt an individual to act on behalf of the other. As mentioned above, the bite prompts Jazir to see himself as part of an ecological system (one of the pack); therefore, it can be argued that he acts on behalf of the blurbflies because to do so also benefits him. As Timothy Morton puts it in *The Ecological Thought*: “[s]ince everything depends upon everything else, we have a very powerful argument for caring about things.”¹⁵⁵ Yet self-interest or self-preservation are not represented as being on Jazir’s agenda when he proposes to storm AnnoDomino’s headquarters to free the blurbflies. Rather, Jazir registers the blurbflies’ desire for freedom as his motivation: “[t]hey want their freedom. … Maybe I can find a way [to help them]” (274). In other words, Jazir is not motivated to help the blurbflies in order to secure his continued well-being: he helps them, rather, because he cares for their well-being; his advocacy is a gift underpinned by a selfless generosity.

Helpful for understanding how Jazir’s physical connection with the blurbflies (engendered via the blurbfly bite) could elicit such selfless and generous gift-giving is the work of feminist philosopher, Rosalyn Diprose, who writes with an interest in embodiment and ethics.¹⁵⁶ In *Corporeal Generosity*, Diprose argues that the gift and

generosity should be understood as ontological events. According to Diprose, being generous is not about giving away one’s possessions, but about giving away the possession of the “self-contained ego, that undercuts self-possession.”\textsuperscript{157} Drawing upon Jacques Derrida’s notion of différencé, Diprose explains that subjects, when they claim self-presence, incur a debt to the other by failing to acknowledge that his, her or its identity is constituted through the difference between the self and the other.\textsuperscript{158} For Diprose:

\begin{quote}
[g]enerosity is being given to others without deliberation in a field of intercorporeality, a being given that constitutes the self as affective and being affected, that constitutes social relations and that which is given in relation. … 
[Generosity] is not one virtue among others but the primordial condition of personal, interpersonal, and communal existence.\textsuperscript{159}
\end{quote}

In other words, the emotions produced through the subject’s encounter with the other are of the body and occur prior to reflection (intellectual interpretation), and it is these emotions that compel the subject to engage with and care about the other. According to this framework, a subject does not care about the other because he or she will receive something in return, which would be to enter into a symbolic system of exchange (reflective/mind), but because caring is the response the subject’s emotions provoke (pre-reflective/body)—caring is a reaction to the other’s affectivity that enables social interaction to occur in the first place.

As already discussed, the blurbfly bite propels Jazir into “being given to others without deliberation” by dismantling the barrier between his humanness and their blurbfly-ness in such a way that the possessive pronouns \textit{his-thiers} are redundant—he is human-becoming-blurbfly.\textsuperscript{160} Unlike the self-present subject who denies the other in the constitution of his or her selfhood, the role of the other in defining Jazir’s becoming-blurbfly eco-subjectivity is undeniable. Indeed, at times Jazir is represented as immediately open and vulnerable to being affected by the experiences of the blurbflies after being bitten. For example, one of the symptoms of Jazir’s blurbfly metamorphosis is that he begins to see and feel as the blurbflies do. The following is a paroxysm experienced by Jazir because one of the blurbflies witnessed a murder:

\begin{quote}
“Daisy …” Jazir rolled onto the floor, covering his head with his hands.
\end{quote}

\textsuperscript{157} Diprose, \textit{Corporeal Generosity}, 5.
\textsuperscript{158} Ibid.
\textsuperscript{159} Ibid.
\textsuperscript{160} Ibid.
Jazir shot up to a sitting position, his face creased with fear.

"Blurbfly. Street. Watching. Attacked. Another blurb, attacking mine ... killing mine ... evil fly. ... Must do ... something." (276)

Jazir’s openness to the other affects him at the level of sensibility and emotion so that his intuitive response to the blurbflies’ pain is to help—“must do something” (276). The novel represents him as experiencing the suffering of the nonhuman other as if it were his own, so he feels compelled to care and to help, even though to do so puts him at great personal danger and he is not being offered any recompense for his effort. In brief, I read the blurbfly bite as inviting Jazir to care for and act on behalf of the blurbflies because it initiates his openness to the nonhuman other. This makes him ready to be affected by the other at the pre-reflective level of the body, which in turn leads him to care for their suffering, because he feels it as if it were his own.

**Jazir’s Migrant-Hybrid Subjectivity**

_Nymphomation_ suggests that it is Jazir’s Indian-English migrant subjectivity that enables the emergence of his human-blurbfly eco-subjectivity, by contrasting him with another character called Nigel Zuze. Nigel is represented as emblematic of a traditionally empowered western subjectivity: he is a white, upper-middle class, rugby-playing medical student. Through his stereotyped persona, unsympathetic portrayal (he is a fascist bully) and juxtaposition with Jazir, the novel’s hero, _Nymphomation_’s politics, which are addressed below, are suggested to the reader. Nigel is also bitten and infected with the same mutagenic material as Jazir. However, unlike Jazir, the contagion does not prompt the emergence of Nigel’s eco-subjectivity; rather, it turns him into a lackey for AnnoDomin’s lottery game. I will argue that the cause of their differing reactions is twofold. Firstly, before being bitten, _Nymphomation_ represents Jazir’s and Nigel’s subjectivities as being formed within different existential Territories, and, secondly, the condition under which the contagion is transmitted to each character is different. Within the logic of the novel, these differences result in the characters’ differing reactions to the mutagenic material, a comparison of which reveals how the novel constructs hybrid-migrant subjects as well-situated to address environmental challenges in the anthropocene.

Jazir’s subjectivity is shown to be constructed within the existential Territories of his home and Manchester. _Nymphomation_ deploys a stereotyped representation of
an Indian household and family business, which constructs Jazir as being exposed to Indian culture. Broadly, Indian culture emphasises “patrilineally related generations, all living under one roof, working, eating, worshipping, and cooperating together in mutually beneficial social and economic activities” and is underpinned by the values of interpersonal “empathy, closeness, loyalty, and interdependency.” In *Nymphomation*, Jazir lives at home with his family, works at the family’s restaurant (the Golden Samosa), and treats his father with deference when talking to him directly. However, *Nymphomation* also represents Jazir as being influenced by the western culture to which he is exposed in Manchester, through the use of stereotypes associated with western youth culture. Jazir eagerly adopts the fashion, culture and attitudes of the city’s youth: he sports the trilby hat and sunglasses of his favourite pop idol Frank Scenerio, grows and consumes the drug called ultra garlic, and demonstrates rebelliousness when dealing with authority figures. Thus, Jazir’s construction emphasises his having a hybrid, migrant subjectivity that blends aspects of both Indian and English culture.

*Nymphomation* represents Jazir’s ability to blend aspects of his Indian-English heritage as leading to his being bitten by a blurbfly in the first instance. Jazir creates a password hacking program called “Info Josh,” which is an amalgamation of his knowledge of computer coding and Indian cuisine:

INFO JOSH

*Ginger, garlic water. Put them all into a karahi. Add chunks of information to brown. Cardamom, bay leaves, cloves. ... Stir and serve. The wanted knowledge will be revealed. Heat rating: red hot.* (71)

For Jazir, combining ideas from different cultures and different generations is “the way of the world”: “[f]ather Saeed Malik cooked up the spices; Jaz, the son, cooked up the info. Mutual engineering” (71). Jazir discovers that running the Info Josh program on a computer attracts and pacifies blurbflies, making them easy to catch. Running the program enables Jazir to seize one, which bites him when he begins to dissect it. Therefore, following this sequence of events, the novel suggests that Jazir receives his blurbfly bite because of his ability to expertly combine knowledge and expertise from his diverse Indian and English experiences.

As has been discussed above, I argue that this bite is represented as instigating the emergence of Jazir’s becoming-blurbfly subjectivity. However, one additional point

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needs to be made in service of the comparison I argue that the novel sets up between Jazir and Nigel. While Jazir’s new state of becoming entails that he relinquish his status as fully Human, he does not forgo his humanity entirely. That is, he does not become a blurbfly, but rather he remains in a state of becoming. The novel’s representations highlight that this is despite the mutagenic contagion forcing him to become ever more blurbfly-like by trying to compel him to sing the praises of AnnoDomino and jump from tall buildings. Jazir is able to exist in his becoming-blurbfly state in perpetuity because he is actively resisting the contagion: as he says to Daisy, “[i]t’s good because I’m fighting it [the urge to become fully blurbfly]” (274). Nymphomation suggests a correlation between Jazir’s well-developed ability to negotiate cultural diversity and his ability to negotiate radical inter-species encounters.

On the other hand, Nigel’s parochial English subjectivity is constructed as underpinning his inability to adapt to and resist being overcome by the jokerbone contagion. Nigel is not represented as being possessed of hybrid subjectivity, and demonstrates a resistance to incorporating or adapting to the presence of the racial-ethnic other before he is bitten. Nigel’s subjectivity is grounded in its active attempt to exclude the other, as the racist order-words of his blurbfly advertisement demonstrate—“English tools for English Schools! No foreign muck. Vote for purity!” (43). That is, his white-English identity is represented as founded upon its separation from and repudiation of the racial-ethnic other.

Furthermore, the conditions under which Nigel is bitten differ substantially from those that lead to Jazir’s bite. Nigel is bitten by the “jokerbone,” a skeletal figure that is summoned forth into reality from the virtual realm of the Hackle Maze simulation when the lottery’s random number generator settles on the double-zero combination (which was the number of Georgie’s avatar) (266). Nigel is the “winner” of the lottery in the week that the double-zero is drawn. The “prize” that he “wins” is a bite from the jokerbone figure (269). This injects him with the mutagenic contagion, giving him “knowledge [about] the inner working of the game” (269), and transforming

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162 Interestingly, by constructing Nigel as a white supremacist, Nymphomation refracts a trend that has accompanied mass in-migration in England: since the early 1970s, economic restructuring and increasing international cultural interchange have been experienced by many sections of the population as a direct threat to their livelihood, social conditions and identity. These shifts also question the dominance of previously privileged groups, leading to a reactive reassertion of nationalism and its symbols. As such [social and economic] changes have coincided with the arrival of new ethnic minorities, the tendency has been to perceive the newcomers as the cause of the threatening changes: an interpretation eagerly encouraged by the extreme right, but also by many mainstream politicians. Stephen Castles and Mark J. Miller, *The Age of Migration: International Population Movements in the Modern World*, 4th ed. (New York: Guilford Press, 2009), 38.
him physically: as one character notes just before being attacked by Nigel, “God, he looked bad, what had happened to all that beef [muscle bulk]? He looked like a ... [implied: skeleton]” (271). Importantly, according to the laws of the novel’s fictional reality, the mutagenic contagion compels him to bite and then be killed by another person, a process which passes on the knowledge. Unlike Jazir, whose encounter with the blurbfly is brought about through his attempts to hack into Manchester University’s database (an institution which is sponsored by AnnoDomino), Nigel is brought into contact with the jokerbone because he has bought into the AnnoDomino game.

Also unlike Jazir, once Nigel is bitten he does not attempt to resist what the contagion compels him to do. Nigel becomes elated with the power the knowledge of the game brings him—“he felt good. Fucking good! Suffused with knowledge” (269)—and he fails to apprehend that biting the next person will entail his own death. Instead, he remains egotistical: “[b]efore, he would have classed himself an expert only on rugby tactics and medical procedures[,] ... [b]ut now he was full of a new knowledge” (269). Nigel’s self-centred excitement is constructed as disarming him, reducing him to an instrument of the jokerbone’s machinations: without insight or resistance, Nigel seeks out another person to bite, who in turn viciously murders Nigel (275). His inability to adapt to the presence of the racial-ethnic other in Manchester is mirrored in his inability to adapt to the presence of the nonhuman other in his body. The novel associates Nigel’s pursuit of racial-ethnic purity as leaving him ill-equipped to effectively negotiate inter-species encounters. Reading Nigel’s construction in this way, his gruesome death is symbolic of the failure of the western model of the Human to survive in the anthropocene.

In summary: Jazir’s hacking activities and hybrid-migrant subjectivity bring him into physical contact with the nonhuman other. This somatic encounter causes the hacker to be profoundly affected by that which he seeks to manipulate and profit from, the blurbfly. It thrusts him into the state of becoming-blurbfly, relinquishing his conceptual status as human and enabling him to see and feel the world from the perspective of the nonhuman other. By the novel’s resolution, Jazir no longer sees himself as separated from his physical environment and the nonhuman others therein; instead, he sees himself as part of Manchester’s socio-physical (eco)system, which has shaped him and which he, through his hacktivism, is able to shape. I read the novel’s representation of Jazir’s transformation from entrepreneurial capitalist to social-environmental activist, and accompanying ontological shift from capitalist subject to ecologically-oriented subject, as conveying the notion that adapting to and mitigating social and environmental problems in anthropogenic ecologies will require ways of
acting, thinking and being that challenge the foundations of the western model of the Human.

**Summary**

Hacktivism—computer hackers plying their skills for politically progressive purposes—is the trope underlying this detailed analysis of *Nymphomation*. I have argued that the practices and ideals of hacktivism can be seen at work in *Nymphomation* through the particular way the novel selects and deploys literary devices. Moreover, my focus upon the hacktivism depicted in the novel points to the novel’s ecological dimension and ecologically-oriented ethics. *Nymphomation* uses analogy to portray its fictional version of Manchester as a concrete virtual reality system, through its parallel of the Hackle Maze with Manchester. According to the logic of the novel, this provides *Nymphomation*'s hacktivists with specific hardware, software and mediating technologies to hack: Manchester’s environment is the system’s hardware; the discourse of post-industrial capitalism is the system’s software; and the blurbflies are the mediating interface that connects the Mancunians to the system. Within the context of my reading of the novel’s eco-dimension, this analogy foregrounds the physical and the immaterial as being interconnected and mutually constitutive. In turn, the analogy provides the framework through which the novel’s depiction of physical reality as placing limits upon discursive constructions of reality can be identified. The Lucky Bleeders’ ability to engage with reality in a way that is presymbolic is central to how the novel represents AnnoDomino’s downfall and the restoration of the novel’s Mancunian society and environment.

The construction of Manchester as a concrete virtual reality software system is also the focal point through which I have explored *Nymphomation*'s critique of the discourses of post-industrial capitalism and neoliberalism. In particular, I have focused upon how the novel’s portrayal of these discourses represents them as socially and environmentally destructive. Within the context of the analogy the novel establishes between the city of Manchester and the concrete virtual reality technology of the Hackle Maze, the blurbflies and the “play to win” order-words they espouse represent the Mancunian system’s mediating interface and software respectively. The blurbflies’ “play to win” order-words are the mediating interface which connects the novel’s Mancunians to and immerses them within the AnnoDomino simulation. Importantly, this “simulation” is represented as reproducing the values of post-industrial capitalism and neoliberalism—namely, the over-valuation of wealth, consumerism and individualism. The novel’s representations suggest that being immersed with this
“simulation” (an existential Territory saturated by the discourses of post-industrial capitalism and neoliberalism) influences how the novel's Mancunian masses interact with each other and their physical environment, as well as the ability of the local government to act in the public interest. The Mancunian masses are portrayed as becoming increasingly greedy and uncaring (especially towards the human and nonhuman other) and Manchester's public institutions are shown to become increasingly competitive, privatised, and thereby, compromised. Both of these trends are represented as producing problems with pollution and exacerbating the plight of the homeless. As the immaterial stimulus of a simulation in a concrete virtual reality system produces physical changes in the human user through feedback loops, the analogy that constructs the novel's Manchester as a concrete virtual reality system provides the novel's explanatory framework for how the immaterial discourses of post-industrial capitalism and neoliberalism yield disastrous environmental consequences.

I read the novel as presenting two ways of hacking the AnnoDomino simulation in order to bring about alternative and/or improved social and environmental conditions. The first revolves around the novel's construction of a site called Yawndale Monstermarket. This site is constructed as a shopping centre that was bombed by eco-activists (rather than hacktivists) prior to the beginning of the novel's diegesis. In the absence of the blurbflies’ order-words, which promote the values and practice of post-industrial capitalism, and with the increased presence of "nature" at the site, an alternative discourse, founded upon values such as community and caring for the human other, is depicted as having emerged among the homeless who reside there. I have suggested that Nymphomation's portrayal of the setting and action that takes place at Yawndale Monstermarket represents an inversion of the values and practices that dominate the novel's depiction of Manchester. I have also argued, however, that the novel depicts the inversion of dominant values as an inadequate cultural solution to the socio-physical problems caused by post-industrial capitalism and neoliberalism. The alternative values that are shown to exist at Yawndale Monstermarket are represented as being contingent upon the homeless being present at the site (a limitation of the ethic of proximity), and because the site is separated from the rest of Manchester, it does not challenge the existing dominant norms, but rather exists alongside them (as a heterotopia).

The second vision of hacking represented in the novel involves the transformation of the blurbflies' order-words from “play to win” to “dream to win.” I understand this to be the novel's clearest evocation of hacktivism. Firstly, the blurbflies’ order-words are transformed because of the actions of the Dark Fractals, the novel's group of hackers. Secondly, they hack AnnoDomino for reasons of social justice: they
are motivated by the desire to stop AnnoDomino from having some of its players murdered, and in the case of Jazir, he is constructed as being motivated by his desire to emancipate the blurbflies from AnnoDomino’s control. Thirdly, the hacktivists’ actions are depicted as resulting in the alleviation of the social and environmental problems that AnnoDomino’s oppressive “simulation” instantiated. Fourthly, these broad-sweeping social and environmental changes are represented as being the result of the Dark Fractal’s ability to modify the parameters of the AnnoDomino “simulation.” That is, the transformation of the blurbflies’ order-word from “play to win” to “dream to win” is shown to inaugurate a discourse that values creativity over profit (a depiction of the emergence of the ecosophic object). I read the novel as suggesting that hacking the dominant discourse (simulation), as the Dark Fractals do, is a robust cultural solution that will lead to improved social and environmental conditions, because it transforms the value systems that shape how humans know and act in the world.

*Nymphomation* also presents the figure of the hacker as the agent of positive social and environmental change in a world dominated by information technology. This is evident in the character of Jazir, whose hacking abilities are central to the novel’s eucatastrophic resolution. However, in addition to Jazir’s hacking skills, his migrant subjectivity and somatic encounter with a blurbfly are represented as integral to his activist inclinations. The blurbfly encounter leads to his transformed ontological state—human-becoming-blurbfly—which is as central to bringing about the novel’s resolution as are Jazir’s hacking abilities. Through the combination of these factors, *Nymphomation* suggests that improving environmental conditions must be underpinned by reconceptualising the ontological status of the Human in the western philosophical tradition. That is, *Nymphomation* suggests that humans will have to conceptualise themselves as part of the ecosystem in which they exist, rather than thinking of themselves as separate from it.

Hacktivism has been a productive lens through which to explore the novel’s eco-dimension and its ecologically-oriented ethics. It has provided a useful framework for discussing how the novel foregrounds the immaterial and the physical as being profoundly interconnected, through its representation of humans as connected to their socio-physical ecosystems via the same system of cybernetic feedback loops that connect users to concrete virtual reality systems. Furthermore, it has provided a launch pad from which to consider how the novel’s deployment of literary devices suggests that (in addition to technological and policy changes) the process of improving social and environmental conditions requires the interrogation and modification of value systems and entrenched philosophical concepts.
Chapter Two: *Pollen*

**Introduction**

*Pollen* presents two kinds of desert. One is the sterile Northern English “countryside” that readers encounter in *Pollen*’s exposition:

> the earth was one step away from death around here, since the Bad Blood had fallen. Thanatos, the big papers had called it. … The world beyond the cities was a desert of dreams. It rained about once every six months this far out from the towns[…] … Nothing can grow in such festering soil. (14–6)\(^1\)

The other, by contrast, is an overly fertile central Manchester that is a feature of the narrative’s development:

> the road was a carpet of soft blooms[…] … The traffic lights at Oxford and Whitworth were entangled by vines. It was difficult to see the lights change, red to yellow to green; everything was green stems, red and yellow flowers. … The fever had made a flourishing desert out of [the] city. It was a Mancunian paradise that nobody wanted. (153)

While one desert is sterile and the other is fecund, both represent apocalyptic visions of eco-catastrophe.

*Pollen*’s eco-catastrophe will be the focus of this chapter, which will explore the cause the novel attributes to the advent of eco-catastrophe, the “solution” the novel invents for its reversal, and the significance of these plot points—as well as of *Pollen*’s other literary properties—as ways to engage with the notions of ecological thinking and ecosophy. Through a detailed textual analysis, I will argue that *Pollen* develops an environmentally-oriented ethics that, on the one hand, cautions against an over-emphasis of the notion that reality is *constructed in* discourse, and on the other, suggests that some discourses are better than others at encouraging people to care for and care about the condition of the nonhuman other.

This interpretation of *Pollen* emerges in large part because of the unusual cause and cure the novel envisions as driving its eco-catastrophe. Unlike other science fiction novels that feature apocalyptic and post-apocalyptic ecological scenarios, the eco-catastrophes in and around *Pollen*’s Manchester are not caused by resource scarcity and environmental despoilment,\(^2\) nor are they caused by technologies such as

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\(^1\) In this chapter, all in-text citations refer to *Pollen* by Jeff Noon.

\(^2\) Brian Stableford notes that many science fiction writers of eco-catastrophe attach their scenarios to a Malthusian population explosion. “Science Fiction and Ecology,” in *A Companion*
pesticides, genetic engineering, or nuclear warfare or accidents. Rather, in *Pollen*, stories are the source of and solution to the eco-catastrophes the novel depicts.

In order to explain how the novel makes this connection between eco-catastrophe and stories, some aspects of *Pollen’s* plot and fictional world need to be briefly outlined. As noted in the Introduction, Vurt is the novel’s version of a virtual reality technology in which dreams are recorded on a “replayable medium, a biomagnetic tape coated with *Phantasm Liquid*” (3). In *Pollen*, Vurt technology thoroughly permeates Mancunian society—it is used in the entertainment and taxi service industries, for policing and imprisonment, and to visualise and archive data. However, unbeknownst to the Mancunians, the story characters that are in the recorded dreams (hereafter, Vurt-story characters), are capable of “self-dreaming” (3). That is, the Vurt-story characters are a kind of artificial intelligence who have agency and desires of their own. According to *Pollen’s* plot, these sentient Vurt-story characters want to exist in the “real,” rather than only in the Vurt, and it is their encroachment on “reality” that results in the eco-catastrophe that turns the city’s flora wild and kills its citizens. In *Pollen*, then, the Vurt-story characters can be seen as a metaphor for the power of stories to shape reality: the novel’s eco-catastrophes show humans as having become the “victims” of the narratives they have created, and over which they have lost control.

*Pollen* represents two factors as enabling the reversal of this eco-catastrophe. The first is a textual element that functions as a marker of ecological limits, called the “dodo beetle.” Despite the power of the Vurt-story characters to shape “reality” and cause ecological havoc, the dodo beetle limits the extent to which they can do so. This ultimately leads to the Vurt-story characters’ retreat from “reality,” which, in turn, results in the restoration of a habitable environment. The second is a conceit that juxtaposes “myths” and “maps” as a way to suggest that some “stories” (read:...
discourses) are better than others at fostering values and practices that will allow ecosystems capable of supporting humans and other organic life to thrive. Pollen associates myths with ways of knowing, being and acting that help characters to apprehend how they are interconnected with their socio-physical ecosystem, whereas it associates maps with ways of knowing, being and acting that encourage characters to see themselves as separate from and in control of their socio-physical environment. When Pollen’s protagonist comes to see the world through the discourse of the ancient Greek myth of Persephone—a myth about “nature”—the path to environmental restoration is opened (how the novel appropriates and reworks this myth will be introduced below). Through these representations, Pollen conveys the notion that physical reality places limits upon discursive constructions of it (limits that humanity should account for to help enable their continued existence), and that the values and practices engendered by different discourses have the power to foster or thwart ways of knowing, being and acting that are mindful of ecological interconnectedness.

In short, the eco-catastrophe Pollen stages is both brought about and reversed by stories. Stories that are excessively powerful and dominant lead to eco-catastrophe, and stories that are conscientious of ecological interconnectedness and ecological limits lead to eco-restoration. This preoccupation with the effect of the immaterial (Vurt, story and discourse) on the shape of the physical (biological matter, humans and animals), and vice versa, makes Pollen a productive text for pursuing ecosophical interests. This is because ecosophy likewise grapples with the complex socio-physical implications arising from the interconnectedness of the immaterial and the material in the hope of generating ways of knowing, being and acting that will bring about improved social and environmental conditions.

The following chapter provides a necessarily selective analysis of some of Pollen’s formal literary properties, narrative elements and themes. Pollen is a novel that overflows with ideas that are productive for critical interrogation (for example, necrophilia and death, and drug and youth culture). In keeping with this thesis’ original reading of the ecological dimensions of Noon’s work, I have chosen to focus only upon aspects of the novel that engage with ecosophy’s interest in the ecological

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4 As discussed in the Introduction (under the heading “Studying Literature in the Anthropocene”), story/narrative, discourse, and language in general frame how humans come to know the world and their place in it by emphasising some connections and differences between ideas and things more than others. Drawing on this common attribute, in combination with Pollen’s representation of stories as instantiating broad-reaching socio-physical changes, I will consider the novels representation of “stories” as functioning like “discourses” in this chapter.

5 Butler, “Journeys Beyond Being.”

6 Moody, “Social and Temporal Geographies of the near Future.”
interconnectedness of the immaterial and the physical. In Section One, I will discuss the novel’s three “paratexts”—one epilogue and two prologues—highlighting how they frame Pollen’s striking representations of interconnectedness. In Section Two, by focusing upon a motif called the “Flower Map,” I will examine the congruence between the novel’s representation of eco-catastrophe and Jean Baudrillard’s concept of hyperreality. I will argue that the way this congruence is realised in the novel—the emergence of the hyperreal aligns with the advent of eco-catastrophe—offers a way to critique Baudrillard’s concept. That is, the hyperreal stands for a story about “nature” that has become too dominant, leading to eco-catastrophe. In this section, I will also consider the construction of the “dodo beetle” and how it functions as a marker of ecological limits in the text.

Section Three analyses how the novel represents the Mancunians as having brought the eco-catastrophe on themselves through their complacent adoption of technologically efficient devices that are enabled by Vurt. This is to suggest that the novel echoes a critique common to other science fiction eco-catastrophes:

[from the 1960s onwards, almost all ecocatastrophe stories written by genre SF [science fiction] writers had been infected with a scathingly bitter irony; most genre writers who used the theme seemed to feel that human beings would get no more and no less than they deserve if they were to destroy their environment and poison their world.]

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In *Pollen*, however, it is not the technologically efficient devices themselves that have destroyed and poisoned the characters’ environment. Rather, by adopting Vurt technologies, the Mancunians are shown to have handed the Vurt-story characters—who control such technologies—to much power, leaving them defenceless in the face of the Vurt-story characters’ ecologically disastrous machinations. Moreover, I will argue that *Pollen* suggests, through its construction and juxtaposition of the characters Columbus and Coyote (and their respective Xcab and Black Cab taxi services), that an unquestioning acceptance of the value of technologically-enabled efficiency underpins the Mancunians uncritical adoption of Vurt technologies. The discourse of technological efficiency, like the notion of hyperreality, is a “story” about “reality” that has become too dominant, resulting in eco-catastrophe. In this way, *Pollen* explores an idea germane to ecosophy, namely, that discursive systems of value have the potential to shackle humans to ideas and practices that threaten the ecological systems that support organic life.  

Finally, in Section Four I will analyse the novel’s juxtaposition of myths and maps, focusing upon how the novel endorses the former and demonises the latter as a discourse that is unable to engender ecologically responsible relationships between the human and nonhuman. In this section, I will also explore the significance of the novel’s representation of the radical nonhuman other for the novel’s ecologically-oriented ethics by examining its depiction of the relationship between the novel’s protagonist and her “zombie” son.

**Pollen and the Myth of Persephone**

*Pollen* is a convoluted novel that draws heavily upon existing stories to develop its characters and plot. Owing to *Pollen*’s complexities, this chapter will be necessarily descriptive as well as analytical. In order to more fully introduce the aspects of *Pollen*’s fictional world that are most pertinent for the ecosophical interests of this chapter, I will briefly describe how the novel reworks the myth of Persephone in its vision of eco-catastrophe before beginning my close reading of the novel.  

*Pollen*’s eco-catastrophe draws from and transforms the ancient Greek myth of Persephone—a myth that provides a pre-scientific account of seasonal change. The myth’s eponymous character is the goddess of vegetation and spring. In this myth, the

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9 In Chapter One, I discussed *Nymphomation* as also exploring this concept. I focused upon that novel’s representations of the impact of post-industrial capitalism and neoliberalism upon the subjectivities of its Mancunians, and the subsequent negative influence this had upon the way they interacted with each other and the physical environment.

10 Barrett, “The Lucidity Switch.”
nubile Persephone is snatched from the surface of the earth by Hades, the god of the underworld, who takes her as his wife. Persephone’s mother Demeter, the god of agriculture and harvest, becomes distraught by her daughter’s disappearance. While searching for Persephone, she neglects her agricultural duties, meaning the “rain no longer refreshed the drooping flowers, the grain was parched by the ardent rays of the sun, and the grass all perished.” Upon seeing the humans’ plight, Zeus sends the messenger god Hermes to return Persephone to her mother. Hermes does so, but not before Persephone has eaten some pomegranate seeds—and a law of the underworld is that anyone who tastes the food of Hades must remain there with him. Because of this, Demeter and Hades make a compromise: Persephone will live with her mother on the surface of the earth for one part of the year and with her husband in the underworld for the other part. This placates Demeter; she renews her agricultural duties, allowing crops to grow again on the earth’s surface. Seasonal change, understood through this myth, is explained as follows: when Persephone descends into the underworld, vegetation withers and winter begins, but when she ascends to the surface of the earth, vegetation flourishes and spring starts.

In Pollen’s appropriation of the myth, Persephone’s entry into the novel’s fictional reality is aligned with the onset of an eco-catastrophe which is the driver of the main plot. The actions and role of Pollen’s Persephone closely follow the actions and role of Persephone in the ancient Greek myth. Her entry into the novel’s Mancunian reality from the Vurtual “underworld” occurs on “Monday 1 May” (5)—the first day of spring in the northern hemisphere—and her arrival is accompanied by the flourishing of the city’s plants, albeit into malignant species rather than beneficial agriculture. Once she has entered reality from the Vurt, which she does with the help of the Xcab Vurt-map, she releases Vurt-pollen spores. These spores have the capacity to “mate” with both the novel’s (post)human characters—via hayfever insemination, and the city’s flora—via more typical pollination processes. This results in a “new kind of hybrid. Human and plant” (156) that kills the inseminated host, replacing it with monstrous Vurt-real greenery. According to the novel’s logic, the metamorphosis of Manchester and its citizens into Vurt-human-plant hybrids allows the Vurt-story characters to control physical reality through the Xcab-map: “[e]ach pollen grain is a new road. If this new map succeeds, there will be no freedom in the city. The city will change to suit the map” (215). In the reproductive act, the Vurt-information encoded in the Vurt-pollen merges with the protein-information in the DNA code of the biological entity; digital code and protein code are imagined to be able to merge because both are kinds of information. Pollen constructs their merging as a dystopian nightmare in

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which all hybrid Vurt-biological entities will become subjugated to those who have the power to control Vurt-technology.

The myth of Persephone is also invoked in Pollen to explain the sterility of the northern English countryside. As one character notes, in an analeptic episode, Demeter “sent a deadly flower [called Thanatos] to your world [Manchester], making the ground as dry and as cold as her own heart” (323). In Pollen, as in the myth, Demeter did so because of her anger and anguish at the disappearance of Persephone. As will be discussed in Section Four, despite the initial involvement of characters from the myth of Persephone in the novel’s eco-catastrophe, at the novel’s climax, Pollen privileges myths over maps as a discourse that encourages humans to apprehend ecological interconnectedness.

**Section One: Paratexts**

Before Pollen’s readers encounter the sterile plains of Northern England, the fecund jungle of Manchester or the novel’s reworking of the myth of Persephone, they encounter three brief extra-diegetic preludes. The first is an epigraph that quotes the traditional English folksong “John Barleycorn” (circa 1650). The second and third preludes are prologues: one is written in the style of a historical text that has been “[e]xtracted from The Looking Glass Wars by R. B. Tshimosa” (3-4), and the other is written from the first-person perspective of Sibyl, Pollen’s main protagonist, dubbed her “Sibylline book” (7-8). David Seed, following Gerard Genette’s work on “paratexts,” argues that, in science fiction, textual preludes, such as epigraphs and prologues, function as thresholds or frames that mediate “between the reader’s familiar world and attendant assumptions about reality, and the events narrated [in the science fiction text] which will challenge those assumptions.”12 I will argue that Pollen’s paratexts mediate between the familiar and the fantastic by setting up familiar dichotomies (such as culture/nature) that are subsequently problematised in the main narrative. Moreover, I suggest that it is through this technique—of setting up and then problematizing dichotomies—that the novel foregrounds the immaterial and the physical as ecologically interconnected.

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The epigraph "John Barleycorn" frames two key points for my examination of *Pollen*’s ecological dimension. Firstly, it structures the relationship between humans and “nature” in terms of a dichotomy; and secondly, it sets up one of the novel’s primary conceits—that the stories humans tell about “nature” have the power to both shape it and destroy it (which offers a way to engage with ecosophy’s interest in the ecological interconnectedness of discourse and physical reality). In order to contextualise these points, I will firstly introduce the folksong. The opening stanza of "John Barleycorn," as quoted in *Pollen*’s epigraph, reads:

There were three men came out of the west
Their fortune for to try
And these three men made a solemn vow
John Barleycorn must die.

As the folksong progresses, the audience learns that John Barleycorn is not a person, but a personification of a crop of barley, and the three men who want him dead are farmers. The verse continues by describing the agricultural and manufacturing processes by which barley is made into alcohol: farmers, field workers and a miller plant, harvest and grind the barley, turning it into whisky and beer. However, these seemingly benign farming practices are described as acts of brutality in the folksong:

They’ve [the farmers have] hired men with the scythes so sharp
To cut him off at the knee
They’ve hired men with the sharp pitchforks
Serving him most barbarously.
They’re hired men with the flailing sticks
To cut him skin from bone
And the miller he has served him worse than that
For he’s ground him between two stones.

The imagery of this scene does not simply depict an active Man working upon a passive Nature, rather it evokes a violent encounter between one group of men who are wielding tools as weapons, torturing another man who is defenceless. Through the technique of personification, the actions of the farmers, field workers and miller are inscribed as acts of brutality, and “nature” is portrayed as the victim of human agriculture and manufacturing practices.

By contrast, in the ballad’s final stanza, John Barleycorn ceases to be the victim of the men’s barbarous acts:
And little Sir John in the nut-brown beer
And the whisky in the glass
And little Sir John in the nut-brown beer
Proved the strongest man at last.

John Barleycorn's strength in the ballad is twofold. Firstly, it resides in his regenerative capacity: despite being buried in the ground and pronounced “dead,” he “sprung up his head” in springtime; and despite being cut and pulverised, he is reborn in whisky and beer. In this way, John Barleycorn is constructed as a symbol of “nature’s” resilience despite the attempts of humans to dominate and control “him” using technology. Secondly, John Barleycorn's strength resides in the capacity of alcohol to change the drinker. Jack London describes this strength in his autobiographical novel, *John Barleycorn: Alcoholic Memoirs*: “[s]ometimes, under the spell of John Barleycorn, the most frightful things were done—things that shocked even my case-hardened soul … is there a greater maker of madness of all sorts than John Barleycorn?”13 John Barleycorn exerts his power over humans only after they have transformed him into alcohol. Therefore, it is human endeavour that enables “nature” to seek revenge on its human torturers, which it does by inflicting drunkenness (and hangovers) on them.

As this description of “John Barleycorn” makes apparent, the folksong centres upon an adversarial relationship between humans and technology (the farmers and their tools) on the one side, and “nature” (John Barleycorn) on the other. They are thus related to each other in terms of a dichotomy. To argue my point concerning the significance of this construction for my reading of Pollen’s ecological dimension, I need to return to (and offer a more refined explanation of) a theoretical idea outlined in the Introduction and developed in Chapter One: namely, Plumwood’s approach to dualism. I have already noted Plumwood’s contention that contrasting pairs underlie the dualistic logic that legitimates the domination and oppression of “slaves” (for example, “nature,” animals, women and non-whites) by “masters” (for example, humans, men and whites), and that these hierarchal relations are naturalised and maintained through techniques of dualism such as backgrounding, radical exclusion and instrumentalism.

Here I will draw attention to a subtle difference in meaning that Plumwood attributes to the terms “dichotomy” and “distinction” on the one hand, and “dualism” on the other. Plumwood notes that while making distinctions between two kinds of things “is the key element in establishing a dualistic relation[,] … by no means [does]...

every dichotomy result in a dualism.”\textsuperscript{14} Indeed, Plumwood maintains that it is “hard to imagine how anyone could get along without making at least some of the distinctions in the list of dualisms [such as, man/woman or human/nature].”\textsuperscript{15} For Plumwood, then, the difference between “distinction” or “dichotomy” and “dualism” is the “way distinctions have been treated, the further assumptions made about them and the relationship imposed upon the relata which make the relationships in question dualistic ones.”\textsuperscript{16} The assumption that Plumwood argues attaches itself to dualisms, but not to dichotomies, is an “intense, established and developed cultural expression of ... a hierarchical relationship ... [that makes] equality and mutuality literally unthinkable.”\textsuperscript{17} So whereas hierarchical dichotomies “can be seen as open to change, as contingent and shifting,” dualisms—through the techniques of backgrounding, radical exclusion and instrumentalism—are seen as closed, universal and fixed.\textsuperscript{18}

As will be demonstrated shortly, the relationship between human and “nature,” in “John Barleycorn,” is more akin to a dichotomy than a dualism because the terms are not hyper-separated. In turn, this frames the relationship between humans and “nature” as open to change: a notion, as I will argue in Section Four under the subtitle “Myths,” which is conveyed through the novel’s final image, when the oppositional distinctions that the novel sets up between the contrasting pairs of human/nature, technology/nature and man/woman are replaced by their re-inscription as mutually beneficial terms. In other words, the dichotomous, but not dualistic, construction of human and “nature” in “John Barleycorn” frames the distinctions and separations of Pollen’s narrative as being open to change and as interconnected, rather than separated—and these are representations consistent with the notion of ecological thinking.

In “John Barleycorn,” human and “nature” are not represented as hyper-separated insofar as they exhibit some similar characteristics, and thus are constructed as being dichotomous rather than dualistic. As Plumwood notes:

\[ \text{[f]or distinctness ... there need be only a single characteristic which is different ... in order to guarantee distinctness according to the usual treatment of identity. ... [However,] according to dualistic relationship ... the master tries to magnify, to emphasise and to maximise the number and importance of} \]

\textsuperscript{14} Plumwood, Feminism and the Mastery of Nature, 47.
\textsuperscript{15} Ibid.
\textsuperscript{16} Ibid.
\textsuperscript{17} Ibid.
\textsuperscript{18} Ibid.
differences and to eliminate ... shared qualities, and hence to achieve maximum separation.19

In the final “turn” of “John Barleycorn,” the (non-intentional) agency of “nature” is foregrounded as much as the (intentional) agency of the humans in the folksong’s opening. The eponymous John Barleycorn exerts his strength over the humans by transforming them from the inside, proving himself the “strongest man at last.” This highlights humans and “nature” as having shared qualities, thus diminishing their separateness.

The method by which “nature” is constructed as exerting power over humanity in the novel resonates with Pollen’s narrative. Just as John Barleycorn turns humans into inebriates after they imbibe him, “nature”—that is, the postnatural Vurt-pollen spores—turns Pollen’s characters into Vurt-plant-human hybrids. A Vurt-pollen spore infects its host by lodging itself in a “human’s nostrils ... [whereupon it] releases its proteins, causing a breach in the nasal cavity ... [eventually making] its way down to the womb ... [and] fusing with the human egg” (156-7); this process seems to kill the host, but actually turns them into a seed, which is why the uninfected characters “must burn all the bodies [of the infected characters]. ... They [the infected] mustn’t be buried. ... It would be like burying a seed” (157). Like the humans in “John Barleycorn,” the characters in Pollen, are vulnerable to the (non-intentional) agency of the “nature” that penetrates and transforms them, a “nature” from which they are not separate. Reading across “John Barleycorn” and Pollen, the regenerative capacity of “nature” in “John Barleycorn” is shared by the infected humans in Pollen: once “killed” by Vurt-pollen spores, Pollen’s characters can be reborn. What characterises “nature” in the epigraph also characterises humans in the novel, and this reinforces the commonalities, rather than the differences, between these two terms. In short, “John Barleycorn,” sets up the novel’s depiction of human and “nature” as distinct adversaries, but frames them as having similarities and being interconnected, which suggests that their oppositional relationship is open to transformation.

Additionally, through its introduction of the novel’s main antagonist, the “John Barleycorn” epigraph is involved in framing an idea central to the novel’s eco-project—namely, the notion that immaterial stories about “nature” can change physical reality. While it is typical for epigraphs to introduce a novel’s theme, it is less typical that they introduce a novel’s characters.20 Nonetheless, reflecting upon the epigraph after having

19 Ibid., 49.
20 Seed, “Framing the Reader in Early Science Fiction,” 149.
read *Pollen*, it becomes apparent that the text of “John Barleycorn” forms (part of) the
background story of the novel’s main antagonist—a Vurt-story character whose
preferred name is John Barleycorn, but who in fact is the amalgamation of various
fictional characters, including Hades from the myth of Persephone:

[you [Sibyl] were enquiring about my name. I think in your country, they call
me Fiery Jack? Is that correct? Or else the devil himself, Satan, the serpent.
Hades. Ah, the endless bounty of the human imagination[,] ... John Barleycorn.
Yes, that is my favoured name. I am your very own god of fermentation, the
spirit of death and rebirth in the soil. I am your wine. (314-5)

As in the folksong, *Pollen’s* Barleycorn has been “served ... barbarously” by humanity
(324); however, this is not because of the torturous treatment by humans of the barley
he personifies, but because of the “puny stories” they have invented about Hades and
Barleycorn, which “confine” his experiences and actions (322). For example, another
character notes that, in the myth of Persephone, humans “banished him [Barleycorn] to
the underworld. Because of this John Barleycorn is angry with us, still” (213). The
significance of Barleycorn’s insight into the influence of narrative (and discourse) upon
how individuals are expected to act will be discussed in Section Two. Here I want to
focus upon how the conflation of the characters of John Barleycorn and Hades is the
strategy by which the latter is associated with “nature” in *Pollen.*

In the myth of Persephone, the character of Hades is not associated with
agriculture, vegetation or spring, as are Demeter and Persephone. However, through a
chain of intertextual connections, which the novel explicitly draws for the reader,
*Pollen* establishes a connection between Hades and fertility:

John Barleycorn is one of the oldest stories, and one of the most popular. One of
the best. Because of this he has many names. The green man. Fertility. Swamp
Thing. The horned god. Because of his pagan image he was stolen by the
Christians, turned into the horned devil, Satan, the serpent, Lucifer. In the old
Greek myths, he was called Hades. (213)

In turn, *Pollen* uses Barleycorn’s overdetermined identity to explain how the sterility
casted by Demeter’s Thanatos flower was reversed in Manchester with the help of the
Vurt-story character Barleycorn/Fertility/Hades. In *Pollen’s* reworking of the myth of
Persephone, Miss Hobart, the inventor of Vurt,²¹ plays the role of Zeus. Hobart visits
Barleycorn in the Vurt to help relieve the “plague that Demeter sent to England” by

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²¹ Miss Hobart’s full name is Celia Hobart. She is a character that Noon includes in each novel of
plays the Lucky Bleeder called Celia.
convincing him to help the humans (324). Despite his being “quite pleased” by the
humans’ suffering, Barleycorn is so impressed by Hobart that he grants her:

access to pluck a green feather from one of the birds that flew in Demeter’s
forest. Fecundity 10 you [the humans] called that solution. ... And so we
[Barleycorn, Demeter and Hobart] agreed, according to the story, my wife
[Persephone] would spend two-thirds of the year with her mother, only one-
third with me. And so the seasons were made. (324)

Hades’ intertextual association with Barleycorn assigns the character agricultural
significance, foregrounding the novel’s preoccupation with narratives about “natural”
processes. Insofar as the eco-catastrophe staged in Pollen is caused by the Vurt-story
characters, the conflation of Barleycorn with Hades is significant. It suggests the novel’s
development of the abstract concept that, in addition to “nature” having the power to
influence the shape of humanity, the stories that humans tell about “nature” have the
power to influence the shape of physical reality, and therefore, also humanity. Thus, the
“John Barleycorn” epigraph helps to set up the novel’s thematic development of the
notion that the immaterial (stories) and material (the physical environment) are in a
relation of mutual influence.

**Prologues: The Looking Glass Wars and Sibyl’s Story**

Like the “John Barleycorn” epigraph, the “Looking Glass Wars” extract and
Sibyl’s Story frame Pollen’s eco-project. The “Looking Glass Wars” extract reiterates and
complicates the human/nature dichotomy set up in “John Barleycorn,” and Sibyl’s Story
underlines how human and “nature,” while differentiated, are interconnected, rather
than separated. In the following, firstly, I will outline the “Looking Glass Wars” extract,
analysing its construction of the human/nature dichotomy as a device allowing Noon to
interrogate hierarchal dualisms, and secondly, I will describe Sibyl’s Story, using the
ideas it introduces to discuss Pollen’s representation of human characters as porous—
open to and interconnected with the physical environments in which they exist.
The Looking Glass Wars

The “Looking Glass Wars” extract, like the “John Barleycorn” folksong, constructs the relationship between the categories that make up its subject matter in terms of battling groups; that is, in terms of a dichotomy. However, whereas the contrasting pair in “John Barleycorn” is human/“nature,” in “The Looking Glass Wars” extract, the pair is dream and reality (3). Considering this prologue in terms of the ideas raised in my discussion of the epigraph, I will offer a close reading of these contrasting pairs, arguing that they frame Pollen’s use of dichotomies throughout the narrative as a means of destabilising some of the conceptual separations that the four theorists of ecological thinking—Timothy Morton, Lorraine Code, Gregory Bateson and Felix Guattari, whose work I discussed in the Introduction—suggest prevent thinking in terms of interconnectedness. However, I must first outline the “The Looking Glass Wars” extract. In addition to framing Pollen’s ecological dimension, this prologue also functions more straightforwardly as an “infodump,” introducing the reader to some of the fantastic elements of the novel’s fictional world.23 It begins with an explanation of Vurt, which, as already noted in the Introduction, is a technology allowing dreams to be recorded and shared (3). Moreover, it introduces a point central to the novel’s action: “the ‘world of dreams’ very quickly achieved a life of its own” (3). In other words, the story characters that populate the Vurt have artificial intelligence, they are capable of “self-dreaming” (3). The Vurt-story characters’ attainment of artificial intelligence, the extract continues, led to a “series of battles … between the dream and reality”:

[all] the great theories of warfare can be reduced to a manifestation of greed. Thus it was that the creatures of the dream [the Vurt-story characters], as they grew more powerful, started to despise and look down upon the original dreamers, whom they called the mere “story-tellers” of planet Earth. Indeed, the creatures of the dream now saw their fantastic realm as a separate world, Planet Vurt. The “Virtuals” longed for independence. (3)

Through the portrayal of the Vurt-story characters and humans as being at war, the prologue structures their relationship in terms of a dichotomy—albeit one that seems

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23 Keen notes that “Pollen, in contrast to the rest of his [Noon’s] work, almost goes out of its way to provide infodumps, making it the most overtly science-fictional of his novels.” “Feathers Into an Underworld,” 103.
on the cusp of transitioning into a dualism (the Vurt-story characters’ see themselves as increasingly separate from, independent of and superior to the humans who have brought them into being). Nonetheless, the pitting of the Vurt-story characters against the humans in this prologue mirrors the dichotomous relationship between humans and “nature” in “John Barleycorn.”

Complicating this structural parallelism is a change in terms, from human/nature to dream/reality, a shift that is significant for the novel’s engagement with the notion of ecological thinking. This change destabilises the familiar hierarchical organisation of the human (superior) / “nature” (inferior) dichotomy—a move begun in the epilogue when “nature” is ascribed non-intentional agency—which reinforces the notion that the relationship between these terms is open to change. This destabilisation becomes apparent when the linking postulate (a concept discussed in the Introduction, “Section Three: Val Plumwood and the Logic of Dualism”) connecting these two dichotomies is made explicit, because it reveals how the term “human” is transported from the superior to the inferior position in the dream/reality construction. Both human/nature and dream/reality map onto the mind/body (nature) contrasting pair: 24 the postulate that humans are possessed of “mind” maps human/nature onto mind/body (nature), and the postulate that dreams are immaterial ideas formed in the “mind” maps dream/reality onto mind/nature (body). However, this prologue does not map the dream/reality pair onto the human/nature pair in a way that is consistent with their common mind/body (nature) connection. Instead, it constructs “human” and “dream”—which are both associated with “mind”—as opposing, rather than congruous, terms. By suggesting that Vurt-story characters are dominant and the humans inferior (the Vurt-story characters, as aforementioned, “look down upon the original dreamers,” the humans (3)), this passage aligns the Vurt-story characters with “dream” (“mind”) and the humans with “reality” (body and “nature”).

Through this chain of connections, the more typical representation of the western liberal human subject, as separate from nature, is radically destabilised because it diminishes the distinction between human and “nature” and suggests that they are intimately connected to each other, being members of the same category. Problematising the dominant human/nature dualism in this way—firstly, by de-naturalising it as a dichotomy open to change, and secondly, by conflating its terms—the “The Looking Glass Wars” extract, like the “John Barleycorn” folksong, frames Pollen’s use of dichotomies as a device through which the conceptual separation of categories, such as human and “nature,” can be challenged. (Examples of this are

24 Plumwood, *Feminism and the Mastery of Nature*, 43.
discussed in Sections Three and Four of this chapter). Destabilising the relationship between such terms is consistent with ecological thinking, which likewise interrogates such conceptual boundaries, and also ecosophy, which seeks to dismantle ideas and relations that have become immutable (“territorialised”).

Two additional points about this prologue are worth noting here. Firstly, the dream/reality dichotomy established in the “The Looking Glass Wars” extract announces that the relationship between the immaterial (“dream”) and the physical (“reality”) is a dichotomy that will be further explored in the novel. In Pollen, John Barleycorn—who functions as both a personification of “nature” and an immaterial Vurt-story character—is the “leader” of the Vurt-story characters’ attack on humanity. This makes more explicit the novel’s suggestion that the (immaterial) stories humans create to describe and explain “nature” have profound, and sometimes disastrous, effects upon the shape of (physical) “reality.” Secondly, the dream/reality dichotomy is destabilised in the prologue itself, through the comment: “[o]ne particularly weak point in the barrier between dream and reality existed in the psychic air that surrounded Manchester” (4). This suggests the novel’s interest in constructing (flexible) dichotomies, rather than (rigid) dualism, as it clearly represents the boundary between dream and “reality” as weak, and therefore easily transgressed. Depicting the barrier separating dichotomous terms as weak suggests their interconnectedness, which is a notion germane to ecosophy.

Sibyl’s Story

The second of the novel’s prologues is a brief first person exposition narrated by Sibyl and addressed to her daughter Belinda/Bodacia.25 It introduces Sibyl and Belinda/Boda as two of the novel’s main protagonists; more importantly for my

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25 Bodacia and Sibyl are both allusions to historical figures who have attained mythical significance. Bodacia, also spelled Boudicca, was an “ancient British queen who in AD 60 led a revolt against Roman rule.” “Boudica (Queen of Britain),” Encyclopedia Britannica Online (Encyclopedia Britannica, 2013), accessed 22 July 2014, http://www.britannica.com/EBchecked/topic/75413/Boudicca. Like her historical forebear, Pollen’s Belinda/Boda is involved in defending her turf (“reality”) against an external, invader (the Vurt-story characters). Sibyl, on the other hand, was a Greek prophetess in the late fourth century BC, who wrote a “famous collection of prophecies ... [that were] to be consulted only in emergencies.” “Sibyl,” Britannica Concise Encyclopedia (Chicago: Encyclopedia Britannica, 2012). For an analysis of the significance of Sibyl’s connection to apocalyptic prophecy and the novel’s narrative of eco-catastrophe see, Emma Nicoletti, “Virtual Catastrophe: The Ecologically-Oriented Ethics of Jeff Noon’s Pollen,” Colloquy: Text, Theory, Critique, no. 23 (August 2012): 43–5.
concerns, it also establishes the novel’s characters as hybrid posthumans. The particular way posthumanism is constructed in *Pollen* effectively conveys the notion that humans have always-already been open to and affected by the physical microorganisms that penetrate their bodies. In turn, this reinforces concepts explored by ecological thinking and ecosophy: namely, that humans are not separate from, but rather interconnected with, the biosphere they inhabit. Through the novel’s representation of air as teeming with “stuff,” I will analyse the novel’s representation of posthuman subjectivity, considering its resonances with Stacy Alaimo’s notion of transcorporeality and Gaskell’s portrayals of Bessy and Margaret in *North and South*. I will begin this discussion by summarising the variety of posthuman subjectivities in the novel, starting with the prologue, “Sibyl’s Story.”

Sibyl describes herself as possessing “the gift of the Shadow, which allows [her] access to other people’s thoughts” (7). That is, she has telepathic abilities. However, she also notes that people with the Shadow are “born with the curse of the *Unbeknownst*, which meant that [they were] never able to dream [which in turn, means that they cannot access the Vurt]” (7). Sibyl continues: “[t]he state of *Unbeknowing* is a genetic lack; six per cent of the populace would always suffer from this inability” (7). In other words, the ability of the unbeknownst to read minds, and conversely, their inability to dream are written into their genetic code. In a series of infodumps throughout the novel, the range and origin of genetically mutated posthuman hybrids that populate *Pollen* are explained. Prior to the Vurt-story characters’ Vurt-pollen attack on humanity, six kinds of human and/or human-nonhuman hybrids exist in *Pollen’s* Manchester. The kinds of hybrids are referred to as follows: “Zombies, Dogs, Robos, Shadows, Vurt and Pure; this was the scale of worth” (31). “Zombies” are the male progeny of the coupling of humans with corpses, while Shadows are the female progeny of the same coupling (116). Dogs are the result of the interbreeding of humans and dogs, Robos of humans and robots, and Vurt of humans and Vurt-beings. Finally, Pure are entirely human. The Vurt-pollen attack introduces a seventh category, the human-plant / human-nonhuman-plant hybrid.

Like feminist literary critic Val Gough, I read *Pollen’s* taxonomy of species a continuation of Noon’s “adhere[nce] to ‘correct’ identity politics”—the inclusion and foregrounding of marginalised groups—despite its inversion of the “slogan ‘pure is

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27 In a short story appearing in *Pixel Juice* called “The Perfumed Machine,” Noon explains that robos are an invented species that are capable of reproducing in three ways. *Pixel Juice*, 181.
poor,” which was introduced in Vurt. Gough notes that in Pollen, “Pure is now highly valued, and too much rampant interbreeding is viewed as a threat to social stability.” However, while Pure sits atop the “species” hierarchy in Pollen, the only character identified as being purely human is represented as a corrupt policeman with a penchant for paedophilia. The purity of Pollen’s Chief Inspector Jacob Kracker—who has “no robo, no dog, no powers of the Shadow, no direct access to the Vurt” and who feels like the “last real person alive in this city [Manchester]”—is contaminated by his moral transgressions (106). Kracker protects Xcab and facilitates the Vurt-story characters’ Vurt-pollen attack in exchange for not only immunity from the Vurt-pollen attack, but also for sexual intercourse with the thirteen-year-old Persephone (227-32, 279). As his name suggests, the moral purity of Jakob Kracker is as thin and crumbly as the “certain brand of thin, dry wafer ... [after which he had been] named—by his parents” (27). In this way, Kracker’s construction is consistent with Nymphomation’s critique of racial “purity” through its caricature of white supremacy in the character of Nigel Zuze, and also its suspicion of institutionalised power through its representation of the corrupt Inspector Crawl. By contrast, the novel’s heroes—who restore ecological and social order to Manchester—are hybrids. Indeed, in consonance with Gough, I will discuss, in Section Four, how Sibyl’s hybridity underpins her ability to empathise with and advocate for the (radically) nonhuman other, and I will extend this analysis by discussing how her hybridity also underpins her ability to resist the dominant, oppressive and destructive socio-physical order ushered in by the Vurt-story characters’ invasion of “reality.” That is, as the hybrid English-Indian subjectivity of Nymphomation’s Jazir enables his human-blurbfly hybridity, which in turn, leads to the fragmentation of post-industrial capitalism and the possibility for ecosophical thinking, in Pollen, hybrid subjectivity is similarly associated with compassion for the other and the advent of positive and habitable socio-physical environments. Therefore, despite Pollen’s inversion of the slogan “pure is poor” through its taxonomy of species and the threat that interbreeding ostensibly poses to social stability, the novel’s endorsement of hybrid subjects as agents of positive social and environmental change,

29 Ibid., 124.
30 It should be noted that Pollen’s protagonist Sibyl is also a police officer, which suggests that Pollen offers a more complex representation of institutionalised power than Nymphomation. Additionally, it should be noted that several of Pollen’s antagonists are also hybrid—although they do tend to be characterised as being nearly Pure percentage-wise: for example, ninety-nine percent Vurt and one percent human (52). Nonetheless, this suggests that the novel offers a more nuanced representation of hybridity as well.
and its sullying of characters constructed as “pure,” reveals that the novel does not depart from “correct” identity politics.31

In *Pollen*, Fecundity 10 is revealed as the substance enabling the interbreeding of species in the novel’s Manchester. While *Pollen’s* climax establishes that Fecundity 10 came from Vurt—Barleycorn’s antidote to the sterility Demeter had cast over England—it is initially introduced as “the Authorities’ answer to the black air of Thanatos” (115). In the novel’s development, some exposition about Fecundity 10 is conveyed through a first person soliloquy delivered by Sibyl to (an absent) Belinda, a framing that connects the passage to *Pollen’s* second prologue:

> under the influence of Fecundity 10, ten thousand babies were conceived. Desire was overheated. The pure wanted more than purity, they wanted dogs, they wanted robos, they wanted Vurt-beings. And babies were made from this. Fecundity 10 had broken down the barriers between species. The Authorities banned the use of Fecundity 10. Of course, nobody listened. Fecundity 10 became a bootleg drug, liquid or feather, and already it was firmly at home in the gene pool. The Casanova of drugs, there were no limits to what you could love. Even the dead were desirable. (115)

Fecundity 10, plucked from Demeter’s Vurt-garden, becomes a chemical in *Pollen’s* reality that turns Mancunians into Casanovas32 and also allows for different species to reproduce hybrid offspring.

Transformed by Fecundity 10, the people that populate *Pollen’s* pages are constructed as postnatural and posthuman. Stacy Alaimo’s notion of trans-corporeality conceptualises the posthuman subject in a way that resonates with *Pollen’s* construction of its characters.33 Alaimo notes that:

> [t]he proletarian lung illustrates my conception of trans-corporeality, in that the human body is never a rigidly enclosed, protected entity, but is vulnerable to the substances and flows of environments, which may include industrial environments and their social/economic forces.34

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32 This is an idea developed and transformed in *Nymphomation* through the character of Georgie Horn. As discussed in Chapter One of this thesis, Georgie’s blank-blank avatar in the Hackle Maze (a precursor to Vurt) is a rampant Casanova of the system and his interactions with the program make him sexier in the novel’s reality also.
34 Ibid, 28.
The term “proletarian lung” refers to, for example, a disease of the lung like that of Bessy the miller worker in Gaskell’s *North and South*. Bessy’s representation also resonates with Alaimo’s notion of trans-corporeality, and provides productive similarities and contrasts through which to explore Pollen’s representation of trans-corporeality. In the case of Bessy’s proletarian lung, Gaskell’s representation foregrounds that her social and economic status, as a member of the working class, places her in an industrial environment—the cotton mill factory—in which the inseparability of her internal body from its exterior surroundings (that is, her trans-corporeality) becomes acutely obvious. As Bessy says, excessive cotton dust in the air inside the factory “winds round the lungs, and tightens them up … [causing] coughing and spitting blood.” The ease with which the cotton dust enters and ruins Bessy’s body shows the supposed boundary separating humans from their environment to be false.

Bessy’s proletarian lung is in stark contrast to what can be called Margaret’s middle-class or genteel lung. Margaret is the novel’s protagonist who tends to Bessy on her sickbed. The daughter of a pastor, she grew up in Helstone, a small country town in the south of England where the air is “delicious” and “smells of the freshest, purest fragrance.” Just as Bessy’s proletarian lung defines her character as a diseased invalid, the air that passes through Margaret’s genteel lung functions as a simile through which her identity is constructed: “I [Bessy] wonder if there are many folk like her [Margaret] down south? She’s like a breath of country air.” Whereas the working-class Bessy is crippled by the foul air of her industrial environment, the middle-class Margaret is enlivened (and enlivening) by the clean air of her country up-bringing. Nonetheless, despite their differing class backgrounds, both characters are affected by the air that surrounds them and which cannot be stopped from passing through them.

Reading *North and South* in the twenty-first century, through the trans-corporeality of Gaskell’s representation of Bessy and Margaret, the construction of proto-posthuman subjects can be seen. The construction of Bessy and Margaret draws attention to the fact that “[a]irborne microbial life [or inanimate particulate

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35 Deitering notes that the representation of the British factory in nineteenth-century literary realism, such as Gaskell’s *Mary Barton* and *North and South*, “called attention to labourers of the new industrial working class, de-humanised and often brutalised by the forces of industrialism.” *Waste Sites*, 6.
36 Gaskell, *North and South*, 146.
37 Ibid., 76.
38 Ibid., 187.
matter] is in constant interaction with human life not only in a pathogenic but also in a beneficial way.” In representing this empirical fact in the novel’s fictional world, Bessy’s and Margaret’s representations call into question the validity of conceptual separations between Humans and Nature.

In *Pollen*, Fecundity 10 functions analogously to the cotton “fluff” in Gaskell’s Milton. Like the cotton fluff, it is an airborne substance that infiltrates and transforms the physical bodies that encounter it. However, unlike the cotton “fluff,” Fecundity 10 is not a by-product of industrial capitalism; rather, it is the *product* of post-industrial capitalism. It is a chemical substance of Virtual (informational) origin emerging from a networked, information society, where information includes digital, discursive and narrative forms that have become thoroughly embedded in society and physical reality itself. For example, at one point in the novel, the reader is presented with the following image of the destination of a telephone connection:

> [t]he sounds of electric passage, and then … Somewhere out on the dark moors to the north of the city, a last telegraph pole. From that pole a single line falls, boot-legged into the field. The line creeps through the undergrowth, turning green as it travels, turning from wire to vegetable shoot. Now it is a runner through clay and peat, a plant-line. (76)

This telephone plant-line connects to John Barleycorn in the Vurt-realm, and in doing so provides an image of the interconnection between “nature” and information technology as being a seamless continuum.

Whereas Gaskell’s representation of nineteenth-century industrial society assigns Bessy and Margaret different “lung” qualities based upon the different air qualities in which their social/economic statuses place them, the chemical-informational substance that pollutes *Pollen*’s Manchester poisons everything equally: plant, animal and human, “zombie,” “dog” and “pure,” working-class and middle-class are all affected by this informational-chemical substance that does not make species or social distinctions as it infects and colonises physical matter. Additionally, unlike Margaret, who can retreat to the countryside to escape Milton’s “horrid air,” in *Pollen*’s England, everywhere is polluted: as the extracts from *Pollen* that open this

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41 Gaskell, *North and South*, 450.
chapter reveal, the negative effects of Fecundity 10 and the Vurt-story characters' attack are evident in both the novel's city and countryside. *Pollen* constructs a vision of reality made thoroughly postnatural by information networks and synthetic chemicals.

The description of the process by which Vurt-pollen infects its host in the novel's eco-catastrophe plotline—which has already been noted in reference to “John Barleycorn”—provides a striking representation of the relation between transcorporeality and posthuman subjectivity (and one that resonates with Bessy's explanation of cotton “fluff” on the lungs of workers). Philosopher Monika Bakke, who writes with an interest in considering the air as a multispecies habitat, notes that the “composition of the individual breath, although not visible to the naked eye, gives evidence that the human body is a transspecies environment. Our breath reveals a very specific composition of nonhumans living in our nasal passages and oral cavities.” In *Pollen*, the nasal passage is also the site where the transspecies environments of the characters’ bodies come into clear relief:

> [t]he pollen lodges in the human’s nostrils ... the human body registers this as an attack and therefore activates its immune system ... [trying] to expel the invader, through our nose and our eyes, with snot or tears. Hayfever is a defence mechanism. ... [However, the] body is no longer rejecting the pollen grain. It is treating it like a lover. ... The body is accepting the plant sperm. ... It is fusing with the human egg, as though it were a plant egg. ... We [scientific researchers] think it goes back to Fecundity 10. ... We think Casanova has stepped into the plant kingdom. (156-7)

*Pollen*’s description of the process by which the Vurt-pollen simulates hay fever calls upon scientific knowledge: plants *do* release pollen as part of the process of sexual reproduction, and hay fever *is* caused by pollen irritating a person's nasal cavity, which activates the immune response of the body.

*Pollen*’s detailed and vivid description of the empirical fact that hay fever is the “outcome of flowers trying to love one another” draws attention to the bioflora that is part of the transspecies environment of nasal cavities (156); like Bessy's description of the effect of cotton “fluff,” it highlights the porousness of bodies and the ways the novel’s posthumans (and the humans who are reading the novel) have always-already been trans-corporeal. That is, *Pollen*’s description makes the microbes that are invisible to the naked eye visible to readers’ imaginative eye. Additionally, the violent and ultimately deadly hay fever caused by the Vurt-pollen constructs the microbes as active agents by foregrounding the impact these “miniscule monsters” can have upon the

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42 Bakke, “Introduction: The Multispecies Use of Air.”
bodies they coexist with (155). In other words, in *Pollen's* networked and postnatural society, all bodies are represented as trans-corporeal spaces that are open to and penetrated by the information and chemicals that saturate their socio-physical environment.

**Section Two: Flower Map and Dodo Beetle**

The killer Vurt-pollen spores at the heart of *Pollen's* eco-catastrophe are transported from the Vurt into "reality" via a Vurt-map, which is used to help run the taxi service called Xcab. The map has been created by a character called Columbus, a Vurt-human hybrid who is in cahoots with the Vurt-story characters. According to *Pollen's* logic, once a number of factors fall into place, the Xcab Vurt-map can be converted into something called the Flower Map: and when this happens, "reality will follow the map," instead of the other way around (206), allowing the Vurt-story characters to control and determine what constitutes "reality."

Readers familiar with the work of Jorge Luis Borges are likely to recognise similarities between his short story, "On Exactitude in Science," and the scenario just outlined.43 "On Exactitude" tells the story of an empire in which the "Art of Cartography attained such Perfection" that a "Map of the Empire [was created] whose size was that of the Empire, and which coincided point for point with it."44 Moreover, readers familiar with the work of Jean Baudrillard are also likely to recognise similarities between his notion of the hyperreal and *Pollen's* Flower Map.45 Indeed, at one point in *Simulacra and Simulation*, Baudrillard describes the hyperreal as a situation when "the map precedes the territory [reality]"46—which is what *Pollen's* Flower Map threatens to make "real."

What *Pollen's* Flower Map, Borges' Map of the Empire and Baudrillard's hyperreal have in common is that they all take "the relationship between maps and territories in a[n] ... abstract way, as the relation between representation and world ... [exploring] the curious possibility of a simple substitution [of map for territory]."47 This, in turn, raises the philosophical possibility that there is no more substance to reality than the maps (models, stories and discourses) that humans use to represent it, 43 Noon has claimed that *Collected Fictions* by Jorge Luis Borges is “better than food” (Noon, “Top Ten”).
45 Baudrillard uses Borges’ "On Exactitude" to introduce his concept of hyperreality in *Simulacra and Simulations* (1).
an idea that calls into question the very notion of a physical reality that exists prior to representations of it. (Baudrillard’s development of this idea will be elaborated upon below.\textsuperscript{48})

In this section, I will argue that a critique of such strident philosophical constructivism, which Baudrillard’s hyperreality is often taken to support,\textsuperscript{49} can be found in \textit{Pollen}. Philosophical constructivism contends that:

“reality” … is not so much represented as or misrepresented by ideas or discourse as constituted as reality in and through discourse. In Jacques Derrida’s memorable terms, there is nothing outside of the text—and hence nothing outside of language itself. This philosophical constructivism is distinctly anti-realism in its rejection of the notion of an external reality independent of our knowledge and our conceptions of it.\textsuperscript{50}

Owing to the congruence between the description of \textit{Pollen’s} Flower Map and Baudrillard’s hyperreal in terms of maps and territory ("reality"), I will, in this discussion, use Baudrillard’s concept as exemplary of the philosophical constructivist position set out above. Through \textit{Pollen’s} representations, two ways to critique (or at least, two reasons to be cautious of) the notion of hyperreality—that models of reality, rather than physical reality, are the basic determinant of what is “real”—become evident. Firstly, by attaching an eco-catastrophe to a scenario that resonates with the concept of hyperreality, \textit{Pollen} suggests that mistaking models of reality for reality itself has serious ecological implications. Secondly, through a figure called the “dodo beetle”—a textual marker of ecological limits—the novel implies that physical reality has the power to constrain the extent to which models of reality can determine its shape. Through the representation of models of reality as causing eco-catastrophe (that is, as having material effects) on the one hand, and ecological limits as constraining how much these models can shape “reality” on the other, \textit{Pollen} emphasises a notion that is productive for ecosophical understandings—that the immaterial (models) and the physical (ecological limits) are in a relation of mutual influence.

\textsuperscript{50} Colin Hay, \textit{Political Analysis: A Critical Introduction} (Basingstoke: Palgrave, 2002), 199. As noted in the Introduction, it is such an understanding of philosophical constructivism that early ecocritics tended to rebuke.
Some explanation of the novel’s representation of the Vurt/real dichotomy and the hyperreal as a concept is needed to frame the relationship between Pollen and the notion of hyperreality. As already noted, the Vurt-pollen spores are able to mate with organic matter, which is what kills the Mancunians and turns the city’s flora monstrous. However, in terms of the Vurt-story characters’ colonising ambitions, the effect of the Vurt-pollen spores on organic matter is presented as the mechanism by which Pollen’s Flower Map will be able to precede reality. The Vurt-pollen spores’ reproduction with organic matter has the effect of virtualising it, that is, it makes the Vurtual indistinguishable from the “real.” Through the reproductive process, Vurt inserts information into physical matter by combining with its DNA, which dissolves the boundary between the two categories. This process of virtualising Manchester’s organic matter—conflating the “real” and the Vurtual—is what will allow the Flower Map to come online:

[the Xcab Vurt-map is] the door through which the fever travels. ... The hayfever [the reproduction of Vurt with organic matter] is a new map [the Flower Map, and] each pollen grain is a new road. If this map succeeds, there will be no freedom in the city. The city will change to suit the map. (215)

Dissolving the boundary between the “real” and the Vurtual enables the Vurt-story characters to control reality through the Flower Map, but it is a process that also entails death and destruction for Manchester and its citizens. Ostensibly, this seems to be another instance of Pollen constructing a dichotomy (Vurt/real) that it subsequently problematises, which, as I argue above, highlights the interconnectedness of the immaterial and the physical by emphasising their continuities and diminishing their differences. However, in this scenario, the Vurt-pollen spores do not “simply” problematise the distinction between the Vurt and the “real”; they are presented as erasing it. The Vurt-pollen spores, therefore, have the effect of replacing the category of the “real” altogether, of making the “real” (conceptually at least) disappear, which is an order of boundary transgression that moves beyond problematisation, as it entertains the fantasy that the immaterial Vurt does not depend upon a physical reality to instantiate it.51

Turning to the hyperreal, Baudrillard describes hyperreality as “the generation by models of a real without origin or reality.”52 For example, “when models of an ideal home, an ideal relationship, or an ideal physical body as portrayed in various media

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51 Hayles, How We Became Posthuman, 13.
52 Baudrillard, Simulacra and Simulation, 1.
become determinant of a ‘real’ home, relationship, or body, the boundary between hyperreality and everyday life blurs and eventually disappears." For Baudrillard, the dissolution of the boundary between the "real" and its model results in the "map preceding the territory." What is considered to be “real” and “true” has its origin in other representations, rather than the Real itself; however, this representation is nonetheless (mis)taken and accepted as an accurate reflection of Reality, meaning that representation, rather than Reality, holds sway over what “reality” is considered to be.

In terms of my reading of Pollen’s eco-catastrophe as a means of engaging with an ecosophical reading practice, two points about the resonance between the Pollen’s fictional scenario and Baudrillard’s hyperreality are pertinent. The first point is straightforward and resides in the fact that the hyperreal rests upon the conflation of the “real” with its representation. As my description of Pollen highlights, the method by which the novel’s Vurt-story characters invade “reality” shares a key similarity with this logic. Therefore, by association, Pollen’s alignment of such dissolution with ecocatastrophe implies a critique of the hyperreal. While philosophically the “real” can “disappear” when it becomes conflated with representation, to take this idea as a "truth" about physical reality leads to dire ecological consequences for organic life.

The second, more complicated point is tied to the idea that in hyperreality “[t]hose who control the ‘reality’-generating models are those who control the world.” In Pollen, after the Flower Map is in place, it is the Vurt-story characters who will “control the world.” Their visions of what the Flower Map (hyperreal) world will be like are characterised as idyllic (as will be discussed below). However, in order for their idealised visions to exist in “reality,” they are constructed as having to eradicate the aspects of physical reality that do not fit their models. Verena Andermatt Conley, in her consideration of the Baudrillard’s later writings as “ecological disparagements,” suggests that the hyperreal is itself a “figment of science fiction, a utopia of forces in perfectly efficient circulation [that] does not begin with real facts or detail.” Conley continues by arguing that:

[i]n this sanitized and aseptic world [the hyperreal], technology concerns norms that fix or produce a flawless environment. ... [However,] the smooth

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54 Baudrillard, Simulacra and Simulation, 1.
55 For a detailed critique of the social and ecological realities that Baudrillard’s concept of hyperreality elides see Chapter Two in Conley, Ecopolitics.
56 Ibid., 35.
57 Ibid., 34–8.
functioning of a system that captivates and seduces him [Baudrillard] has been jolted by the return of nature, in the form of floods, droughts, and by local insurrections that count thousands of dead, not only in Africa and Asia but also in Europe.58

My argument is that Pollen’s representation of physical reality, as needing to be repressed in order for the Flower Map to “work,” functions as a fictional version of the critique of the hyperreal that Conley finds in the actual world. That is, the hyperreal inadequately accounts for ecological realities that refuse to disappear in the face of the closed sign system model of reality that the hyperreal describes.

Pollen presents two visions of Manchester under the dominion of the Flower Map. The first is proposed by Columbus, who imagines a future of pastoral magnificence. Belinda, and the reader, witness Columbus’ idealised “reality” future, in a scene that takes place in the Vurt realm, as Belinda goes to meet with Columbus:

endless stretching fields where waves of wheat and corn form billows of breath. Petals and birds sparkle and sing from hedgerows and bowers. The sun glistens on each leaf and flower until the world seems made out of segments of colour. In the distance children are playing around homesteads and cottages; a pig squeals in delight at being chased. (203-4)

When Belinda and Columbus meet, his dialogue with Belinda highlights that absent from this “projection of reality once the Vurt has taken over the governance” are “crime or pollution … [and] welfare or poverty” (205). However, Belinda interrupts the tranquillity of the scene when she inquires as to the whereabouts of the adults and accuses Columbus of killing her lover Coyote (205-6). Belinda’s questions emphasise the troubling foundations upon which Columbus’ version of reality relies: namely, the exclusion of adults and the denial of the murders that will enable it to come to pass. As Belinda's critical comments themselves disrupt Columbus’ bucolic vision, he attempts to control and contain her too by tightly “bind[ing] her hands to her body [with] … vines” (207). Therefore, Pollen suggests that Columbus’ version of reality can only exist as a “reality” through the utter and violent exclusion of that which does not conform to his idealised model.

The second vision is proposed by Barleycorn and includes much more diversity than Columbus’, but it nonetheless also rests upon an untenable foundation—the genocide of dodos (a nickname for characters like Sibyl who are possessed of the

58 Baudrillard, Simulacra and Simulation, 34.
Shadow). As with the scene between Columbus and Belinda, the reader encounters Barleycorn’s idealised “reality” as Sibyl passes through a Vurtual prototype of it:

the jungle encroached all over the streets, making a dense canopy for the deserted shops and houses. Here and there a few humans could be seen, a few dogs and robos, but mostly the tree-roads were occupied by characters from fiction. It was as though Manchester had transformed itself into a tropical paradise in which the usual exotic birds and animals had been replaced by figments from the human mind. (327)

However, in a dialogue between Barleycorn and Sibyl, he claims that he “would have to kill you [dodos] all to make [this] vision complete” (328). Barleycorn does report to Sibyl that eradicating characters possessed of the Shadow was not his desire, but a necessary evil: he had “wanted us to work together. The dream and the real. As you [Sibyl] can witness all around you now, a new world, a good and fruitful world is to be made out of the joining. This is my vision” (328). While Barleycorn’s vision is of a reality governed by harmonious social relations and lush green city environments, like Columbus’ idealised model, Barleycorn’s can only exist if non-conformist aspects of socio-physical reality are removed. Both visions attempt to overcome the discrepancy between representation and physical reality, not by modifying the vision to accommodate the complexity of socio-physical reality, but by erasing the aspects of reality that fail to fit the vision. This suggests that the Vurt-story characters’ control over “reality,” even after the ascendancy of the Flower Map, is not total—physical reality will continue to “interfere” with the idealised models of reality they have constructed, despite its seeming disappearance in the hyperreal.

Pollen’s resonance with the hyperreal and its association of the concept with eco-catastrophe and violent repression of the physical brings into clear relief the argument Wheeler and Dunkerley make, which I noted in the Introduction.59 Understanding “reality” as “only” constructed in discourse leaves physical reality vulnerable to the values and practices perpetuated by the social group with the most discursive power.60 In the case of the historical late-twentieth and early-twenty first centuries, where post-industrial capitalism and neoliberalism are hegemonic discourses, those who espouse corporate interests tend to wield the most discursive

60 There are many ways to read hyperreality; it is arguable that Baudrillard’s personal politics are to be found within the concept, as does Conley when she writes “Baudrillard ... rejoins those techno-liberals with dubious political leanings who advocate a laissez-faire approach to the environment. His politics share much, it seems, with the current attempt to loosen environmental control, junk affirmative actions, and be done with the advancement of minorities in areas where policy is formed.” Conley, Ecopolitics, 37.
power. Therefore, the narrative that dominates how subjects understand themselves, as well as their relation to society and the environment, will be directed in such a way that profit is put before place and people, the economy before the ecosystem—a situation that benefits the former of each pairing and disadvantages the latter. Pollen does not engage in a direct critique of neoliberalism and post-industrial capitalism, as does Nymphomation. Rather, as I will discuss in detail in Section Three, Pollen’s representations are more directly critical of the discourse of technological efficiency, a value system that is shown to undermine the Mancunians’ critical agency, making them susceptible to the machinations of powerful technocrats and leaving them defenceless in the face of the environmental destruction caused by their decisions. Nonetheless, when Pollen’s representation of hyperreality is understood as a metaphor for the ecological consequences of over-emphasising the notion that reality is constructed in discourse, resonances between the socio-physical world confronting the novel’s readers in the late-twentieth and early twenty-first centuries and the novel’s depiction of the impact of hyperreality on the physical environment become apparent.

*Dodo Beetle: Pollen’s Physical Reality Shaping Discursive Reality*

In this section I will discuss the figure of the “dodo beetle,” which I will argue acts as a textual marker of ecological limits in the novel. The dodo beetle is constructed as the thing that stops the Vurt-story characters from being able to bring the Flower Map online, and, therefore, thwarts the ability of their models of reality to be the sole determinants of what is “real.” It is through the dodo beetle, then, that the novel foregrounds physical reality as the factor that prevents the full-blown advent of the hyperreal. As in Nymphomation, where the Lucky Bleeders’ access to a pre-symbolic reality curtails the dominance of AnnoDomino and the environmentally detrimental discourse of post-industrial capitalism it engenders (as discussed in Section One of Chapter One, under the heading “Physical Reality Shaping Discursive Reality”), in Pollen, the dodo beetle’s ability to exist in a space “outside” of the Vurt stops the Vurt-story characters from dominating, controlling and destroying Manchester’s socio-physical reality. Physical reality, through the figure of the dodo beetle, is thus represented as limiting the extent to which models of reality can shape it; in turn, this foregrounds the interconnectedness of the physical and the immaterial.

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Pollen constructs the dodo beetle as a marker of ecological limits in two ways. (This trait of the dodo beetle is foreshadowed in the novel’s second prologue, “Sibyl’s Story” and its significance is revealed to readers at the novel’s climax; therefore, the textual references in this section jump between the beginning and the end of the novel.) Firstly, the dodo beetle is a manifestation of the “genetic lack” that prevents dodos from accessing the Vurt. The dodo beetle is introduced as having this characteristic via Sibyl’s first person perspective:

I would envision the Dodo part of my body as a river of dark, sterile liquid in my veins. At other times, a black, hungry beetle seemed to be alive in my stomach, gorging himself on my just-born dreams. (7)

In other words, the dodo beetle is an aspect of Sibyl that exists prior to and in spite of her interactions with culture. Interestingly, while Sibyl envisions her inability to dream as taking the shape of either a “beetle,” “worm,” or “insect” (7, 328), in her prologue she notes that it is the “ones who could dream” that dubbed her kind “dodos,” after “the flightless birds” (7). In addition to being flightless, the dodo is also a well-known symbol of extinction. Within two-hundred years of the first human sightings of the dodo, the species was hunted to extinction. In terms of the novel’s plot, the moniker dodo portends Barleycorn’s attempted genocide of the dodo characters: referring to Sibyl’s kind as dodos, thereby earmarks them for extinction like their eponymous forebears. As a loaded signifier, the term “dodo” draws readers’ attention to the extra-discursive reality that exists beyond the novel (a physical reality in which species such as the dodo have become extinct because of humans).

Secondly, the dodo beetle is constructed as a marker of ecological limits because it can exist beyond the reach of the Vurt-story creatures in the Vurt-realm. Some additional plot elements need to be explained to unpack the significance of this point. As already mentioned, because Sibyl is a dodo she cannot dream, meaning she cannot enter the Vurt. However, as Barleycorn-Hades occupies the Vurt-realm of the “underworld,” which according to Greek mythology is the kingdom of the dead, Sibyl can travel there because her genealogy makes her “quite au fait with death … [her] mother, for instance. That putrid corpse … [has resulted in the] Shadow inside [Sibyl], which is the soft kiss of death” (323). To travel to Barleycorn’s Vurt-underworld, Sibyl must orchestrate the death of her physical body. She does this by inserting her shadow into the body of her daughter Belinda, who has suicided; this brings her daughter back to life (274). Sibyl then dispenses with her physical body by drinking a poisonous

alcohol called Boomer and jumping from the balcony of the twenty-first floor of a hotel (282-3). In other words, Sibyl attaches her shadow—which is constructed through this sequence of events as the seat of her identity—to Belinda’s dead body, wherein both Sibyl’s and Belinda’s identities proceed to coexist. Because both Sibyl and Belinda have both, at some point, partially died, Barleycorn permits the entry of Sibyl-Belinda into his Vurt-realm. (I will return to the significance of the migration of Sibyl’s identity into her daughter’s body for the novel’s engagement with the “trope of transcendence” and mind-body dualism in the next subsection.)

Once inside Barleycorn’s Vurt-underworld realm, Sibyl discovers that Barleycorn knows her “every little thought, every pathetic, human emotion that travels through [her] skull” (315). That is, inside the constructed reality of the Vurt-story world, distinctions between interior and exterior cease to exist, leaving nothing but a depthless surface “reality” of representation. Without access to a space beyond Barleycorn’s knowledge—that is, outside of his discursively constructed “reality”—Sibyl’s political project to “stop the fever” is immobilised (316). In this context, Barleycorn has all the knowledge and therefore all the discursive power and control; by contrast, Sibyl has nothing but “the frustration of being totally controlled by that which you foolishly believed you could one day destroy,” which in this case is Barleycorn’s dominant discourse (324).

Sibyl’s dodo beetle is the way the novel imagines Sibyl as reclaiming some agency in this situation, through its representation as a space that exists beyond the reach of Barleycorn’s knowledge, and therefore, outside of his dominant discourse. The dodo beetle is constructed as space that exists beyond the discursive reach of the Vurt. When Sibyl is in the Vurt, Barleycorn takes her into his idealised vision of a post-pollen attack Manchester. The novel thus posits a dream within a dream, a mise-en-abyme within a mise-en-abyme: Manchester is the novel’s reality frame, the Vurt-underworld is the dream-world within the reality frame, and Barleycorn’s idealised vision of the future is the dream within the dream-world frame. Pollen invites readers to consider the ontological crisis such layering produces when Sibyl muses: “[w]hat was the nature of this world? Was I moving through Barleycorn’s mind, visiting through the Shadow the dream of a dream? Can a dream really dream?” (327). However, the radical scepticism about the ontological status of reality that these questions raise is immediately challenged by the appearance of Sibyl’s dodo beetle. After asking these questions, Sibyl moves onto examining her avatar wherein she finds:

in the pit of [her] stomach ... a glistening black beetle of carefully folded wings, waving legs and antennae, crunching jaws: the Dodo insect. The dream-eater. That presence within that stopped the dream from entering [her] system.
Never before had [she] seen the Dodo in [her] flesh, and [she] felt that [she] could almost reach inside [herself] to pluck out that offending creature. (327)

After being shown a “future-flower” by Barleycorn “that was being eaten away at the roots by a viral worm of great appetite ... [called] Black Dodo,” Sibyl:

realised then that the Dodo insect inside [her] stomach—once upon a time, my curse—could now be my saviour. ... I leached a tiny portion of my shadow into my internal Dodo beetle. There a small part of my soul rested, hopefully cut off from Barleycorn’s province. ... in the Shadow and the Dodo I now lived. (328)

Sibyl’s “dodo-barrier” does hold as a “place ... that Barleycorn could never reach” (238-9).

Pollen constructs the dodo beetle as an ecological limit by using it as the basis of Sibyl’s eventual triumph over Barleycorn, which leads to the restoration of Manchester’s socio-physical environment. The dodo beetle is involved in this “victory” because it “eats” Vurt-dreams, causing “moments of blindness in the stories” (328). The propensity of the dodo beetle to eat holes in Barleycorn’s (and Columbus’) idealised vision is constructed as the means by which Vurt’s encroachment on physical reality is resisted. If Vurt is to be successful at making itself indistinguishable from physical reality, it must do so by seeming to be a flawless, timeless reflection of the way the characters experience reality. It must be mistaken for “truth” in the same way that ideologies are. Ruptures and exceptions to this veneer of “reality” and “truth,” such as the holes and moments of blindness created by the dodo insects, disrupt the coherence of the Vurt-hyperreality, revealing its constructedness. Therefore, the ruptures caused by the dodo beetle—which are representative of pre-symbolic genetics and can exist in a space outside of the discursively-constructed Vurt—can be read as instances of physical reality that do not seamlessly fit the Vurt-story characters’ idealised models of reality. Dodo beetles point to the “holes” in the notion that reality is “only” a discursive construction.

Sibyl’s dodo beetle is constructed as policing and maintaining the distinction between physical reality and Virtuality in the novel by marking the boundary between a socially constructed reality that the Vurt helps to shape and transform, and an immutable physical reality that exists beyond the reach of the Vurt. Furthermore, Sibyl is represented as strategically using her discovery of the dodo beetle as a space beyond Barleycorn’s discursive power to compel him to retract the Vurt-pollen from reality. Sibyl forces the dodo insect into Persephone’s mouth, an act that will kill Persephone by “undream[ing]” her story (334). Barleycorn submits to Sibyl’s demand to stop the Vurt-pollen attack so that he can save Persephone from this fate. Sibyl’s recourse to the
dodo insect’s existence outside of the Vurt and her use of it to stop the Vurt-pollen attack literalises the characters’ dependence on a physical reality that is external to and independent of the immaterial Vurt-reality for their continued survival.

Reading Pollen’s construction of the existence of a physical reality in its fictional world, as well as the importance the novel places on acknowledging this physical reality for continued existence of the novel’s posthuman characters, is not to suggest that the novel endorses a conservative social politics (a politics in which power hierarchies are shown to be manifestations of universal “natural” laws grounded in biology). I argue that the novel circumvents such politics through its representation of Sibyl as a biologically underdetermined character. In What is Nature?, philosopher Kate Soper, writing with an interest in the intersection between feminism and “nature,” proposes the notion of biological underdetermination in order to develop a nuanced understanding of the relation between biological sex/racial phenotypes and socially constructed gender and racial identities. Soper argues that all humans are biologically underdetermined because, while we have organs and physiology that endow us with particular sexual organs or skin pigmentations, we also have an awareness of our sexuality and race that is expressed through language, social norms, and conventions of sexual and racial identity. We are, therefore, subject to two kinds of construction. Firstly, we are constructed from biological materials—for example, DNA, hormones, and organic cellular material—that exist prior to social interventions; and secondly, we are culturally constructed following norms of, for example, class, race and gender, which institute social roles that can be resisted. Soper is careful to distinguish between these two senses of construction to highlight the importance of recognising the physical (body) as an entity that is necessarily prior to and reciprocally involved in discursive constructions of reality.

Sibyl’s avatar demonstrates these two senses of construction, which highlights the novel’s insistence on the centrality of a physical reality that informs and places limits upon discursive constructions of reality. As noted above, Sibyl’s avatar becomes apparent when she is inside Barleycorn’s idealised vision of a post-Vurt-pollen attack Manchester. In this Vurtual reality, characters and objects are not constrained by the limitations of biology or the physics of material reality; rather, their appearance and movement are constrained only by the limits of imagination. For example, Barleycorn says to Sibyl when they first meet in his Vurt-underworld realm:

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64 Ibid., 125.
65 Ibid.
[Barleycorn:] I am whatever you want me to be. ... To Belinda, [I’m] a good lover.

... [Sibyl:] He really was very beautiful. Tight, dark skin revealing perfect bones. ... He had the look of a predator, but I knew this was only Belinda’s projection. (315, 317)

Sibyl’s avatar, however, which is constructed for her by Barleycorn, does not exploit the imaginative or transgressive possibilities of Vurt. Her avatar instead mirrors the markers of her actual biological sex very closely: “I [Sibyl] took the chance to examine this body of Smoke Barleycorn had fashioned for me. I was a random map of shadows formed into grey shapes: hips and breasts, neckline and stomach worlds” (327). Of all the shapes the random map of smoke could possibly have formed, Barleycorn is represented as foremostly selecting the breasts and hips of a “younger woman’s body ... ripe and lovely in her curves” (325). Breasts and hips mark the avatar as biologically female, but significantly they are also typically associated with the feminine social roles of sexual object and mother. Therefore, Barleycorn’s construction of Sibyl’s avatar is informed by both the physical reality of her biological sex and also the cultural discourses of heterosexuality and patriarchy.

Significantly, as noted above, Sibyl’s dodo insect is also part of her avatar. As a genetic lack, Sibyl’s dodo-ness is as much a part of her biological construction as her breasts and hips. However, Sibyl’s dodo-ness is not outwardly apparent in the way her breasts and hips appear as physical manifestations of her biological sex. Rather, it is Sibyl herself who chooses to express her experience of dodo-ness in the form of an insect: she notes that “[o]ften, in my youth, I would envision the Dodo ... [as a] black, hungry beetle” (7). Despite Barleycorn fearing and hating Sibyl’s dodo-ness (328), as with her breasts and hips he cannot construct an image of her without it. Therefore, even in the Vurt, where Sibyl’s body is literally brought into being through Barleycorn’s imagination, Pollen represents her biology as imposing limitations upon—although not entirely determining—the extent to which she can be transformed. Considering the dual ways in which Sibyl is constructed—biologically and socially—highlights how Pollen represents physical reality and immaterial, discursively constructed reality as being interconnected in a way that frames their interrelatedness as not being politically disabling. In summary, this reading of the novel highlights the importance Pollen places on accounting for physical reality in discursive models of reality by showing that acknowledging the ecological limits physical reality places upon
discursive (immaterial) constructions of reality is central to mitigating the
cocatastrophe the novel represents.

**Trope of Transcendence**

Before moving further, I wish to return to the representation of Sibyl in her
suicide sequence—the means by which she was able to gain entry to Vurt—in order to
consider it in terms of a point raised in the thesis’ Introduction. Namely, I will examine
the migration of Sibyl’s shadow into Belinda’s body in terms of my argument that
Noon’s Vurt resists the interrelated notions of the “trope of transcendence” and
mind/body dualism attached to William Gibson’s literary version of cyberspace. As
noted in the Introduction, these notions have been put forth to reinforce the ideas that,
firstly, a subject’s mind can be detached from their body, secondly, “mind” can exist
independently of the body and of materiality more generally, and thirdly, “mind” is
superior to the matter from which it is imagined as being released.66 Such ideas are
supportive of a belief that humans are separate from, superior to and independent of
the physical environments in which they exist, which is an idea that ecosophical
thinking challenges and seeks to overcome. Here I will argue that, while the separation
of Sibyl’s shadow from her body engages with the notion that “mind” can be separated
from body, the way the novel represents Sibyl’s migration does not celebrate
transcendence as a desirable state. Therefore, the representation of the migration of
Sibyl’s shadow into Belinda’s body transforms the mind/body dualism associated with
cyberspace in ways that are productive for ecosophical thinking.

I will begin this argument by considering how Sibyl’s ability to access the Vurt
is constructed as predicated upon the disappearance of her physical body, which
reinforces the notion that “mind” can be separated from body. When Sibyl’s shadow-
identity and body are separated, her body is shown to be changed, but her shadow-
identity remains the same. After the departure of her shadow-identity, Sibyl’s body is
described as having become “emptied,” “drained,” “hollow flesh,” a “cold body,” “hard
and ritualised … lacking any kind of emotional response to the sensual input” (274). By
contrast, after entering Belinda’s body, Sibyl’s shadow-identity is described in terms
that suggest her sense of self and prior knowledge have made the journey intact and

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66 For example, see Morse, “What Do Cyborgs Eat?: Oral Logic in an Information Age”; Nixon,
“Cyberpunk: Preparing the Ground for Revolution or Keeping the Boys Satisfied?”; Stockton,
“The Self Regained: Cyberpunk’s Retreat to the Imperium and the Responses of Feminism”; Kendrick,
“Cyberspace and the Technological Real”; Dery, Chapter Six “Cyborging the Body
Politic: Obsolete Bodies and Posthuman Beings,” in Escape Velocity: Cybertulture and the End of
the Century; Springer, Chapter One “Deleting the Body” in Electronic Eros: Bodies and Desire in
the Postindustrial Age.
unchanged: “I’m [Sibyl] inside you, daughter [Belinda]”; “I [Sibyl] gave in return [to Belinda] all of my own secrets” (275). This one-sided transformation—where Sibyl’s body is changed in the absence of her shadow, but where her shadow is unchanged by inhabiting a different body—constructs Sibyl’s body as inconsequential to her selfhood: her shadow animates the dead matter of her physical body, which is itself an inert support system that is interchangeable. In this way, Sibyl’s shadow-identity is represented as only incidentally related to her body, which downplays her body as inseparable from and integral to the shape of her identity.

Nonetheless, despite the ability of Sibyl’s shadow and body to be separated and despite the immutability of her shadow compared to the diminishment of her body after their separation, the flight of Sibyl’s shadow from her body is represented as undesirable. It does not demonstrate, as Suvin comments about Gibson’s work, “a yearning to get out of the dinginess and filth of everyday life.” Instead, the separation of Sibyl’s shadow from her body is constructed as a necessary evil, an act of desperation born out of love for another person. The sequence where Sibyl “sent [her] own Shadow into [Belinda]” is written from Sibyl’s first-person perspective: she describes Belinda’s death and her subsequent actions as “the worst moment of [her] story” (273), and characterises her actions as “giving you [Belinda] everything” (276).

In other words, Sibyl is constructed as seeing the relinquishment of her body as a sacrifice she would rather not have had to make. Framing the separation of Sibyl’s shadow from her body as a sacrifice resists being understood as an endorsement of disembodiment or as the desire to flee the messiness of physical reality. Indeed, the passage foregrounds flesh—Sibyl inserts her shadow into “[a]ll of her [Belinda] … the veins, the heart, the brain, the skin (273). Sibyl’s shadow is not represented as disembodied, but rather as differently-bodied, which suggests the interdependence of (immaterial) shadow and (physical) body—Sibyl’s shadow always resides in some kind of physical body, it does not just exist in the ether, so to speak. Even though Pollen represents “mind” as an entity that is separable from the body, it nevertheless does not de-emphasise the body as a necessary condition for the existence of “mind” or suggest that disembodiment is desirable. Therefore, the migration of Sibyl’s shadow opens up an ecosophical way to think about the relation between “mind” and body by emphasising their interdependence.

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67 Hayles, How We Became Posthuman, 13.
68 Suvin, Defined by a Hollow, 144.
Section Three: Black Cab and Xcabs

The hyperreal Vurt-pollen attack that threatens Manchester’s ecosystem is able to take hold in the first place because of Xcab. This company, headed by Columbus, runs a taxi fleet and maintains a Vurt-map of the city. As noted above, Xcab’s map is the Vurtual infrastructure that allows the Vurt-pollen to travel around Manchester, infecting organic species and making physical reality indistinguishable from Vurtality as it does so. An image of the Xcab map functioning as a conduit for the Vurt-pollen is presented to the reader in an aerial view of Manchester, revealing that the “new [Vurt-]pollen isn’t governed by the wind … [instead] the clouds of golden pollen were following precise lines, each line corresponding to a Mancunian road. Here was the new map [Flower map] unfolding itself” (215). In other words, in terms of the novel’s plot, Xcab is directly involved in the eco-catastrophe that makes Manchester uninhabitable and kills its citizens.

In this section, rather than elaborate how Xcab is connected to the eco-catastrophe via Pollen’s plot (which has already been suggested in Section Two above), I will instead focus upon how the novel constructs Xcab’s use of Vurt-technology as producing the cultural conditions that have left the novel’s Mancunians vulnerable to and unable to defend themselves against the eco-catastrophe that Xcab helps bring about. I will focus upon this because Pollen’s representation of Xcab is a fruitful way to engage with the descriptive arm of ecosophy; that is, it allows me to consider the way the novel represents cultural factors as impeding the characters’ ability to deal with the environmental challenges that face them. I will argue that in Pollen, Xcab has a similar role to AnnoDomino in Nymphomation, insofar as both represent corporate monopolies that encourage Mancunians to (passively) adopt a particular way of acting towards and relating to their socio-physical environment—one that benefits the corporation more than it does the Mancunians and the environment that sustains them. In the case of AnnoDomino, the company increases its profits by perpetuating the value of wealth and engendering competitive individualism as an expression of subjectivity. This downplays and distracts Nymphomation’s Mancunians from other sites of value, such as caring for human and nonhuman others, and is shown to make them complicit in the despoilment of the city’s socio-physical environment. However, in the case of Pollen, Xcab’s pursuit of profit is not foregrounded as the company’s primary objective. Rather, Columbus is represented as pursuing power for the sake of obtaining total control over the city in order to allow him to realise his idealised vision. Xcab is represented as gaining and maintaining its power because the company’s Vurt-map (but also Vurt-technology more generally) are insinuated in all aspects of Mancunian society.
My reading of *Pollen* illuminates how the Mancunians are represented as having passively permitted Xcab and Vurt-technology to become so pervasive. The Mancunians are portrayed as having willingly and uncritically adopted Xcab’s services because its advanced technology promises convenience and security, which, as will be argued below, are characteristic of the discourse of technological efficiency. However, *Pollen* foregrounds that, by adopting the instantaneous, safe, easy and ubiquitous service offered by Xcab’s taxi and mapping service—that is, by failing to be critical of the values that attend the discourse of technological efficiency—the Mancunians unwittingly give Columbus tremendous powers of surveillance and access to government knowledge, which he uses to bring about the novel’s eco-catastrophe.

*Pollen’s* imaginative scenario is comparable to a situation that has become apparent in the early-twentieth century. That is, in exchange for the “free” use of computer applications, such as email services, users agree to allow the application’s provider to do the following: firstly, collect data generated by the user, such as sites the user searches for and visits; and secondly, sell this information to other organisations, such as marketing companies and intelligence agencies. As journalist Michael del Castillo notes, much of the information Google openly admits to collecting in its privacy policy is the “same information Edward Snowden leaked that Google was sharing with the National Security Agency.” In the real world scenario, for the convenience of accessing “free” applications, users of Google’s services give away the data they produce, which increases the power of the organisations who buy the data-knowledge from Google. From an ecological perspective, the use of this data to develop ever more targeted and sophisticated advertising campaigns for the sale of products means the perpetuation of the cycle of mass-production, mass-consumption and mass-waste, a cycle that contributes to the degradation of the planet’s ecosystem.

As the blurbflies’ discourse of post-industrial capitalism cajoled *Nymphomation’s* Mancunians, the discourse of technological efficiency—the promise of instantaneous, safe, easy and ubiquitous service—enticed and entraps *Pollen’s* Mancunians, leading them into an eco-catastrophe and leaving them helpless to defend themselves against it. The aforementioned list of qualities that are valued within the discourse of technological efficiency is drawn from the work of philosopher of technology Albert Borgmann, who in his discussion of the “device paradigm” argues that technology:


promises to bring the forces of nature and culture under control, to liberate us from misery and toil, and to enrich our lives. ... [Moreover,] notions of liberation and enrichment are joined in that of availability. Goods that are available to us enrich our lives and, if they are technologically available, they do so without imposing burdens on us. Something is available in this sense if it has been rendered instantaneous, ubiquitous, safe, and easy.  

As will be discussed below, insofar as human “toil” and “burden” are associated with “waste”—as in wasted time and effort—and given that the purpose of being efficient is to “eliminate waste,” I define the qualities that are represented as being valued in Pollen’s depiction of the discourse of technological efficiency as being synonymous with the qualities Borgmann uses to describe “availability.” I will develop these points, firstly, by establishing how Pollen sets up Xcab as engendering the discourse of technological efficiency in such a way as to demonise this discourse. This construction and critique emerges through the novel’s juxtaposition of Xcab with an independent black-cab driver called Coyote. Secondly, I will discuss how the novel represents Xcab’s and Vurt’s technology as having profound impacts upon Mancunian society and the ability of the Mancunians to take collective action in the face of eco-catastrophe.

Xcab has a near monopoly over Manchester’s taxi business in Pollen. Nonetheless, the novel assigns its competition—“Coyote ... the best black-cab driver of all time” (8)—a much more prominent position in the narrative. After the novel’s epilogue and two prologues, the diegesis begins by following Coyote on one of his cab adventures (8-27). The reader meets Coyote in Limbo, the name of the toxic wasteland that lies beyond the walled perimeter of central Manchester, while he is waiting for a fare, which turns out to be Persephone. The sequence follows Coyote as he smuggles Persephone into Manchester; however, Coyote is not a knowing accomplice in Columbus’, Persephone’s and Barleycorn’s Vurt-pollen attack: he is completely ignorant of their plan. This sequence constructs Coyote as a hero, depicting him deftly fending off attackers—at one point “zombies” try to invade his cab—and out manoeuvring the police in a car chase around Manchester’s suburbs.

73 Indeed, the phonetic similarity between “scab”—a person who works while fellow workers are on strike—and Xcab’s appellation belies the Company’s unsympathetic portrayal throughout the novel.
This opening sequence is told using a selective omniscient narrator that privileges Coyote’s perspective: that is, the reader has access to Coyote’s thoughts and feelings, and the fictional world is framed from his point of view. According Coyote such perspectival power is consistent with Noon’s privileging of the marginalised other: Coyote is figuratively and literally an underdog. Figuratively, he is an underdog because his “old-fashioned” taxi service struggles to compete with Xcab’s flashy taxi fleet (9); and, he is literally an underdog in that he is a “half-and-half creature,” half Dalmatian and half human (10). Pollen enumerates the differences between the black-cab and Xcab from Coyote’s heroic underdog perspective. What emerges from this dichotomous—black-cab/Xcab—structuring technique is the following. Firstly, Xcab is represented as technologically efficient, but the worse service for being so. Secondly, the technological efficiency of Columbus’ Xcabs is constructed as engendering a relation between (post)humans, technology and the environment that is substantially different from the relations engendered by Coyote’s black-cab taxi, and Xcab is constructed as the worse for doing so.

**Discourse of Technological Efficiency and Eco-Catastrophe**

Before elaborating Pollen’s representation of Xcab in detail, it is important to explain in what sense the negative portrayal of technological efficiency corresponds to the ecological interests of this thesis. By the beginning of the early twentieth century:

the ideal of efficiency had permeated almost every aspect of national life [in Britain.] … Efficiency came in many forms—social efficiency, physical efficiency, industrial efficiency, domestic efficiency, mental efficiency, personal efficiency, and so on—but in all its manifestations, efficiency was designed first and foremost to eliminate waste.74

In the area of industrial efficiency, this is a double-edged sword for the physical environment. On the one hand, an emphasis upon eliminating waste in extraction and manufacturing processes can lead to the development of “cleaner” technologies that use less primary materials for the same outcome and that produce fewer environmentally harmful by-products during production. On the other hand, an emphasis upon eliminating waste in industry can lead to the development of more efficient ways of extracting more resources. In the former case, the effort to minimise waste through efficiency is environmentally advantageous, whereas in the latter case, minimising waste through efficiency is largely only economically advantageous.

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By contrast, in my reading of *Pollen*, I will consider how the novel represents technological efficiency as a discourse that produces a certain way of seeing and relating to the world (described below), rather than as a set of technical innovations that are more or less environmentally "friendly." Indeed, Columbus’ Xcabs and Coyote’s black-cab are all cars which, as technologies that pollute the environment by releasing toxins into the air, cannot be considered environmentally “friendly.” Moreover, unlike in *Nymphomation*, where the pollution caused by AnnoDomino’s lottery is acknowledged in the representation of littered streets, in *Pollen* there is no mention of the pollution caused by either the Xcabs or the black-cab. In other words, my discussion of the negative construction of technological efficiency does not hinge upon the relative efficiency of the engines and exhaust systems of Xcabs and the black-cab, a point about which the novel is silent.

Instead, I will argue that it is as a discourse—the social process through which systems of language make and reproduce meanings that shape how humans see and interact with the world—that technological efficiency is represented as leading to *Pollen*’s eco-catastrophe. Employing Guattari’s terminology, *Pollen* represents the discourse of technological efficiency as creating a homogeneous existential Territory that naturalises the value of qualities such as instantaneity, safety, ease of use and ubiquity. Technological devices that offer such capacities are endorsed and adopted, while devices that do not strive to deliver such capacities, but which offer alternative services that engender different values, are marginalised. "Non-efficient" devices and

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75 The car manufacturing process, the way the materials that make the car’s components are extracted, the types of materials that are extracted to make the car run, as well as all the materials and processes that are involved in building and maintaining the infrastructure needed to allow the car to travel from place to place are also ways the car contributes to the pollution of the environment.


77 In this way *Pollen* echoes an environmentalist critique of the discourse of science and how it uses technology:

[i]n the environmentalist critique of science, it is not only particular technologies or the uses to which they are put that are faulted for ecological devastation; more fundamentally, some environmentalists see science’s rationalist and instrumentalist conception of nature as the basic problem: that is, the culture and values associated with science. In this more radical view, simply eliminating some technologies or changing the way in which they are deployed does not address the underlying problem, which is humans’ conviction of their right to use, change, and exploit nature in whichever way they see fit to further their own goals.” Ursula Heise, “Science, Technology, and Postmodernism,” in *The Cambridge Companion to Postmodernism*, ed. Steven Connor (Cambridge: Cambridge University Press, 2004), 146.

78 Guattari, *The Three Ecologies*, 47.

79 The ideal of efficiency engenders values and practices that inform how people relate to each other and their physical environment:

[historically] efficiency was an ideology that in the broader society had been called on, since the beginning of the twentieth century, to support a wide range of politically and ethically loaded activities from imperialism, to eugenics, to the restructuring of the manufacturing industry. To be efficient meant to leave behind late Victorian styles and
the alternative values and relations between humans, technology and environment they engender will be discussed below in terms of Borgmann’s distinction between “devices” and “focal things.” The discursive dominance of technological efficiency in *Pollen* is represented as undermining the Mancunians’ critical agency because it squeezes out alternative values, practices and technologies, denying them access to multiple worldviews and value systems. Adopting devices and services that offer superior technological efficiency is considered “normal” and done without question; this allows those with the expertise to develop and deliver such technologically efficient services to accrue power without being challenged. I read *Pollen* as suggesting that it is because the Mancunians have failed to be critical of the value of the discourse of technological efficiency—unlike Coyote who acts as a mouthpiece for such a critique—that Columbus, and the Vurt-story characters he is in cahoots with, have been able to acquire excessive power, which they use to bring about an eco-catastrophe.

*Xcabs*

Coyote’s description of Xcab highlights the way the company and its taxis are technologically efficient.

Xcabs! With their computerized, super-slick vehicles, all armour-plated yellow-and-black paint jobs. Designed by accountants, driven by retards. Xcabs were latter-day self-styled Knights of the Road, and there were a thousand rumours surrounding them. Coyote’s street-smarts told him that most of the rumours were true. For example, that the drivers were drained of all previous life-knowledge, fixed up with robo implants and a complex knowledge of the streets. That the overall system was run by some nebulous cab-creature calling himself Columbus. That the cabs had guns mounted on the front, just next to the headlights. That the drivers were in some way prescient, they knew you wanted a taxi even before you knew it yourself. Nowadays you called a cab, Xcabs turned up within less than a minute, guaranteed. (12)

This description emphasises that Xcab provides an almost instantaneous service, with taxis arriving within one minute of their being called for. The cab’s armour guarantees that customers will have a safe journey. Instead of having to fight off “zombies” (or other intruders) in hand-and-teeth combat, as does Coyote, Xcab drivers can ward of

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beliefs, and to move forward into a modernity in which Britain would compensate for her waning imperial power by increased productivity and the beginnings of a new global ascendancy in industrial output (or at least that was the theory). Raitt, “The Rhetoric of Efficiency in Early Modernism,” 849.
fintruders before they enter the cab. Also, the seeming prescience of Xcab makes the service very easy for customers, who need not waste their own time by contacting the company and co-ordinating a pick up time. Furthermore, Xcab provides a ubiquitous service within Manchester. Xcab’s Vurt-map represents the whole of Manchester and updates traffic conditions and new roads in real-time (184). The complex knowledge of the streets contained in the drivers’ robo implants is the data of Xcab’s Vurt-map. This knowledge allows drivers to navigate the streets in the most efficient manner; inefficiency through inexperience or lack of knowledge is never an issue for Xcab customers.

Black Cab

By contrast, Coyote’s description of his own black-cab emphasises the ways it is not technologically efficient, but rather a “real antique-scenario” (12). Coyote’s black cab has “the original fare-meter up and working ... nobody does that any more” (9). He drives featherless (18)—that is, without the help of Vurt-maps—because he “doesn’t hold with official maps,” instead he “has the world inside his head” (14-5). He has a wire grill between himself and his passengers because he “likes to talk to his passengers” (19); this is by contrast to Xcabs, which have a sheet of glass between the driver and their fare, presumably because talking, like drivers’ previous life knowledge, will be a distraction that will interfere with the efficiency of the service (48). Also, as already noted, Coyote’s black cab does not have armour, exposing him and his fare to danger, but also excitement. Encoded in Coyote’s framing of his taxi and the service he provides is the value of old-fashioned, personal service: as suggested by his prideful rhetoric, the pursuit and delivery of such service is superior to offering “only” efficiency. Pollen further aligns Coyote’s penchant for old-fashioned taxi service with the values of heroism, spontaneity and vitality. Whereas Xcab journeys are planned and controlled remotely by Columbus via his Vurt-map, meaning that any person with a robo implant can drive an Xcab expertly, Coyote interacts with and reacts to the environmental conditions that confront him by using the skills he has attained through experience and over time.
Technologically Efficient Device

The taxi cabs and taxi service provided by Xcab and Coyote represent different ways of engaging with and understanding the purpose of the technology they both use—the automobile. Useful for considering the significance of Pollen's differing constructions of Xcabs and the black cab is Borgmann's differentiation between technology being understood and used as a “device” and technology being understood as a “focal thing” or as part of a “focal practice.” Borgmann uses the term “device” to describe technology that has been designed to achieve a particular end “without imposing burdens on us.”\(^8^0\)

[t]he machinery makes no demands on our skill, strength, or attention. ... Of all the properties of a device, those alone are crucial and prominent which constitute the commodity [functionality] that the device procures. Informally speaking, the commodity of a device is "what a device is there for."\(^8^1\)

The machinery or form of technology, when it is primarily understood as a “device,” is “changeable and [is] changed, normally on the basis of scientific insight and engineering ingenuity, to make the commodity [technological device] still more available [efficient].”\(^8^2\) This is because the functionality of the “device” is considered its most important aspect. For example, Coyote’s black cab and Columbus’ Xcabs are both essentially the same “device” because they achieve the same function—both transport people from one location to another via taxi; this is despite the fact that the machinery each cab type uses is quite different (simply: Coyote’s black-cab is to analogue technology as Columbus’ Xcabs are to digital technology). The significance of this for the kinds of relations between driver/passenger, technology and environment that “devices” engender becomes apparent when compared to Borgmann's description of “focal things” and “focal practices.”

Focal Thing

Borgmann uses the term “focal thing” to describe technologies that provide a particular end, but do not necessarily do so with optimal efficiency. For Borgmann:

[a] thing ... is inseparable from its context, namely, its world, and from our commerce with the thing and its world, namely, engagement. The experience of a thing is always and also a bodily and social engagement with the thing's world.

\(^8^0\) Borgmann, *Technology and the Character of Everyday Life*, 41.
\(^8^1\) Ibid., 42.
\(^8^2\) Ibid., 43.
In calling forth a manifold engagement, a thing necessarily provides more than one commodity [functionality].

Within the context of technology, a “focal thing” is a technology that is the focus of a range of activities and social relations. Borgmann gives the example of a stove in a preindustrial, by-gone era. While his example is overly sentimental and reeks of conservative gender politics, it nonetheless clearly captures what Borgmann sees as the distinguishing features of a “focal thing.” In addition to providing warmth, the stove was “a focus, a hearth, a place that gathered the work and leisure of a family and gave the house a centre”; for example, “[i]t assigned to the different family members tasks that defined their place in the household. The mother built the fire, the children kept the firebox filled, and the father cut the firewood.” Moreover, the stove “provided for the entire family a regular and bodily engagement with the rhythm of the seasons that was woven together of the threat of cold and the solace of warmth.” That is, whereas a central heating system (a “device”) provides the single function of warmth efficiently from an invisible location (the basement), a stove, by virtue of its centrality and visibility in the home, served a multiplicity of “functions” that called forth manifold engagements between users, the technology and the environment that they all existed within. Furthermore, Borgmann emphasises that the physical engagement with the “focal thing” is “not simply physical contact but the experience of the world through the manifold sensibility of the body.” Borgmann claims that this “sensibility is sharpened and strengthened in skill” and that “[s]kill is intensive and refined world engagement, which, in turn, is bound up with social engagement. It moulds the person and gives them character.” In other words, Borgmann argues that the way individuals interact with “focal things”—with greater or lesser skill—is tied to their sense of self and their social position.

Borgmann’s argument about the relation between “focal things,” skill and identity resonates especially clearly with Pollen’s construction of Coyote. For example, when Coyote is first introduced in the novel, he is not described as the best taxi driver

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83 Ibid., 41.
84 Ibid.
85 Ibid.
86 Ibid.
87 Ibid.
88 It is worth noting that Borgmann’s idyllic scenario, which depicts harmonious relations between humans, technology and “nature,” elides carbon dioxide, carbon monoxide, sulphur dioxide, nitrogen oxides, and ozone that the smoke of the stove’s fire would have released into the atmosphere. While his example is set in a pre-industrial era, meaning that the concentration of these damaging gases would not have been great enough to constitute pollution or contribute to a greenhouse effect, they are still poisons that threaten to disrupt the conviviality of the picture Borgmann paints.
89 Borgmann, Technology and the Character of Everyday Life, 41.
90 Ibid.
of all time, but as “the best black-cab driver of all time” (8). Coyote is not characterised as being skilled at the use of a taxi—a generic, interchangeable “device” with a single function. Rather, he is characterised as having attained a high-level of skill in the use of a particular “thing”—his black cab. In it he has:

- taken more people more miles, to stranger places, in stranger times, ... with slicker twists of the wheel, deeper moves on the map, with fewer accidents, fewer wrong turns, ... and with more gravitas, for less money ... than any other driver could even imagine. (8)

Indeed, the novel explicitly ties Coyote’s identity to his black cab: “Coyote is old-fashioned. That’s why he drives a black cab” (9). In this explanation, Coyote’s skill at driving an old-fashioned taxi dovetails with the primary value through which his identity is expressed: namely, being old-fashioned. Coyote is constructed as experiencing and interacting with the world through his relation to his black cab, which is represented as a key component through which his character is defined. By contrast, driving an Xcab is not represented as requiring any hard-won skill. The efficiency of the combination of Columbus’ Vurt-map, the Xcab “device” and having a “robo implant” means that any “retard” can drive one (12). Like Coyote, Xcab drivers engage with the world through their relation to their Xcab, but unlike Coyote, this engagement erases, rather than expresses, their “unique” identity: Xcab drivers “were drained of all previous life-knowledge” (12). Pollen suggests that the identity of Xcab drivers is not so much defined through their relation to their Xcab “device,” as it is through their relation to the Xcab Company.

**Focal Practice**

Whereas Borgmann’s description of “focal things” emphasises the manifold functions of preindustrial technologies in preindustrial societies, his concept of “focal practices” hopes to capitalise on the manifold engagements that the “focal objects” of yesteryear engendered, but in the context of modern technology. Borgmann’s aim is “to try to discover if such centres of orientation [“focal things”] can be found in greater proximity and intimacy to the technological everyday life,” rather than in, as Borgmann reads Martin Heidegger as suggesting, “pretechnological enclaves.” 90 Borgmann believes that Heidegger’s notion is “misleading and dispiriting” and that “wilderness”—a pretechnological enclave—is in “counterposition to technology” (that is, it is a

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90 Ibid., 200.
location from which technology is excluded). On this point, Borgmann’s line of argument aligns with Morton’s argument, outlined in the Introduction, that the notion of Nature—a pristine wilderness untouched by humans or technology—impedes humans’ ability to apprehend ecological interconnectedness, and, therefore, to adequately respond to and deal with the environmental challenges posed by anthropogenic climates. Insofar as Borgmann seeks to locate the manifold engagements of “focal things” within a contemporary world full of modern technologies, his ideas share a productive resonance with the notion of ecological thinking.

Borgmann’s “focal practice” centres upon a “focal thing” that may or may not be a technological artefact. Furthermore, it involves understanding the activity both in terms of its means (how the activity engages the participant with their socio-physical context), and its end (what function the activity serves):

[t]he purpose of a focal practice is to guard in its undiminished depth and identity the thing that is central to the practice, to shield it against the technological diremption into means and end. ... Practices protect focal things ... from technological subversion.

In other words, a “focal practice” does not reduce a “thing” to its function (what it does), instead it requires practitioners to pay attention to the way that their doing of the “thing” involves their engagement with various social and physical contexts.

One example Borgmann uses is of running, drawing his insights from the published reflections of runners. Understood as a function, running allows people to get from place to place or achieve physical fitness. These activities can be achieved more efficiently by using technological “devices,” such as cars or treadmills. However, understood as a “focal practice,” running does more than achieve these ends. It draws runners’ attention to, for example, the space that they move through—which they do relatively slowly compared to the speed at which they would do so in a car—and the rhythms of their own body as their feet strike the pavement and their breathing becomes heavy. Borgmann notes that:

the runner is mindful of the body because the body is intimate with the world. The mind becomes relatively disembodied when the body is severed from the depth of the world, i.e., when the world is split into commodious surfaces and

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91 Ibid.
93 Borgmann, Technology and the Character of Everyday Life, 208.
94 Ibid.
95 Ibid., 209.
96 Ibid., 201–4.
97 Ibid., 203.
inaccessible machineries. Thus the unity of ends and means, of mind and body, and of body and world is one and the same. It makes itself felt in the vividness with which the runner experiences reality.\(^98\)

For Borgmann, doing an activity as a “focal practice,” rather than as a means to an end, draws practitioners’ attention to the manifold ways in which they are engaging with their socio-physical context.

Importantly, Borgmann notes that in the modern world, where the “products of technology remain ubiquitous,” those who engage in “focal practices” use “devices” while doing their activities; for example, in the case of runners, they use “clothing, shoes, watches, and the roads,” which are objects that “allow for a more skilled and intimate contact with the world.”\(^99\) Here, Borgmann’s point is that it is not that a “focal practice” eschews technology, but rather that pursuing an activity as a “focal practice” changes the way individuals engage with technology, as well as the socio-physical world more generally. For example, Borgmann notes that runners use cars to get places, instead of running everywhere they want to go; however, Borgmann speculates that:

> [s]ince runners deeply enjoy the air, the trees, and the open spaces that grace their running, and since human vigour and health are essential to their enterprise, it would be consistent of them to want an environmentally benign car, one that is free of pollution and requires a minimum of resources for its production and operation. ... [Furthermore, since] runners express themselves through running, they would not need to do so through the glitter, size, and newness of their vehicles.\(^100\)

Without experimentation and research, the veracity of Borgmann’s speculation remains unknown. However, the idea to which it speaks has promise from an ecosophical perspective. Ecosophy seeks out moments in everyday life with nascent potential to cause subjects to swerve from the values and practices “ordered” by discursive governing norms. Likewise, insofar as “focal practices” orient individuals to privilege the manifold engagements that attend their practice and value these “means” over the “ends” the practice achieves, “focal practices” suggest a way of relating to the world that departs from governing norms, which carries the possibility of informing how subjects behave in other, tangentially-related areas of their lives.

What Borgmann’s analysis also points to is the propensity of engaging in “focal practices” to foster a critical understanding of “devices” and the discourse of

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\(^{98}\) Ibid.

\(^{99}\) Ibid., 221.

\(^{100}\) Ibid.
technological efficiency in general. This, to frame the point in terms of ecosophy, is to suggest that a "focal practice" is a good prompt for an a-signifying rupture, as Guattari argues "art" is (an idea discussed in Section Three of the Introduction, under the heading “Art and A-Signifying Ruptures”). The “focal practice” creates a framework through which technologically efficient "devices" are evaluated not only according to their ability to deliver ends efficiently, but also, and more importantly, according to their ability to support the manifold engagements that arise between practitioners, the technology and their socio-physical environment as part of the “focal practice.” In regards to Pollen, the representation of Coyote's driving and his relationship to his black cab are consistent with Borgmann's description of “focal practices” and their impact upon the way individuals interact with their socio-physical context. Moreover, it is through the association of Coyote with “focal practices” and his construction as a heroic character that I understand the novel as critiquing the discourse of technological efficiency that dominates the novel's Manchester and makes the Mancunians vulnerable to the eco-catastrophe brought about by Columbus and the Vurt-story characters. Put another way, Coyote's "focal practice" is the means through which his critical agency is ignited; it is the catalyst for his a-signifying rupture that puts him on a trajectory in which his values increasingly depart from the governing norms of the novel's Mancunian society. While this does not protect his character from the machinations of Columbus and the Vurt-story characters (Coyote is killed by Persephone at the end of the novel's exposition), his critical perspective functions as a framing device through which the reader is encouraged to see the discourse of technological efficiency as a homogenous, oppressive discourse that has robbed the

101 Guattari, The Three Ecologies, 46; Guattari, Chaosmosis, 14–5.
102 Insofar as the restoration of Pollen's environment at the novel's conclusion represents a kind of ecosophic object (as will be described presently), it can be argued that Coyote's “focal practice,” as characteristic of an a-signifying rupture, is its catalyst. This ecosophic object involves the reversal of the eco-catastrophe, which is based upon Sibyl's "discovery" of the dodo beetle as an ecological limit, her advocacy for the radical nonhuman other and her identification with the discourse of myth—an alternative to the discourse of technological efficiency (the latter two points which will be discussed in the next section). These events and understandings are "set off" by Coyote's "focal practice." It is Coyote's "focal practice" that keeps him from being an Xcab taxi driver, which allows him to do a pick up beyond the city wall, an area which Xcab is not permitted to service. His pick-up is Persephone, who kills him upon their arrival into Manchester. Belinda, who is Sibyl's daughter, Coyote's lover and an Xcab taxi driver, works out that Xcab was involved in the pick-up of Persephone, an insight which Columbus overhears her report to another driver. He panics and tries to have her murdered; however, she manages to escape in her Xcab. This disrupts the coming online of the Flower Map, which gives Sibyl time to investigate the origin of the Vurt-pollen attack, and leads to her encounter with Barleycorn, where she discovers the ecological limit that the dodo beetle represents. In other words, Coyote's "focal practice" begins a series of events that little-by-little snowball into actions and knowledge that radically depart from governing norms and lead to improved environmental conditions.
Mancunians of their critical agency and led them to and left them defenceless before an eco-catastrophe.

For Coyote, providing a taxi service is represented as more of a “focal practice” than as a means to procure income (although it does also provide him this). Indeed, this is how the omniscient narrator explicitly introduces Coyote to the reader in the novel’s exposition: “[a]ll he [Coyote] wants ... is to drive people from address to address[,] ... And now here he is doing it, his favourite game: driving some strange fare towards Manchester” (18). In addition to taking passengers from place to place, for Coyote, providing a taxi service includes courtesies and skills such as not insisting on receiving payment up-front (9), making conversation with his passengers (19), personally protecting his passengers’ welfare (22), having expert driving skills (9), and having a thorough knowledge of Manchester’s streets (24). Coyote’s representation suggests that he chooses to keep his “antique-scenario” of a black cab because its design allows him to provide the services that are central to his “focal practice.” Furthermore, Coyote’s black cab is not represented as severing his connection to the spaces through which he moves; rather, it is represented as the means by which he becomes intimately connected to them: “like a dog urinating on lamp posts. Coyote marks out his territory as he comes to it” (15). “Up-grading” to a more technologically advanced taxi “device” would allow Coyote to achieve the ends of transporting people and making money more efficiently. However, the novel suggests that it would undermine the manifold engagements that emerge between himself and his socio-physical environment (especially between himself and his passengers and between himself and the territories he moves through) that providing a taxi service—his “focal practice”—by using his black cab enables. Pollen critiques the discourse of technological efficiency by highlighting the multifaceted services Coyote can deliver by using his antiquated black cab—services and engagements that are precluded by the technological efficiency of Xcabs’ taxi “device.”

Pollen reveals the advantages of the manifold engagements of Coyote’s taxi service to the reader by privileging Coyote’s critical perspective of Xcabs, a kind of “device” that achieves only what it was made for with the utmost efficiency. However, by simultaneously constructing Coyote and his alternative value system—traditional over efficient service—as marginal, the novel reveals the dominance of the discourse of technological efficiency in its fictional Mancunian society. Despite the excellence of Coyote’s driving skill and old-fashioned service, he finds it difficult to attract customers. Indeed, within the novel’s geographical topography, he literally works at the margins: the pick-up he is making in the novel’s opening scene is “illegal” and takes place in the
area beyond Manchester's walled perimeter (19). The novel's juxtaposition of Coyote's black cab service and Columbus' Xcab service suggests that the main point of difference between them is their capacity for technological efficiency; because Coyote cannot compete in this category, he fails to readily secure customers. This, in turn, suggests the dominance of the discourse of technological efficiency in the novel's fictional Manchester. Unlike Coyote, who is constructed as selecting the technology he engages with (his black cab) on the basis of its ability to facilitate his "focal practice" (providing traditional taxi service), the Mancunians are constructed as choosing technologies based primarily upon their ability to deliver ends efficiently. That is, they value "devices" over "focal things." However, it is worth noting that the Mancunians are not so much represented as choosing not to engage with technology in a way that calls forth the manifold engagements that emerge between user, technology and socio-physical environment. Rather they are represented as not even recognising the possibility of engaging with technology in an alternative way. As the Mancunians of Nymphomation are duped by the order-words of the blurbflies, the Mancunians of Pollen are cajoled by the convenience of technological efficiency. It is through Pollen's privileging of Coyote's critical "outsider" perspective that the reader is made aware of the Mancunians' uncritical adoption of the efficient technologies offered by Xcab. This is also the technique by which the reader becomes aware of the way discourse impedes the Mancunians' ability to resist the power of Columbus and the Vurt-story characters as they wreak ecological havoc.

**Vurt Technology and Mancunian Society**

The marginalisation of Coyote's taxi service and the values it engenders sets up the dominance of the discourse of technological efficiency in the novel's fictional Manchester. Because the ideal of efficiency is valued unquestioningly, technologically efficient "devices" dominate all aspects of Pollen's Mancunian society. Significantly, Vurt-technology underpins the efficiency of all of these "devices." In turn, Vurt-technology is represented as having transformed not only Manchester's taxi service, but all of Mancunian society, including how the Mancunians interact with each other and how they understand their relation to the physical environment they inhabit. In relation to social institutions, Vurt's immersive aspect, as well as its capacity to efficiently record and archive information, is exploited by the entertainment and transport industries, and also the institution of law enforcement. As will be demonstrated in this section, the particularities of Vurt's way of capturing, storing and sharing information mediates and organises the relation between individuals as well as
between individuals and their physical environment. In this way, individualism is privileged over collectivism, and knowledge is handed over to private interest; both of these moves undermine the Mancunians’ power to stand against Columbus, the Vurt-story characters and their eco-catastrophe.

*Pollen* represents the technological efficiency of Vurt-technology combined with Columbus’ technical expertise and private ownership of it as endowing Columbus and the Vurt-story characters with excessive power and the ability to control Mancunians and the discourse that dominates their existential Territory. *Pollen* portrays Columbus as having been able to acquire this power because of the cultural value placed upon attaining ends with utmost efficiency, a value which Vurt-technology is shown to enable. Thus, Vurt-technology and the discourse of technological efficiency are represented as being mutually reinforcing. It is not technology itself that drives technological efficiency, but a value system that “selects for” efficiency. Because the novel’s Mancunians have failed to be critical of this value system, and because they have failed to resist the profound changes Vurt-technology has made to the ways they interact with their socio-physical environment, the novel suggests that they have unwittingly handed over control of the city, their lives and “reality” to those who control Vurt-technology. The discourse of technological efficiency thus emerges as a cultural impediment to the ability of the novel’s Mancunians to recognise and take action against the interests of private entities (Columbus and the Vurt-story characters) that threaten their own existence. This reading of *Pollen*, by drawing attention to the latent connections between discourse and eco-catastrophe at work in the novel, engages with the descriptive arm of ecosophy: it is suggestive of the profound way homogeneous signifying regimes impact upon the physical environment via the stronghold they maintain over subjects’ psyches. In the following section, I will focus upon *Pollen*’s representation of the impact of Vurt technology on Mancunian society. By examining its role in entertainment, data collection and surveillance, I will argue that it undermines collective action and gives Xcab extraordinary powers of control.

All Mancunians, with the exception of dodos, are represented as having taken up Vurt-technology for the purpose of entertainment in *Pollen*. Vurt-technology allows them to more easily (read: efficiently) engage with the thoughts and feelings of the characters and/or players that feature in the entertainment scenario. As already noted, by tickling a feather at the back of their throat, the Mancunians access the Vurt-realm, which allows them to remotely enter the world of the entertainment via their minds. The novel’s representation of entertainment mediated by Vurt-technology critically
foregrounds the kinds of interactions between individuals that are marginalised because of its efficiency at enabling immersive entertainment. The difference between the relation of the spectator to the event and the spectators to each other when mediated by Vurt-technology is demonstrated through the character Belinda, who like her mother Sibyl, is a dodo. Therefore, rather than accessing entertainment events via the Vurt, she must watch Vurt-dramas via a television screen (135), and soccer games, called Vurtball, by viewing the play on the field (130). In both cases she is separated from the action by distance and she does not have direct access to the emotional states of the individuals she is viewing. Her connection to the action is vicarious and there is a clear demarcation between inside and outside: the players and actors are inside the game and drama respectively, and Belinda, being outside, is only able to observe their actions and infer their emotional states. In contrast, non-dodo Mancunians using Vurt-technology have access to the entertainment events from “inside” the action. In the case of Vurtball, they “watch” the field “like [they are] living inside of someone else, some smart player on the field” (133). Also, instead of cheering “out-loud,” the “supporters scream [sic] through their feathers, working their players towards a goal” (132). In this scenario, the spectators directly engage with the action of the game, and through their intimate connection, exert influence over the game’s outcome. So while the spectators’ bodies are outside and spatially distant from the players’ bodies, they are brought inside the players and the game through the feedback loop set-up by Vurt-technology.

Importantly and ironically, Pollen constructs this more direct and intimate mode of sharing experiences as more physically alienating. That is, despite the spectators being physically proximate to each other in the Vurtball stadium, they do not share the experience of the game from the physical perspective of those sitting next to them. Instead, the Vurt transports them away from their physical location to the centre of the field: they “watch” the game with “eyes [that] are glazed over” (132).103 Vurt, as a mediating technology, disengages those who use it from their immediate, physical location, and as such, it privileges individual experience over collective experience. The novel suggests that the political consequence of this is that it prevents Mancunians from mobilising groups based upon shared political interest. When such a collective interest does arise in response to the health threat posed to all Mancunians (save the dodos) by the Vurt-pollen attack, the Mancunians assemble to listen to a radio broadcast by Gumbo YaYa without employing Vurt: “[t]he Gumbo wave plays

103 In this image, Pollen presents a scene reminiscent of Guattari’s critique of television noted in the Introduction, but worth repeating here: “[t]he tele-spectator remains passive in front of a screen, prisoner of a quasi-hypnotic relation, cut off from the other, stripped of any awareness of responsibility.” Guattari, “Remaking Social Practices,” 263.
from a thousand speakers all over the city. Some have got a gumbo feather in their mouths, but most are content to listen in public. It’s a collective experience” (189). Gumbo YaYa’s “old-fashioned” and less efficient radio service, like Coyote’s “old-fashioned” and less efficient taxi service, is depicted in a way that is consistent with Borgmann’s notion that “focal things” produce manifold engagements that are eschewed when technologies are engaged with as efficient “devices.” Entertainment that uses Vurt-technology is represented as structuring the Mancunians experience of their shared socio-physical environment so that it is highly individualised, obfuscating their shared political interests. In efficiently delivering immersive entertainment experiences, the Mancunians uncritical adoption of Vurt-technology efficiently undermines their collective power.

Vurt-technology is also represented as being extensively employed by the police and Manchester City Council’s town planning department to help in the efficient delivery of services, as well as the efficient recording and archiving of materials. However, as in Nymphomation, Pollen’s public institutions are depicted as being in partnerships with private corporations: the Vurt-technology used by Pollen’s police and town planning department has been developed and is run by Columbus’ Xcab Company. Access to the information about public matters that is contained in the Vurt-technology is tightly controlled—accessing the information without permission or payment is punished with imprisonment (351). However, as Columbus maintains the government’s Vurt-technology systems, he can access the information freely. Only high-ranking public employees and Columbus can access the information contained in the Vurt-system. Therefore, Vurt-technology helps to maintain hierarchies of power where those who can legitimately access the information (Columbus and the police) are empowered and those who are denied access (the general public, including Sibyl who is trying to discover the source of the eco-catastrophe) are disempowered.

Additionally, the joined-up partnership between the police and Columbus, combined with the Vurt-map’s capacity for surveillance, is constructed as giving them incredible power. As part of Xcab’s service, Columbus uses Vurt-technology to determine how drivers and their passengers move through Manchester: where the drivers go, who they pick up, and when they are picked up. However, Columbus also abuses his unfettered access to information and powers of surveillance. After hearing Belinda talk about Coyote to another Xcab driver after Coyote’s murder, Columbus attempts to orchestrate Belinda’s death by instructing her to pick-up a fare—Inspector Crawl who is to be her assassin—and then directing her to a drop-off point that is “kind of bleak”—an isolated place in which it is easy to commit a crime (47). Just before the
novel's climax sequence between Sibyl and Barleycorn, Columbus uses his access to the city's town planning department to locate the whereabouts of dissident radio host Gumbo YaYa in order to silence him and bring the Flower Map online. Gumbo YaYa is the news service provider who broadcasts information about Xcab's and the police's involvement in the Vurt-pollen attack, an act which had started to galvanise the Mancunians' critical agency and collective power (but fell short of doing so because the Vurt-pollen sickness had already taken hold): as the omniscient narrator reports, "Columbus has been having problems ... because of that Gumbo bastard the whole of the city seemed to be turning against him" (245). The surveillance capacity of the Vurt-map also helps Columbus to control his employees in a more subtle manner. Columbus is able to "listen in" to the conversation in a driver's Xcab at all times, a fact which the drivers are aware of; "however, when exactly Columbus is "listening in," is unknown to the driver (46). Vurt-technology thus instantiates a Foucauldian panopticon;\(^{104}\) because drivers know they can be secretly listened to by Columbus at any time, they avoid misspeaking altogether. Through his ability to access and control Vurt technology, Columbus is constructed as wielding tremendous powers of surveillance and control, which he misuses to satisfy his selfish goals.

In summary: by constructing and privileging Coyote's critical perspective of technologically efficient devices, the novel depicts the Mancunians as passively allowing Xcab and Vurt technologies to become insinuated in their society and culture. The novel's Mancunians, unlike Coyote, unquestioningly accept instantaneity, safety, ease of use and ubiquity as beneficial qualities and "good" values, and so readily adopt technologies that enable ends to be achieved in optimally efficient ways. However, the novel represents such technologically efficient "benefits" as coming at a very high ecological "cost." The novel associates the technologically efficient Xcab and Vurt with undermining the Mancunians critical and collective agency and leading them to unwittingly hand over power and control to private corporations, who abuse it to achieve their ecologically disastrous ends. In this way, the novel connects its construction of the discourse of technological efficiency (social) with environmental destruction (physical), via the influence this discourse exerts over the psyche of the Mancunians (mental).

Section Four: Maps and Myths

Maps

Columbus’ Xcab Vurt-map—in addition to being an example of a technologically efficient “device”—is also emblematic of the kind of knowledge that is privileged in the discourse of scientific positivism. As discussed in the Introduction, according to feminist philosopher Lorraine Code, positivistic science produces knowledge in order to “manipulate, predict, and control” the object that is being studied. Indeed, this is the end to which Columbus puts the Xcab Vurt-map: he uses it to bring forth his idealised model of “reality,” an idea that is premised upon the control of physical reality. Furthermore, the construction of Columbus’ character draws upon the stereotype of the idealised epistemic subject of positivistic science. According to Code, the knowledge produced by this idealised subject is understood to be objective because the knower (scientist) appears to be a disembodied and decontextualised mind. The subjective particularities that attend embodiment and context are seen to undermine objectivity, and, therefore, their presence is denied. This conceptually places the knower outside of the world about which they are producing knowledge; in turn, this reinforces the fallacious notion that they are unaffected by and not compelled to be responsible for the human and nonhuman “objects” about which they produce knowledge.

Columbus’ construction resonates with the characteristics of the idealised epistemic subject insofar as he is represented as a disembodied figure who acts as if he can control physical reality without himself being affected. This reading of Columbus and his Xcab Vurt-map seeks to highlight how the novel represents them in a way that reinforces the conceptual separation of human (mind) from “nature” (their bodies and physical reality), which is engendered by the discourse of scientific positivism. In turn, Columbus’ unequivocally negative portrayal throughout the entire novel positions readers to critique the beliefs, values and practices that underpin the discourse of scientific positivism (which, in Pollen, are constructed as complementing the discourse of technological efficiency on the one hand, and as leading the Mancunians to an eco-catastrophe on the other).

The Xcab Vurt-map is constructed as a way of representing physical reality that encourages it being understood as able to be dominated and manipulated by scientific

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105 Code, Ecological Thinking, 41.
106 Ibid., 207–8.
ways of knowing. J. B. Harley, a map historian who brings critical theory to the study of cartography,\textsuperscript{108} identifies a “cartographic positivism” at work in the production and reception of maps. As summarised by A. H. Andrews, Harley's interpretation of maps is aimed at scrutinising the dominant belief that “cartography is, and can be, objective, detached, neutral ... and transparent. ... [Moreover, it critiques the idea that the] accuracy of maps consists of mirroring their subject matter.”\textsuperscript{109} The Xcab Vurt-map’s depiction speaks to this dominant understanding of maps. It is as an abstract, objective and manipulable representation of Manchester that allows Columbus to interact with it and shape it from a distance. In turn, these characteristics of the map underpin Columbus’ sense of control over Manchester’s physical environment. Pollen represents Xcab’s Vurt-map as displaying Manchester’s roads and the Xcabs as they travel along them (184). Columbus interacts with the city by “comput[ing] combined trajectories” on the map and then sending his Xcabbers to physical locations that he wishes to know more about (245-9). Significantly, the scene that depicts Columbus remotely navigating Manchester via his Vurt-map culminates in his bringing “BARLEYCORN’S FLOWER MAP”—the Vurt-map program that will bring about hyperreality—online (249). In this scene, Columbus’ manipulation of physical reality from his distanced position is directly associated with its destruction by bringing about the eco-catastrophe.

The remote access capabilities and objective precision of Columbus’ Vurt-map are in sharp contrast to Coyote’s maps of Manchester. The ways that their respective maps are different, which will be discussed presently, underscores how Columbus’ map reinforces his conceptual separation from the world he seeks to control. Coyote’s maps are contingent upon his embodied experiences of driving his black cab. That is, they are manifestations of the manifold engagements between himself, his cab (technology) and the physical environments he encounters as part of his “focal practice.” Therefore, Coyote’s maps are markers of his situated knowledge, which, as Code notes, is integral to knowing responsibly and well—key aspects of her notion of ecological thinking.\textsuperscript{110}

The first of Coyote’s maps is an idiosyncratic territorial map, which as mentioned above, he makes as he physically passes through the territory “like a dog urinating on lamp posts” (15). Unlike Columbus’ Vurt-map, this map is entirely subjective and can

\textsuperscript{108} Harley notes that, in his practice of “map interpretation” (which differs from the more common meaning of “map interpretation”—locating geographical features on a map), “[m]aps cease to be understood primarily as inert records of morphological landscapes or passive reflections of the world of objects, but are regarded as refracted images contributing to dialogue in a socially constructed world.” “Maps, Knowledge, and Power,” in The Iconography of Landscapes: Essays on the Symbolic Representation, Design, and Use of Past Environments, ed. Denis Cosgrove and Stephen Daniels (Cambridge: Cambridge University Press, 1988), 277–8.


\textsuperscript{110} Code, Ecological Thinking, 32.
only be created by Coyote being physically present in the territory; in other words, it cannot be created from mathematical abstractions. The second of Coyote's maps is a wall map of Manchester that he has "pricked with pins, and scribbled over with felt-tip markings" (66). The wall map is similar to Columbus' map insofar as it employs typical cartographic techniques; however, Coyote has made it subjective by overlaying its objective representation of streets with etchings that record his personal experiences of the places it represents. Coyote's mapping "techniques" emerge from his situated knowledge of Manchester, and the kind of knowledge his maps produce are highly subjective, revealing as much about their creator as they do about the territory they represent.

Columbus' map, by contrast, is contained in the digital medium of Vurt; this allows it to be readily manipulated, which alters how Euclidean space is perceived. For example, at one point in the novel, when Gumbo YaYa is controlling the map after having hacked into Columbus' system, he "works the controls [of the machine projecting the Vurt-map visualisation] so that the whole map tilts through 180 degrees. ... We can view it from any angle, any position" (184). The Xcab map and the Vurt medium through which it is visualised make the physical reality they represent seem as if it is a malleable object that can be manipulated and transformed according to the desires of its user. The exactitude with which the map represents reality and the ease with which Vurt-technology allows this exact representation of reality to be shaped underpin Columbus' false impression that he can bend physical reality to his will.

The construction of Columbus' character speaks to the notion of the rational scientist as a disembodied mind, which in turn points to the conceptual separation between mind and body-environment that Code argues underpins scientific positivism. Moreover, the association of Columbus—a disembodied mind hell-bent on controlling reality—with the Xcab Vurt-map secures the connection the novel makes between cartography, a scientific positivist way of knowing and relating to the world, and eco-catastrophe. In particular, he is represented as resenting his embodiment because it impedes his objective rationality. Columbus is a "half-and-half creature. He lives partly in the Vurt and partly in the real world" (214); however, his location in Manchester or the appearance of his physical body are never described in the novel. Instead, he is characterised as a "nebulous cab-creature" (12). Unlike Coyote, whose maps emerge from his physical encounters with Manchester, Columbus' Xcab Vurt-map is represented as literally emerging from his mind: "Columbus has the city spread out all around him, radiating from the centre of his brain" (245). In this image,
Columbus’ brain is a metonym for his entire body; as the brain is popularly understood as the location of mind, this image reinforces Columbus’ singular association with reason and logic.

At one point, when Columbus overhears Belinda mention to another Xcab driver that she had given Coyote the information for Persephone’s pick-up, Columbus becomes “scared suddenly”—this is because Persephone’s knowledge might threaten his and Barleycorn’s Vurt-pollen attack (46). In this moment, Columbus’ “one per cent of humanity comes into play, overriding the Vurt-logic” and he decides to have Belinda assassinated (46). In this description of Columbus, the novel aligns humanity with emotions and bodily responses, and suggests that such emotions interfere with the objectivity and rationality of Vurt-logic. The omniscient narrator reports that Columbus soon after regrets his emotion-based reaction: “[i]f only he hadn’t let his one per cent of humanity rule his feelings. ... Columbus hated getting angry, it was way too much like human behaviour” (52-3). Columbus sees his body as a thing to be cursed and banished because it hinders his capacity to think and act rationally. Columbus’ construction epitomises the ideal of the disembodied and decontextualized epistemic subject of scientific positivism, as he seeks to control and manipulate the physical world using the objective knowledge he produces. Columbus’ sense of separation from physical reality is bolstered by his scientific tool—the Xcab Vurt-map—which allows him to know about and control remote places without his needing to be physically present. In this way, I read Pollen as representing positivist science—its ideal subject and tools—as perpetuating the conceptual separation of humans from their physical environment.

**Myths**

In contrast, Pollen’s climactic sequence represents mythical understandings of the world as capable of re-establishing humans’ ability to conceptualise the ways they are interconnected with their physical environment; furthermore, the novel associates this way of knowing with the reversal of the eco-catastrophe. Thus, the role of mythical ways of knowing in Pollen’s climactic sequence departs from the way myths are otherwise represented throughout the novel. Throughout the novel’s development, it is the combined machinations of Columbus with the Vurt-story characters from the myth of Persephone that brings about eco-catastrophe; during the novel’s climactic sequence, by contrast, it is Sibyl’s identification with the maternal emotions of Demeter from the myth of Persephone that brings about the restoration of Manchester’s environment. This, as will be discussed below, is a move that, on the one hand, rehearses some
troubling gender assumptions which, on the other hand, the novel goes some way towards overcoming in its final scenes. I will argue that the novel reinscribes myths positively in its climactic sequence by disassociating them from maps and the discourse of positivistic science, and, subsequently, associating them with qualities and categories traditionally aligned with the feminine (for example, motherhood, empathy, emotions and “nature”). Through these new associations, Pollen promotes myths and the feminine—as opposed to maps and the masculine—as mediating discourses with the potential to engender relations between characters, and between characters and their physical environment, that can foster a habitable world.

I will begin my analysis of Pollen’s positive encoding of myth in its denouement by drawing upon the work of Claude Levi-Strauss. As ecocritic Laurence Coupe notes, “Levi-Strauss has usually been associated with an arid rationalism and with a rigid distinction between culture and nature”;\(^{112}\) this is because of his association with structuralism, which “is not particularly interested in meaning per se [the “reality” to which words refer], but rather in attempting to describe and understand the conventions and modes of signification that make it possible to ‘mean’ [how language works as an abstract system].”\(^{113}\) However, as Coupe discusses briefly in relation to Levi-Strauss’ “Structuralism and Ecology” (the research from which I will draw insights),\(^{114}\) and as Conley discusses in detail in relation to many of his works,\(^{115}\) this is not the only way to understand Levi-Strauss’ ideas—ideas which, in several instances, emphasise the role the physical environment plays in shaping the linguistic structures he studied.\(^{116}\) I will take up this strand of Levi-Strauss’ work to consider Pollen’s representation of myth.

Pollen’s final depiction of the function of myths echoes Levi-Strauss’ suggestion that they emerge from speculations about “nature,” and are the source of humans’ earliest attempts to understand how nature works.\(^{117}\) Indeed, for the ancient Greeks, this was a primary function of the myth of Persephone. As already noted, this myth offered a pre-scientific way of accounting for the duration and characteristics of the


\(^{115}\) Conley, Ecopolitics, 56–75.

\(^{116}\) Insofar as it resonates with the notion of interconnectedness between the immaterial and the physical that I have argued is characteristic of ecological thinking, of particular interest is Conley’s summary of Levi-Strauss’ work: “[i]n the structural design of ecology, the world and the mind work together, deciphering concurrently the texts that they constitute. Both mind and world are interdependent and even isomorphic. To think mythically or structurally is to be-in-the-world. But to allow one, the mind, to accede to a dominion over the other, the world, means to fall into Cartesian and Hegelian recidivism.” Ibid., 46.

changing seasons. However, Levi-Strauss contends that myths do more than “simply” explain natural phenomena; they also help humans to maintain a connection with it. Levi-Strauss’ analysis of the representation of the porcupine in the myths of native Canadian peoples illustrates his theory. Levi-Strauss noticed that in the myths of groups that lived in close proximity to the porcupine, the animal appeared as an ordinary and troublesome rodent; however, for groups that had migrated to an area where there were no porcupines, the animal appeared as the coveted embodiment of the moon. Levi-Strauss maintains that the appearance of the porcupine as a supernatural figure in the myth of the migratory groups emerges from an “obscure wish [sic] to maintain the coherent relationships conceived by men in a previous environment.” In this sense, according to Levi-Strauss, myths function as representational bridges that link people and culture to place; they are cultural constructions of “nature” that are intimately tied to the physical reality from which they arose.

In Pollen, the desire for such a coherent relationship between humans and their physical environment appears initially to be absent. In other words, the continuum between humans and the physical environment via myth has been ruptured. Pollen implies that the marginalisation of mythical ways of knowing from the fictional Manchester it represents is one of the reasons why the Vurt-story characters have instigated the Vurt-Pollen attack. When Barleycorn is showing Sibyl his idealised vision of a post-Vurt-pollen attack future, he takes Sibyl to see a sick Alice in Wonderland who is in fact acting as an avatar of Persephone:

“What’s happening here?” [Sibyl] asked.

“Alice is dying,” John Barleycorn answered.

“Alice in Wonderland? But surely…”

“This is what happens when the dream [that is, story] withers.”

“You told me that the dream couldn’t die.”

“A dream undreamt is a dying fantasy and nobody, it seems, these days, wants to dream about dear, sweet Alice. … The only way I can keep Alice alive is by transporting her to reality through the new map.” (331)

Because Alice is Persephone in this dream within a dream sequence, Barleycorn’s comments mean that it is actually the myth of Persephone that is no longer being told: it is a defunct explanation of “nature” that has been replaced by the techno-scientific understandings of Xcab.

118 Ibid., 113.
119 Ibid., 115.
Significantly, in this scene, Barleycorn rationalises the Vurt-pollen attack on Manchester as a way of ensuring the survival of Persephone: that is, as a way of reasserting the importance of the Persephone myth. However, Barleycorn’s method of restoring the myth of Persephone—the Vurt-pollen attack—uses the technology that has been instrumental in displacing mythical ways of understanding. Columbus’ Xcab Vurt-map is the Virtual infrastructure that allows the Vurt-pollen to insinuate itself in reality (214). It is important to note, firstly, that this method of reasserting mythical ways of knowing is aligned with male characters—Barleycorn and Columbus—who are constructed as possessing qualities traditionally associated with the masculine in western culture. In particular, Columbus is constructed as representative of logic and reason, Barleycorn is constructed as representative of sexual prowess, and both are constructed as representative of dominance and mastery exercised through hierarchal relations of power. Secondly, it is important to note that this method of reasserting mythical ways of knowing fails. When Vurt-myths team up with Vurt-maps to control the “real,” they fail to do so because their utopian visions are shown to be unable to accommodate the complexity of physical reality: namely, the existence of the dodos. In terms of Levi-Strauss’ understanding of the propensity of myths to connect people to place, Barleycorn’s method of reasserting the myth of Persephone fails because instead of reconnecting Mancunians to “nature,” it attempts to eliminate physical reality altogether.

While the novel dismisses Barleycorn’s masculinised combative method of reasserting mythical understandings of “nature,” Pollen nonetheless promotes myth as a productive way to reconnect people to place. This interpretation emerges from the way the novel resolves its eco-catastrophe: namely, through the empathetic identification of Sibyl with Demeter in terms of a shared understanding of maternal emotions regarding a mother’s welfare for her children. During Sibyl’s conversation with Barleycorn at the novel’s climax, Sibyl reveals under duress that her motivation for pleading with Barleycorn to stop the Vurt-pollen attack is not her concern for the Mancunians and Manchester generally, but rather her concern for her son Jewel:

[Sibyl:] “[y]ou have to stop the fever, Barleycorn. People are dying.”
[Barleycorn:] “Sibyl, I do believe you’re lying to me. You no longer have any interest in the outside world, in reality. People! ... It is your son—this ugly, little swine who now dines at my expense—it is he that you want to save.”

... “Yes. Please don’t let my Jewel die.” (316)

Sibyl’s desperation to save her son from the Vurt-pollen fever leads to her using her dodo beetle as leverage against Barleycorn and Persephone. After “leach[ing] a tiny
portion of her Shadow into my [Sibyl's] internal Dodo Beetle” while in Barleycorn’s idealised vision of the future, and after Barleycorn has ripped the dodo beetle from her avatar, Sibyl manages to pluck the insect from Barleycorn’s grasp; she then plunge it into Alice-Persephone’s throat (332-6). This threatens to kill Persephone, so Barleycorn agrees to stop the Vurt-pollen attack.

Before the attack can be fully repealed, Sibyl must “fight” with Demeter, who has also been involved in the Vurt-story characters’ plans. The reason given for Demeter’s involvement is that she “likes the idea of her daughter making flowers in reality, despite the fact that reality will damage her daughter” (336). Importantly, Demeter’s manifestation in both Vurtual reality and physical reality is as “nature” itself: “Demeter is everywhere, in all things green and cultivated. ... The Vurt and the real, both provide her with nourishment” (336). Sibyl encounters Demeter as a forest:

there was no rain in the forest, so that wetness must have been tears. The weeping woods. And I [Sibyl] knew that pain, then, for what it was. A mother’s pain. This forest was Persephone’s mother. Demeter. ... And then she spoke to me, that forest, in words made out of leaves: “I will not allow this [the cessation of the Vurt-pollen attack]. Persephone is my only child. She is my life. She must have air. She must breathe again, the breath of Earth. Do you hear me? Do you care to? You call yourself a mother, and yet you allow your children to die. What nature is this?” (342-3)

However, Demeter does allow the Vurt-pollen attack to end; not upon the request of Sibyl, but of Persephone: “Mummy, please do this for me. I’ll die if I go back to the real world. ... A mother giving in to a daughter’s wishes. Was that the sacrifice?” (343).

Following this scene, Sibyl rises from the Vurt(ual) underworld to find:

Home. Manchester. The new map turning into the old as I travelled backwards. The fever coming to rest against the edges of love. The black cab travelling into St Ann’s Square where the people were already dancing on air at the lessening of the fever. (346-7)

In other words, persuaded by Persephone’s entreaties, Demeter stops and reverses the eco-catastrophe.

The entirety of the climactic sequence is framed by Sibyl’s first-person perspective. Emerging from this perspective is an emphasis upon the parallels between Sibyl’s and Demeter’s motivations and feelings: namely, the lengths to which they will go for the welfare of their children and the deep emotions their children bring forth in
them. Both characters are prepared to harm others to protect their children—Sibyl will kill Persephone and Demeter will kill Manchester’s humans—and both characters are prepared to make sacrifices for their children—Sibyl sacrifices her physical body and Demeter sacrifices her aspirations. Additionally, Sibyl recognises the forest as Demeter because she identifies with a “mother’s pain.” The framing of Sibyl’s encounters with Demeter in terms of identification serves as a representational bridge that re-establishes the continuity between myth (representation), “nature” (physical reality) and human. Sibyl can understand Demeter because of their common experience of motherhood; and because Demeter is both a myth about “all things green and cultivated” and also responsible for the flourishing of “all things green and cultivated” in physical reality, Sibyl’s identification with Demeter serves as the linchpin connecting women-mother, myth and “nature.” In turn, Demeter’s submission to her daughter’s request and Sibyl’s identification of this as a motherly sacrifice is associated with eco-restoration. Therefore, Pollen inscribes mythical understandings as a way to help humans—via the feminine—conceptualise how they are related to and interconnected with the physical environment, a move which the novel links to the return of habitable ecologies.

Following the failure of Barleycorn’s attempt to reassert the myth of Persephone in physical reality using Columbus’ Xcab Vurt-map, Barleycorn devises an alternative way to “implant” Vurtual reality into physical reality. This plan involves his impregnating Belinda/Sibyl (which he does with Sibyl’s permission); the genes of the child that she bears will be a combination of Barleycorn’s Vurt-DNA code and Belinda’s human-DNA code. This alternative way of introducing the Vurt to Manchester is not presented as having disastrous effects on the city’s ecology. Severed from Columbus’ techno-scientific maps and tied to the feminine and motherhood, the Vurt’s entrance to physical reality via Belinda’s child is associated with the “birth” of ecologically sound engagements between Vurt-technology and the physical environment. Barleycorn has intercourse with Belinda immediately before she and Sibyl exit his Vurt-underworld, and the Manchester they return to is in the process of becoming Vurt-pollen free. The possibility of Columbus and his technologically efficient use of Vurt-technology disrupting this changed Manchester is foreclosed by his violent obliteration:

[and then all the windows of the black cab were broken as four bullets flew together towards a single target, high speed. All four of them pounded their way into Columbus’ skull, the North, South, East and West of him. He screamed

\[120\] Through these representations, Pollen draws attention to a necessary, but often elided, condition involved in the “ethic of care”: “a relationship of care is actually definable by selfishness, as the decision to care is necessarily about caring for one (or some) over others.” Johns-Putra, “Care, Gender, and the Climate-Changed Future,” 138.
again, and then his head exploded.... The black cab was a blood-map-splattered.

(345)

Pollen suggests that when imposed on Manchester through the Xcab system, the myth of Persephone wreaks havoc; but when introduced through an understanding of the shared reproductive and life-sustaining role of women and "nature," the myth of Persephone brings about the reversal of environmental damage.

This reading of Pollen implies that the novel advocates replacing scientific understandings of "nature" (associated with maps and the masculine) with pre-scientific understandings of "nature" (associated with myths and the feminine) as a way to overcome environmentally destructive values and practices. It thus suggests that the novel reproduces some of the problematic arguments of "radical ecofeminism." Before explaining what is meant by this term, it is necessary to stipulate the meaning of "ecofeminism." As feminist philosopher Karen J. Warren notes, ecofeminists, no matter their particular strand, see "important connections between the domination of women and the domination of nature."¹²¹ Broadly, then, ecofeminism understands patriarchy as legitimating the systematic oppression and exploitation of both women and nature in the service of Man. Radical ecofeminists, more specifically, are interested in "mystifying women's experiences by locating women closer to nature than men, and offer[ing] historically essentialist accounts of 'women's experiences.'"¹²² Moreover, as ecocritic Greg Garrard summarises, radical ecofeminism tends to follow the logic of "uncritical reversal" (to borrow Plumwood's term¹²³):

[i]f some have been associated with nature, and each denigrated with reference to the other, it may seem worthwhile to attack the hierarchy by reversing the terms, exalting nature, irrationality, emotion and the human or non-human body as against culture, reason and the mind.¹²⁴

The problem with this move is that it presents the "essence of woman" as biologically determined by her reproductive capacity and its associated "nurturing nature," which in turn imposes limits on what social roles are acceptable for her to play,¹²⁵ whether or not they are socially valued (Garrard notes that such objections now seem "to have been generally accepted by ecofeminists").¹²⁶ Indeed, as discussed in Chapter One of

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¹²³ Plumwood, Feminism and the Mastery of Nature, 30.
¹²⁴ Garrard, Ecocriticism, 26.
¹²⁵ Conversely, it also limits what roles men are prohibited from playing.
¹²⁶ Garrard, Ecocriticism, 24.
this thesis, Plumwood argues that dualisms are the root of the problem because they construct difference hierarchically, and this cannot be corrected by reversing the binary. It is oppositional thinking itself that must be overcome to vanquish the oppressive master-slave relationships engendered by dualisms.

Despite Pollen’s privileging of myths (coded feminine) over maps (coded masculine) in the novel’s climactic sequence, the novel nonetheless begins the process of overcoming the hierarchical dualisms it has set up through the construction of the newly impregnated Belinda. Her pregnancy links her to the novel’s positive valuation of the woman-mother-earth alignment, but the tattoo of the Xcab map on her head—a relic of her time as one of Columbus’ Xcabbers—is symbolic of the man-technology-rationality alignment. The map on Belinda’s head is integral to leading the characters out of the Vurt-realm and into Manchester’s improved climate once Barleycorn has agreed to stop the Vurt-Pollen attack, as conveyed to the reader through Sibyl’s first-person account: “[t]he map of Manchester on my daughter’s head was turning into the map of the maze … I was reading the tangled passages as they filtered down through Belinda’s body” (338). Contained in this image of Belinda’s female body is both nature-reproduction-embodiment and culture-rationality-mind. She is not nature or culture, nor body or mind; rather she is nature and culture, body and mind. Belinda’s pregnant and mapped body goes some way toward imagining Plumwood’s notion of an affirmative identity that eschews radical ecofeminism’s inversion of dualisms:

[a] better route to subversion than that of poststructuralism would treat woman’s identity as an important if problematic tradition which requires critical reconstruction, a potential source of strength as well as a problem, and a ground of both continuity and difference with traditional ideals. Such a critical reconstruction can correct the distortions of western culture through the affirmation and empowerment of the areas of culture and life associated with the feminine and with nature, and hence continue the concerns of earlier feminism and ecological feminism in a modified form.

It is Belinda’s embodied map that provides the “new way” for the Vurt to exist in physical reality (344), in a way that is represented as potentially being able to support sustainable ecological conditions for both Manchester’s physical environment and its citizens.

127 Plumwood, Feminism and the Mastery of Nature, 62.
128 Ibid., 60.
129 Ibid., 64.
Zombies

One final point concerning the novel’s ecologically-oriented ethics needs to be addressed to flesh out my reading of the novel’s ecologically-oriented ethics: namely, the significance of Sibyl’s advocacy for her “zombie” son Jewel. Firstly, this is important because it is Sibyl’s advocacy for Jewel’s life that leads to the restoration of Manchester’s physical environment in the novel’s denouement. Sibyl pleads with Barleycorn and holds Persephone hostage in order to secure her son’s wellbeing. Incidentally, Jewel has become too sick because of the Vurt-pollen fever to return to Manchester with Sibyl (Barleycorn tells her that “[i]n reality he will die in two days’ time”) (337); however, Barleycorn agrees to cure him of his illness in his Vurt-underworld in exchange for Sibyl sparing Persephone from being “undream[t]” (334-7).

Secondly, Sibyl’s advocacy for Jewel’s welfare is important for the novel’s ecologically-oriented ethics because Jewel, and “zombies” generally, are constructed as radically nonhuman others (which I will discuss presently). Therefore, through these associations, Pollen, like Nymphomation, links caring for the interests of the radically nonhuman other with improved environmental conditions.

Pollen constructs “zombies” as radical nonhuman others who are socially marginalised. Their appearance is represented as the point of differentiation that marks them as other. “Zombies,” like those possessed of the Shadow, are the progeny of human-corpse reproduction (115-6). However, whereas female children are “very beautiful,” male children are horribly “ugly” (116):

[t]he authorities called the boy-children Non-Viable Lifeforms. Zombies, Ghosts, Half-alivers, these were their given names. This was my [Sibyl’s] Jewel. Their ugliness was distasteful to the Authorities; NVLs were banned from the cities. They would have to make their desperate half-life out in the bleak places, the moors, which they named Limbo after their plight. (116)

The “zombies” ugliness is described throughout the novel using vivid imagery that represents their form as totally un-human. For example, they have talons and greasy skin, they move by slithering and scratching, they make sounds by snarling and howling (69), and in the case of Jewel, his head is “mis-shapen” (88) and his growth is stunted at “two feet tall … one foot wide. Fully grown” (277). Non-“zombie” characters are depicted as presuming that “zombies” are devoid of human qualities: Belinda is shocked when she discovers that some “zombies” can speak and are not all “viscous” (73); Coyote repeats rumours that “zombies” kill and disfigure non-“zombies” with animal-like brutality—severing heads from bodies and removing victims’ teeth and
genitals (18); and Sibyl’s police partner, Officer “Zero” Clegg who is a human-dog hybrid, flatly denies them humanity at all: “[z]ombies aren’t human” (89).

Additionally, by naming the “zombies” “non-viable lifeforms” and expelling them from the city, the authorities institutionalise the opinion that “zombies” are not human, which legitimates their dehumanisation and discrimination by society at large. “Zombies” are situated at the lowest rung of the social hierarchy (31) and “to the cops they were classed as a nuisance more than anything, something they had to clean up, like litter on the municipal road” (37-8). The authorities also allowed some “zombies” to be put on display at the zoo:

[w]ith the discovery of Fecundity 10, even stranger, wilder creatures were born. Some of them too wild, too full of curious genes to be ignored. So they opened the zoo again, filling it with the children of Casanova. Non-viables. Voyeurs dreamed of it, entrepreneurs put money into it. Oh, the thrill of seeing a hideous Zombie up close, safe behind bars. (118)

In these ways, “zombies” are represented as radically nonhuman others against whom Pollen’s Mancunians discriminate openly and without guilt.

Within this context, Sibyl’s concern for Jewel’s welfare carries greater significance. While a mother protecting her child is consistent with cultural conventions, in Pollen’s fictional world, Sibyl’s child doubles as a “hideous ... monster, a half-dead creature” who she would have been culturally conditioned to revile, as do the other non-“zombie” characters (emphasis in original, 277). Nonetheless, it is because Jewel “came from my [Sibyl’s] insides” (277) and because “he had fought his way through Limbo to get back to me [Sibyl]” (125), that Sibyl is able to overcome her culturally ingrained prejudice against “zombies.” Upon Jewel’s return to Sibyl, she recognises his human-like capacity for desire: from his cot, Jewel looks up at Sibyl “full of longing. Jewel wanted nothing more than life. It was the one thing that nobody could give him. Not even I, his mother” (125). Moreover, this is the basis of her subtle championing for the rights of all “zombies” to be allowed to live, which the novel’s relays in a dialogue between Sibyl and Zero: in response to Zero’s comment that he had “one great urge to put this zombie down”—the “zombie” who he wrongly thinks murdered Coyote—Sibyl says, “[you] want to put zombies down? We used to do that to dogs. ... They’re [zombies] partly human” (89). Like Jazir’s somatic encounter with the nonhuman blurbflies in Nymphomation, it is Sibyl’s somatic encounters with her “zombie” son—her pregnancy and his return to her—that help her to perceive him as an entity possessed of agency and desires, who needs her to advocate for his rights because he is unable to do so himself. In turn, Sibyl’s advocacy for her son—a radically
nonhuman other—is the action that underpins environmental restoration. As such, Pollen's ecologically-oriented ethics suggests that empathy and compassion for the nonhuman other is the bedrock upon which improved environmental conditions can be founded.

**Summary**

In this chapter, I have examined Pollen's ecological dimension through the novel's depiction of eco-catastrophe as being caused by humans' stories and discourses. This has been a particularly productive lens through which to unpack its various evocations of ecological interconnectedness between the immaterial (story and discourse) and the physical (matter in the Mancunian environment) in terms of their mutual impact upon each other. This, in turn, has proved fruitful for pursuing ideas germane to ecosophy: namely, identifying the cultural and discursive factors that prevent humans from forestalling or defending themselves against ecological catastrophe, but also highlighting the potential for the complex interactions between multiple socio-physical components to lead to ways of knowing, being and acting that will enable improved ecological conditions.

In Section One of this chapter, I discussed the novel's paratexts, an epigraph and two prologues, as frames for the novel's ecological dimension. I considered how "John Barleycorn," the folksong that is quoted in the novel's epigraph, and "The Looking Glass Wars" prologue set up the relationship between humans and "nature" in terms of a dichotomy. Following Plumwood, I noted that dichotomies, unlike dualisms, are open to change and can be viewed as at least partially interconnected—representations consistent with the notion of ecological thinking. Throughout the novel, Pollen regularly sets up dichotomies that it subsequently destabilises, which makes this one of the techniques through which the novel highlights interconnectedness. I used the novel's second prologue, "Sibyl's Story," as a springboard from which to discuss its representation of posthumans as trans-corporeal subjects. I noted that this is a concept which highlights how human bodies are always-already sites of inter-species co-existence (that is, it emphasises how humans are interconnected with, rather than separated from, the ecosystem in which they exist).

In Section Two I focused upon the novel's construction of the Flower Map and the dodo beetle. I argued that the Flower Map conveys the notion that the stories humans tell about "reality" have the power to both shape it and destroy it through its representation of a Baudrillardian hyperreality as leading to eco-catastrophe. By contrast, I noted that the depiction and role of the dodo beetle as a marker of ecological
limits suggests that physical reality places limits upon the extent to which discursive constructions of reality can shape it. I argued that through these representations, the novel endorses the idea that dominant narratives must change to accommodate ecological limits, rather than the other way around, to minimise the suffering of human and nonhuman species.

In Section Three I considered how the novel’s critique of the discourse of technological efficiency is conveyed through its oppositional representation of Columbus’ Xcab Vurt-technology and Coyote’s black cab technology. I argued that the representation of Columbus’ Xcabs resonates with Borgmann’s description of a “device,” whereas the representation of Coyote’s black cab resonates with his description of a “focal object” and the function of a “focal practice.” The novel’s framing of Coyote and his black cab service as unequivocally “good,” and his representation as a figure marginalised within the novel’s Mancunian society, constructs the novel’s Mancunians as having uncritically adopted the efficiencies offered by Xcab’s “devices.” Such “devices” are constructed as having come to dominate the running of the city, which gives tremendous power to technocrats who know how to control them and leaves the Mancunians vulnerable to the technocrats’ self-interested whims, which bring about eco-catastrophe. Through highlighting these associations, I noted that the novel suggests the subtle, but profound, ways discourse impacts upon environmental conditions, through its propensity to blunt people’s critical agency and shape how they interact with each other and the physical environment. Because of this emphasis, I argued that my reading of the novel’s representation of technological efficiency engages with ecosophy’s descriptive arm.

In Section Four, I focused upon the way Pollen constructs myths as better than maps at engendering a way of knowing and relating to the nonhuman other that will lead to environmental restoration. Maps are aligned with positivistic science and constructed as emphasising rationality and a sense of detachment from and control over the novel’s version of physical reality. By contrast, at the novel’s climax, myths are constructed as a way of re-establishing a sense of connection between the novel’s characters and their physical environment because of their association with notions of femininity, motherhood, care and “nature.” However, in the novel’s denouement, maps and myths are shown to both help usher in a restored ecosystem, thereby suggesting that when framed within a different discourse (myth rather than technological efficiency), technologies can help foster, rather than destroy, habitable climates. Additionally, I noted that, as in Nymphomation, the catalyst for the novel’s eucatastrophe is tied to the protagonist advocating for the wellbeing of the radically nonhuman other. This suggests that the creation of habitable environments rests upon
the revaluation of the nonhuman. Thus, *Pollen*’s eco-catastrophe has provided a launch pad from which to consider how the novel suggests that the process of improving social and environmental conditions (in addition to technological and policy changes) requires value systems and entrenched philosophical concepts to be interrogated and modified.
Conclusion

[Bella Pagan:] What excites you about speculative fiction?

[Noon:] The genre’s ability to cross boundaries. To intermingle futuristic or alternative reality ideas with the everyday. To comment, to escape, to render visible the invisible (even if only for a moment or two), to build and map new worlds, to push beyond mainstream and middlebrow concerns in literature. Most of all, to explore ways in which language can not only reflect reality but also mutate and transform it.¹

In this thesis I have sought to demonstrate that the fictional worlds of *Nymphomation* and *Pollen* can mutate and transform readers’ understanding of reality, which in turn carries the possibility of mutating and transforming physical reality itself. However, this transformative potential does not reside wholly in the novels themselves; rather, it emerges through the complex engagements that attend the reader-text-environment assemblage. Being attentive to such complexities is what I have called an ecosophical reading practice; and it is such a reading practice that has shaped my understanding of these novels and their ecologically-oriented ethics.

These ecologically-oriented ethics can be concisely summarised in the following manner. (1) To help humans act in ways that are consistent with ecological limits, they should recognise the immaterial and the physical as being interconnected and mutually constitutive. The categories of the immaterial and the physical include Human (mind) and Nature (body/physical environment), and discourse/narrative and physical reality. (2) Discourses valorising profit and (scientific) control should be identified as drivers of environmental disaster. (3) As homogeneous discourses stifle radical ideas and values, discourses perpetuating heterogeneity should be embraced. Such ideas and values will underpin the emergence of technologies, policies and practices that work within ecological limits. (4) Humans should re-conceptualise their relationship to the nonhuman in terms of co-existence, rather than separateness and domination. These ecologically-oriented ethics represent the mutated and transformed understanding of reality that has emerged through the reader-text-environment assemblage of me (the reader), *Nymphomation* and *Pollen* (the texts), and the socio-physical realities of the twenty-first century.

In Chapters One and Two, I discussed how these ecologically-oriented ethics rest upon *Nymphomation's* and *Pollen's* textual representations and literary form. In Chapter One I discussed *Nymphomation*, beginning my analysis by focusing upon the figure of the Hackle Maze. I argued that its construction functions to highlight the

¹ Pagan, “Jeff Noon and Lauren Beukes: The Five Question Interview.”
immaterial and the physical of the novel’s fictional reality as interconnected and in a relation of mutual influence. Secondly, I discussed the blurbflies, suggesting that through their representation the novel critiques the discourses of post-industrial capitalism and neoliberalism as drivers of social and environmental decline. Thirdly, I considered Yawndale Monstermarket and “dream to win” as representing “solutions” to the problems caused by the discourse of post-industrial capitalism. I argued that Yawndale Monstermarket represented an inversion of its dominant values, whereas “dream to win” dismantled its homogeneity, replacing it with an ecosophical discourse that privileges heterogeneity. Fourthly, I analysed the character Jazir, foregrounding the ways his construction conveys eco-subjectivity as involving an ontological transformation and an emphasis upon caring for the nonhuman other.

In Chapter Two I interrogated *Pollen* by focusing upon its epigraph and two prologues, as well as its representation of the Flower Map, Black Cab-Xcabs and Maps-Myths. I highlighted how the epigraph and two prologues set up the novel’s characters, themes and technique of constructing dichotomies in order to dismantle them. I discussed the Flower Map in terms of its resonance with a Baudrillardian hyperreality, arguing that its representation suggests, firstly, that the immaterial and the physical are inextricably interconnected, and secondly, that discursive models of reality must accommodate the ecological limits of physical reality for organic species to survive. I considered the construction of the Black Cab and Xcabs in terms of the novel’s representation of the discourse of technological efficiency. I argued that this discourse is depicted as leaving “the masses” helpless to defend themselves against the machinations of the novel’s antagonists—technocrats who control the technologically efficient devices that the Mancunians have uncritically adopted. Finally, I claimed *Pollen* suggests that myths (as opposed to positivistic science) have the power to reconnect humans to their physical environment in a way that will renew habitable climates and allow subjects to care for the radically nonhuman other.

**Ingress**

In the Introduction I noted that the ecosophical reading practice attending this thesis has resulted in a change in my consumer behaviour. That is, in consonance with Jamieson’s notion of “green virtues,” I am now much more mindful of what, how and when I buy goods. However, not only does this ecosophical reading practice influence my consumer habits, it also influences how I read other, non-literary texts. As Guattari

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contends, ecosophy is not the “sole province of literature and the arts,” but rather can be found “equally at work in everyday life, in social life at every level, and whenever the constitution of an existential Territory is in question.” In the spirit of locating these a-signifying existential refrains at work in everyday life, I will conclude this thesis with a discussion of Ingress, a massively multiplayer, role-playing, geo-location game, designed for use on mobile devices such as smartphones, and developed by John Hanke of Niantic Labs (a subdivision of Google). Despite the game’s thorough implication in capitalist market economies—which perpetuate values and practices that contribute to environmental degradation—I will argue that the specificities of Ingress’ narrative and form nonetheless open up possibilities for ecosophical engagement. Through this analysis of Ingress, I will draw out the “value,” applicability and adaptability of the ecosophical reading practice demonstrated in this thesis to cultural texts beyond the written word/novel.

I will begin by offering a brief description of Ingress’ narrative and form, which have clear resonances with ideas and themes explored in Pollen and Nymphomation. When players first download the Ingress application onto their mobile device, they are presented with the following science fiction scenario: “[y]ou have downloaded what you believe to be a game, but it is not. Something is very wrong. There is an energy of unknown origin and intent seeping into our world. It is known as Exotic Matter.” Players are then prompted to join one of two teams: the Enlightened, who try to help exotic matter’s entry into our world; or the Resistance, who try to prevent it. Players help or hinder exotic matter’s migration into reality by claiming territory for their team, which they do by walking, biking or driving around their local area to “hack portals”—in the parlance of the game.

While players move around, they see the Ingress map represented on the screen of their mobile device. The map is a modified Google Map, overlaid with various animations which update in real time. (It is necessary for players to have a mobile device that has GPS and internet connectivity to participate.) Portals—the places to which players must go—are represented by a flame-like animation on the screen, and exotic matter is represented by blue pixels. In the game’s narrative, portals are areas where exotic matter is particularly concentrated; that is, portals are the gates allowing exotic matter to seep “into our world.” In reality, portals are landmarks, such as public works of art or buildings with architectural or historical significance. They are sites

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3 Guattari, The Three Ecologies, 46.
5 Ibid.
that have been photographed by players and submitted to the game’s administrators who then decide whether or not they are suitable to become portals. When players are within forty-five metres of a portal they have several options: they can “hack” it to receive virtual tools that let them do things in the game, attack it if it is owned by the opposing team, claim it for their own team by laying “resonators,” and link it to other portals to claim territory.

Players can do none of these things if they do not physically move around their cities, suburbs and rural spaces, or if they do not possess a functioning mobile-computer device. Hence, while Ingress requires players to go outside, encourages them to inhabit a variety of physical environments, and provides them with greater opportunities to interact with these physical spaces, these interactions will necessarily be mediated by the screen of their mobile device.

Beginning with the ways Ingress is implicated in capitalist market economies, the game’s real-time geo-location tracking represents a virtual technology of surveillance. It has been speculated that the geo-location data collected from players as they walk or bike from portal to portal will be used to “make Google Maps pedestrian directions by far the best available.” In exchange for “free” access to Ingress, players help Google to maintain its monopoly over the online mapping market. Insofar as Ingress and Google are closely affiliated, this point has an additional resonance with my reading of Pollen, especially in regards to my analysis of the novel as a critique of the discourse of technological efficiency. One of the reasons Google Maps dominates the online-mapping market—which features several other alternative products, including OpenStreetMap, an open source option—is because of its convenience: Google Maps offers a “clear and responsive user interface, quick-loading maps and a customer-oriented service facilitating map display on any Web page.” That is, users have adopted Google Maps because it provides a more efficient service than, for example, OpenStreetMap. Google is a corporation, unlike OpenStreetMap, so it owns the metadata generated by its users. This has raised concerns about the “risk of a rise in [sic] geographic data falling into Google’s hands.” Moreover, as a corporation, Google is oriented towards generating profit. Therefore, unlike OpenStreetMap, in exchange for

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8 Ibid.
9 Ibid.
offering users “free” access to its mapping service, Google collects the metadata users generate and sells the information to third parties such as advertisers. Adopting the efficient technology of Google Maps comes at the “cost” of a largely unrecognised compromise—handing over knowledge, power and control to a corporation, which, while it “maintains an innocent image and pretends to be a friend of the citizens[, in] actuality, ... is a capitalist monopoly that makes huge profits.” In other words, for the sake of technological efficiency, users of Google Maps and players of Ingress give tremendous amounts of information and power to private entities; these entities are far less concerned with being a friend of the citizen than turning a profit.

Considering Ingress in light of my ecosophical analysis of Nymphomation and Pollen, an interesting connection emerges between these texts. Ingress' exotic matter, Pollen's Vurt-pollen spores and Nymphomation's “play to win” order-words all represent virtual entities seeping into reality. Here I wish to consider exotic matter in terms of my reading of the “play to win” order-words. Exotic matter is characterised as being “both energy and matter” and an entity that can “shape human thought.” Interestingly, the term “ingress” refers to “signal leakage” in coaxial cables—the kind of cable used to transmit high-frequency television signals. Sometimes electromagnetic fields inadvertently pass through the shield of coaxial cables, introducing “noise” into the transmission and leading to the distortion of the image on the screen. Just as electromagnetic fields distort televised images, exotic matter, via the information technology interface, distorts how humans “see” reality. Herein lies the similarity between exotic matter and the blurbflies' “play to win” order-words: like exotic

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11 Daniel Ichiah, translated by and quoted in, ibid., 913.
12 I see understanding exotic matter from this perspective as itself an ecosophical gesture. As noted in the Introduction, my consideration of Nymphomation and Pollen through the lenses of ecocriticism and ecosophy—a choice of perspective which was informed by the prevalence of environmental discourses in the public arena and the increasing regularity of “strange” weather events—has been integral to the emergence of my ecological awareness and commitment to embodying the green virtue of mindfulness. That is, undertaking the close reading of Nymphomation and Pollen presented in this thesis has resulted in the emergence of an ecosophic object. As also noted in the Introduction, the ecosophic object is an evolutive process: the concepts and practices that depart from the norm, which the a-signifying ruptures that attend the ecosophic make available, contribute to the creation of more concepts and practices that are even further removed from post-industrial capitalism’s systems of value (since they emerged within contexts that had already begun to depart from it). Within this framework, my reading of Nymphomation and Pollen can be seen as the beginning of an evolutive ecosophic process that has made available the possibility of thinking about other cultural texts in ways that are increasingly more detached from governing socio-economic norms. This evolutive process become explicit in moments when I see connections between the ideas and themes explored in Nymphomation and Pollen and other cultural texts like Ingress.
13 Niantic Labs, “Ingress.”
matter/ingress, the blurbflies’ “play to win” order-words are represented as capable of distorting the way the novel’s Mancunian “masses” understand their “reality.”

Pursuing this consonance a little further, Ingress, like the blurbflies’ “play to win” order-words, can be seen as naturalising the values and practices of post-industrial capitalism. Indeed, Ingress is thoroughly ensconced in economic markets that it does not (and presumably will not) actively encourage its players to critically engage with. For example, Hanke has noted that Niantic is pursuing an “advertising model” that will allow players to continue to “freely” access the application once it exits the beta version.14 This might take the form of explicit in-game advertising, or more subtle forms of advertising like strategic “portal placement”—what I suggest could be the game’s equivalent of television’s product placement—which would see companies buy the right to have portals placed by their businesses to drive customer traffic. Additionally, as the game requires the use of a mobile device, it encourages players to buy ever more sophisticated and powerful devices and peripheral appliances (such as battery packs) to help them play the game more competitively. In ways such as these, the game can be seen as reproducing consumerism and materialism, practices which underpin the cycle of mass-production, mass-consumption and mass-waste that attends the discourse of post-industrial capitalism. Therefore, Pollen’s and Nymphomation’s critique of homogenous discourses—as inculcating passive acceptance of governing norms—can be seen as manifesting in Ingress.

Nonetheless, following Guattari’s call to locate a-signifying ruptures at work in everyday life, I will offer an alternative understanding of Ingress’ narrative and form that focuses upon the ways the game also invites ecosophical engagements. In doing so, I am making a deliberate attempt to provide a counter-narrative to the Frankfurt School-style critique emphasised above, which seeks to explain how capitalism reproduces and expands its reach. As I have maintained in this thesis, narrative and discourse inform how we interact with the world, creating a closed-loop (self-reinforcing) feedback system. I suggest, in consonance with Guattari, that one way to modify (but not control) the operation of complex socio-physical feedback systems is not only to explain how existing discursive systems are oppressive, but also to identify where catalysts for a-signifying ruptures can be found and examine what opportunities for change they offer. This position couples the notion that insights into oppressive discursive systems underpin critical agency with the glimmer of hope that attends a eucatastrophe’s narrative: “in the face of much evidence, ... [eucatastrophe denies]

universal final defeat.” Rather than constituting mere wishful thinking, I contend that telling such critical, but positive, stories will help to create the conditions for an open-loop (mutating) system to emerge, one that does depart from the environmentally and socially destructive norms of post-industrial capitalism.

Returning to exotic matter as a narrative element offers one point of departure in this regard. Two aspects of the game narrative are salient here. Firstly, as game theorists Hua Qin, Patrick Pei-Luen Rau, and Gavriel Salvendy note: “[t]he aim of computer game narrative is not only to tell something to the players but also to provide an environment for play.” Secondly, as Ingress is a role-playing game, players are encouraged to immerse themselves in the fictional world of the game’s narrative: gamers play the role of agents, working on behalf of either the Enlightened or the Resistance to enable or disable exotic matter from entering reality. Given that Ingress’ environment of play is both virtual (that is, digitally represented on a screen) and physical (that is, associated with actual landmarks), the game’s narrative encourages players to “see” exotic matter as a real aspect of their physical, everyday environment, and not just as pixels represented on a screen. As one player notes: “[Ingress] has a very cyberpunk feel to it. Walking/biking around a large metropolis with a tablet in tote, hacking portals … I’m living my favourite 90’s sci-fi books.” For this player, the virtual space of the cyberpunk novel and the virtual space of the Ingress game narrative converge in the player’s experience of reality. The virtual and the physical co-exist and interact.

Ingress’ narrative thus draws attention to how the “virtual” space of the novel or the simulated space of the video game is not something enjoyed only in the living room—left behind when the book is closed or the console is turned off and the house exited. Instead, Ingress encourages players to reflect on the ways they carry “virtual” narratives with them in their experience of place. On the one hand, this can be seen as reinstating players’ sense of separation and alienation from the physical spaces they inhabit. It reinforces the notion that humans’ relation to physical reality is always partly mediated by information (including narrative and language). In Ingress, this is particularly pronounced by the presence of the mediating screen—the screen of the mobile device—that places a virtual space between players and their physical environment. On the other hand, the insight that reality is always partly mediated by narrative, language and technology can have emancipatory power. As noted in Chapter

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15 Tolkien, Tolkien on Fairy-Stories, 75.
One, critical theorists argue that identifying information and language as involved in the process of ideological legitimation empowers individuals to resist and creatively intervene in such processes. Ingress' narrative doesn’t engage directly with the notion of ideological legitimation; however, insofar as it encourages players to engage in role play, and insofar as it complicates easy distinctions between virtuality and physicality, it is suggestive of this cognitive direction.

The form of the game also opens up possibilities for players to engage with and think about the physical places they inhabit in ways that can bend and break the dominant frame of the market. The narrative element of exotic matter is also central to this point. When playing the game, players’ movements are guided by the placement of exotic matter—to play the game, they must go to places where the exotic matter is. As one player notes: “I now have memorised the locations of every post office, library, fire station and piece of art within a 50km radius of my house.” Following exotic matter and chasing portals takes players to places to which they might not otherwise venture and to “see” aspects of their lived space they might not otherwise notice. Additionally, because players are awarded “badges” for submitting sites to become portals, they tend to always be on the lookout for potential places, signs, monuments and artworks. Hence, even when they are not playing the game, the game’s incentive structure encourages players to “take notice” of the world around them.

I will bring these two points together—exotic matter as directing how players move through a place, and players inclination to scout out interesting “things” to be portals—both in terms of Michel de Certeau’s “Walking in the City” and by reference to my experience of playing the game. In this way, I will connect these ideas to ecosophy by considering some of the creative and unexpected encounters with organic species and outdoor places playing Ingress can produce. Part of de Certeau’s project in “Walking in the City” considers how walking as an embodied practice resists the best efforts of cartography and urban and city planners to administer and control the ways people engage with their lived environments:

> [t]he long poem of walking manipulates spatial organisation, no matter how panoptic they may be: it is neither foreign to them (it can take place only within them) nor in conformity with them (it does not receive its identity from them). It creates shadows and ambiguities within them.

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18 Foster, “Virtuality,” 318.
19 Lui, “The Demographics of Ingress.”
In other words, while sealed roads and paths provide officially endorsed passageways through places, they only represent some of the possible ways of negotiating and engaging with the space that walkers, if they wish, can choose to depart from.

On this point I will consider an example from my own Ingress experience and discuss two ways playing the game has encouraged me to engage with my physical environment in different and creative ways. I live in Western Australia next to Lake Joondalup, an important wetland habitat that is abundant in plant and wild life. As part of the local council’s attempts to maintain and conserve the lake environment, it has installed a series of bollards along the shore of the lake with information about the plants, wildlife and water quality. Despite regularly walking along the footpath that runs around the lake, prior to playing Ingress I had never approached one of these bollards, each of which is set off the footpath by a few metres. However, given the possibility of the bollard being a portal, after signing up to the game, I promptly photographed and submitted several as potential portals. Having journeyed off the footpath to the bollard, I read the information while I was there: I have since become a casual expert and advocate for oblong tortoises, a local native species. This is especially the case during egg-laying season, when I advise other walkers to admire them from a distance and not pick them up and turn them around.

Less practically, but more creatively, playing Ingress has inspired me to begin a long-term time-lapse photographic series of the lake. During Western Australia’s summer the lake’s water evaporates, revealing a dry, and in places parched, sandbank bed—a striking visual reminder, it seems to me, of the need to “use water wisely” in Western Australia. The part Ingress plays in this series is that the vantage point from which I take my daily shot is a portal. Once I have completed the time-lapse series, I hope to share it with other members of the Ingress community—who stay connected via Google’s social networking platform, G+—and ask them to undertake a similar project from a portal in their local haunt. In terms of an ecological outlook, time-lapse photography is a technique that makes incremental changes that occur over long periods of time perceptible, and so is consistent with the notion of ecological thinking.

As an outdoor game that problematises distinctions between the virtual and the physical in its narrative backstory, Ingress is a driving component in an assemblage that offers opportunities to engage with socio-physical reality in ways that begin to

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22 For a discussion of time-lapse photography as well-suited to ecological thinking see Morton, The Ecological Thought, 43-5.
depart from the discourse of post-industrial capitalism within which the game itself is situated. I have endeavoured in my analyses of *Ingress*, *Nymphomation* and *Pollen* to seek out and tell the story of such positive possibilities. Within this ecosophical reading practice lies the potential to transform and mutate reality, countering the cultural hegemony of post-industrial capitalism and hence combatting its negative effects on the physical environment.


———. *Channel Sk1n*. Jeff Noon, 2012.


