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Frankenstein and Ecocriticism

Biology, Arctic ice, animal flesh, Alpine landscapes, vegetarianism, life, death, undeath: you would have thought that with juicy topics such as these, there would be hundreds of studies specifically devoted to ecological readings of Mary Shelley's novel. Yet this is not the case. If you search on a database such as ABELL (the Annual Bibliography of English Language and English Literature), you will find countless texts on *Frankenstein* – there are more than 2,500 entries for items published in the last twenty years. But only a very few of those are explicitly about ecology.¹ Indeed, only about one per cent of the 2,500 items on ABELL explicitly pertain to ecology, and many of those only tangentially. The first question we have to ask, then, is what is it about *Frankenstein* that *does not* lend itself to explicitly ecological treatment?

There seem to be two main answers. The first is about the impact of the novel; the second is about its internal dynamics. First of all, to say that the novel has been widely received, adapted, disseminated and otherwise absorbed is the slimmest of understatements. It would be hard to name another work of literature that has had the impact of *Frankenstein* since its first publication in 1818. The very 'universality' of this impact – the way in which the novel has become something like what Richard Dawkins calls a *meme* – a virus-like string of code that can easily be reproduced and circulated – mitigates against the specific, explicit study. Everyone wants to talk about *Frankenstein* – so no one talks directly about *Frankenstein*. If there ever were a candidate for a modern myth, *Frankenstein* would be it – its subtitle (*The Modern Prometheus*) throws down that gauntlet directly. Myths might be defined in part as stories whose original format is irrelevant: Hesoid, or Ovid, or Virgil do not have a monopoly on the myths they are telling. Myths are precisely stories that exceed their authors in a profound way. You do not need to quote Ovid to talk about Arachne. You do not need to read the *Theogony* to talk about Prometheus. You do not need to

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cite *Frankenstein* to refer to 'Frankenfoods', which is how many began to talk about genetically modified crops in the 1990s.²

The pervasiveness of the Frankenstein myth affects art itself. Philip K. Dick and subsequently Ridley Scott did not need to refer directly to Mary Shelley's novel in *Do Androids Dream of Electric Sheep?* (1968) and Scott's film adaptation, *Blade Runner* (1982). Yet both are profoundly allusive meditations on the Promethean theme – the human use of 'technology' to make life – and the theme of what it means to be alive, let alone the theme of what it means to be a person. With his plangent Blake quotations, his murderousness and aesthetic awe ('I've... *seen* things you people wouldn't believe...'), Roy the replicant is a twentieth-century upgrade of the creature.

When it comes to readings of *Frankenstein* that relate it to ecological themes, one might argue that the novel is a victim of its very success.

The ways Dick and Scott adapt *Frankenstein* are deeply about how the novel explores issues related to ecology, at the beginning of the Western intellectual disciplinary period of *biology* (a term coined both in Germany and in England, roughly simultaneously, about 1800). Yet another reason why ecocriticism has not done much with *Frankenstein* has to do with the *ways in which* ecological issues are presented and explored. *Frankenstein* is hardly comforting if one is interested in promulgating a traditional, normative concept of Nature (with a capital N). And the novel sits awkwardly in relation to the fields of ecology and what is now called critical animal studies. Ecology has to do with populations, systems, species – things that seem vast and abstract to many. Animal studies has to do with animal rights – how one disposes oneself towards this particular life form, right here. For this reason, there are clashes between literary criticism inflected by animal studies and criticism inflected by ecology. *Frankenstein* does not necessarily make one think about ecology, unless one is a rather odd ecological thinker (such as myself).

The novel might make one consider how we treat other life forms; about what constitutes a human as opposed to a non-human – urgently, it meditates on the uncanniness of the nearly-or-not-quite-human; the novel explicitly addresses topics in vegetarianism. None of these has an easy-to-identify, traditional 'ecological' resonance, especially if one believes that ecology is about studying and preserving something definitely non-human called Nature. The same applies when we consider the phenomenological chemicals of *Frankenstein* – the emotions and states of mind and flavours of thought in which it deals. Melancholy, horror, disgust and searing pain – and refreshing, cold, liberating reason and its sadistic shadow side – are the novel's phenomenological landscape, not the awe, wonder, reverence – and

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warm, familiar, unreflective or 'pre-theoretical' cosiness and its politically oppressive shadow side. Yet the latter are the cognitive chemicals that ecocriticism has often been most keen to explore and reproduce, at least in its early days.

Frankenstein seems to have been designed to slip cheekily out of the holes in standard ecocritical sieves. So we confront a paradox. In *Frankenstein* we encounter a novel whose ecological resonance is so obvious that ironically hardly anyone tackles it directly; and a novel, the very same one, whose ecological resonance is so uncanny in relation to standard beliefs about Nature that hardly anyone tackles it directly.

Yet we inhabit an era in which the cognitive chemicals of melancholy, disgust and horror are central to how we are beginning to react to the ecological era that began shortly before Mary Shelley was born, an era we now call the *Anthropocene*, marked by decisive human intervention in geophysical systems, a whole new geological period with a concomitant mass extinction of life forms, only the sixth one to have occurred on this planet. A consideration of the ways in which we might think in a critical ecological way about *Frankenstein* seems especially urgent.

Frankenstein and Nature

There are many kinds of ecological literary criticism, but this was not always the case. When it first developed in the early 1990s, ecocriticism had far more specific and unique qualities: they could be summed up as a reaction against the constructionism of the kinds of thought one encounters in (now traditional) theory class, and a counter-assertion of an unconstructed Nature. (In this chapter I shall be capitalizing the term Nature to draw attention to this specific concept – which should of course be distinguished from actually existing mountains and foxes.) Then ecocriticism fanned out like an alluvial flow of water, opening up and significantly diverging from the starting position. In a way, one might say that however surprising early ecocriticism was – it was a surprisingly conservative (small c) rearguard action against theory – it fit the same mould as the very theory it was opposing, insofar as it relied on a very familiar dichotomy between humans and Nature, just slightly reweighted. Whereas undergraduates had become used to pointing out how ideas and institutions and all kinds of things we take for granted were social constructs, ecocriticism wanted to show that many things in our world are not constructed.

But both these positions are anthropocentric: they assert that there is a sharp difference between humans and the non-human. For good or bad, it is humans who do the constructing, and everything else that gets to be

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constructed. This position is not at all that different from the Cartesian dualism in which there is a (human) intellect and soul opposed to a (non-human) universe of matter. And it is hard to distinguish from the Kantian version of this idea, namely that things exist, but they are not 'real' until some (human) adjudicator – in Kant's case this is the transcendental subject, but later versions included Spirit (Hegel), human economic relations (Marx) and will (Nietzsche) or Dasein (Heidegger's 'being-there') – correlates with things or observes them or works with them in some way.

If ecological criticism is about critiquing and transcending anthropocentrism, it needs to get past this mode, the mode in which there is construction, and something that is constructed, and a sharp difference between those, usually in just one place in the universe – the difference between human beings and everything else. And in a way, this undoing of the sharp difference is precisely what many Romantic-period writers were up to. It was the previous period of art and culture, commonly known as the age of sensibility, which valued Nature as opposed to (human) society: just think of Jean-Jacques Rousseau and his rigid dividing lines between the artificial and the natural. Or consider the sentimental mourning for the destruction of indigenous cultures that we find in the poetry of the 'Celtic twilight'. Romantic-period authors such as Wordsworth and Shelley strove to confuse and undermine the difference between Nature and the human, the object and the subject, history and natural history, not necessarily by blowing it up completely, but by exploring its ironies and paradoxes. And William Blake found the concept Nature downright politically oppressive.

Nature is . . . natural: it sounds like a truism but we should think about this a little. It means that the concept Nature is *normative*, which is a philosophical term for something that establishes differences between the normal and the abnormal, often with ethical overtones. For something to be natural, it must be not unnatural. The concept *natural* implies that some things are not. If everything were natural, if everything was Nature, then the concept would lose all its teeth. Nature cannot cover everything – although some philosophers such as Spinoza use the term that way, they therefore bar themselves (whether they like it or not) from using the term Nature in the way early ecocriticism did: to draw a difference between what is natural (for instance, non-theory-influenced readings of literary texts) and what is not.

Nature is defined as 'not unnatural'. So what happens when someone writes a novel about confusing the difference between humans and non-humans, and between the natural and the unnatural? What happens, in other words, when someone writes about something *monstrous*: something that is not only 'natural' in the sense that it is non-human, but also 'unnatural'

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in the sense that it defies expectations about what nature is, that it has been manufactured by a human, and so on? What happens when Shelley writes *Frankenstein*?

Frankenstein is in a way a deconstructive work of art, because it does not *get rid of* categories. Instead, it tests these categories to breaking point so that they start to speak their paradoxes and absurdities, absurdities that themselves might be seen as monstrous. Perhaps the very idea that there is a Nature and that this means 'not monstrous' is precisely the monstrous idea, responsible for all kinds of phenomena such as racism or homophobia. Perhaps trying to establish rigid and thin boundaries between Nature and non-Nature is the monstrous act – or perhaps trying to blow them up completely is monstrous, as when we reduce things to piles of atoms or other substances taken to be 'more real' than minds or pandas, eliminating the weird gaps between things and between concepts, breaking them down into something easier to manipulate in thought or in deed.

Moreover, as a Gothic horror novel, *Frankenstein* operates in a region slightly to the side of mainstream high Romantic art, shadowing the latter with something like a weird, uncanny double. This doubling is also deconstructive, in this case of official Romanticism. Imagine, for instance, a literal version of a Romantic poem – an 'organic' artwork with a life of its own – imagine it as a physical body that gets up and walks out of its creator's house to find its way in the world, whether its creator likes it or not. This would be not a bad description of *Frankenstein*'s creature, who drastically threatens his creator simply by being autonomous, let alone murderous.

It follows from this argument – *Frankenstein* is a work that questions and undermines all kinds of differences between categories, not by completely eliminating them, but by *multiplying differences* – that it might be possible to produce a wide variety of different sorts of ecocritical readings of Mary Shelley's novel. That *Frankenstein* might spawn all kinds of 'hideous progeny' in the way of variant readings – and we know from Darwin that variance and monstrosity are very difficult to distinguish – would also explain why it was almost completely neglected in what is now known as first-wave ecocriticism.

The cyborg, the spectre, the uncanny double, the abject animated pile of flesh endowed with a razor-sharp reason and poignant emotion: none of these beings seem to fit within a paradigm that is about Nature versus the human, but all could encapsulate the creature in some way. If, however, we drop the concept Nature – has it ever truly coincided with ecological and evolutionary reality? – we find that issues concerning abjection and spectral beings whose ontological status is uncertain and uncanny, because of the fuzzy boundaries between the human and the non-human, between life and

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non-life, between organic and inorganic, and between conscious being and android, are precisely what ecological and evolutionary science begin to point out. *Frankenstein* is ideally suited to an ecological criticism without Nature.

Environmentalism

What would an ecocriticism without Nature look like? For a start, it might begin to investigate how *Frankenstein* allows for – or does not allow for – a sense of ‘being in’. We might give a name to this quality: environmentalism. What kind of surroundings does *Frankenstein* offer, and what happens in them? What affordances do the worlds of the novel offer? Are the novel’s surroundings simply a backdrop for human projects, or is there some sense that there are other life forms, other entities whose ‘worlds’ might overlap with that of humans, or not?³ What is included, and what is excluded?

We might begin by noting that the novel takes the form of three nested sets of narratives. Evidently each narrative takes place ‘in’ certain specific domains: the Arctic, Geneva, university, lab, forest, cottage. All, that is, except for the ultimate frame. If we think that environmentalism has to do with specific ‘settings’, we have seriously crippled the concept of environmentalism. This just reinvents the wheel of ‘characters’ (and we have pre-formatted concepts about what a ‘character’ is) living ‘in’ a particular ‘setting’ (about which we also have preconceptions as to what those mean). In the end, such an analysis will be circular, as it never questions its initial assumptions. Environmentalism is a rare beast one needs to sneak up on.

Let us instead proceed more carefully. The creature’s narrative is ‘in’ Frankenstein’s, and in turn Frankenstein’s is ‘in’ Walton’s. And in turn again, this set of sets is being held in the hands of Walton’s addressee, Margaret Saville. This ‘top level’ of the narrative is significantly vague: are we in a parlour, or a study, or a garden, or are the bundled letters being read in a coach? The lack of a setting induces anxiety. Anxiety causes us to fill in the surroundings – though they are vague, they are vivid. They are *our* surroundings, because Shelley spells out no specific difference between where we are reading and where Mrs Saville is reading. We get the uncanny feeling of *being* Mrs Saville – and of not quite being her, of holding Walton’s letters in our own hands – or not. Maybe they are just sitting on a desk. Maybe some have not even arrived.⁴

This kind of uncertainty is in fact a default form of environmentalism – the feeling of being in an environment boils down to being uncertain as to whether you are in one. It is a common feeling to wonder whether we have yet entered the age of global warming. To the extent that we are unsure, we

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have entered this age. We are preoccupied with it – ‘in’ in the non-trivial sense, not as a pin on a Cartesian grid, not as a point in abstract Newtonian space, but ‘in’ as in ‘into it’ – we care. We have anxiety because we care.

In outlining how Mrs Saville’s vague environment provides us with a default environmentality that evokes feelings of anxiety, enabled by a caring ‘into it’-ness, I am simply guiding you through the main arguments in Division 1 of Martin Heidegger’s masterpiece, *Being and Time* (1927).⁵ It is Heidegger who enables us to think about what it means to inhabit a world in a sense that transcends simply being-located-at point *x* at time *y*. If you think about it, that kind of argument, however picturesquely dressed up, begs the question: ‘What is an environment?’ ‘It’s a space that you are in at a certain point.’ ‘Great. And what is a certain point?’ ‘It’s a location in an environment.’ ‘And what is an environment?’ (And so on.) It is a shame that we do not read enough Heidegger, mostly because he unfortunately went on to argue that Germans are the best at inhabiting worlds, an argument that is wrong by his very own logic – so we can happily ignore that part. Ecological awareness precisely means inhabiting a vague number of such worlds. Where and when are you right now? In a college room in the early twenty-first century? In the Anthropocene? In the Western world? In the biosphere? In the time of oxygen, that disastrous (for anaerobic bacteria) pollutant that flooded the biosphere several billion years ago, enabling life forms like us to evolve? We cannot point to where and when we are exactly; yet we are not living in the Renaissance and we are not on Mars.

Heidegger’s whole argument is devoted to showing how *being is not presence*. An environment is precisely something one is unable to point to, yet is strangely there nonetheless. When you look for the environment, you find things that are in it: a hammer, a smartphone, some rusty nails, a shed, a spider, some grass, a tree. So there is a big difference between environmentality and Nature. Nature is definitely something you *can* point to: it is ‘over yonder’ in the mountains, in my DNA, under the pavement. Nature is what is constantly present despite . . . (fill in the blank). But constant presence is just what environmentality is not.

Environmentality is a manifold of things and certain ways of experiencing or relating to those things. Environmentality is made of caring, of *being-into*. Being-into involves being weirdly smeared out: Heidegger calls this smearing *ekstasis*, which should not be confused with states of bliss. *Ekstasis* means standing-outside-oneself, self-transcending. We are reaching for the smartphone in-order-to . . . We look out of the shed window with-a-view-to . . . Another word for this smearing is *time*, again not in the trivial objectified sense of LED lights flashing 8:30 on an old alarm clock, or the vibrations of an atom, or pieces of metal going around a circular piece of

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metal: those are ways of measuring time, and those ways depend upon a sense of time, a *temporality* that is already in place, because we are into certain projects. We want to commemorate the English Revolutionary dead, so we make a tomb that Victor Frankenstein visits in his journey up the Thames – that tomb is a haunting place of half-forgotten revolutionary projects. We need to buy and sell shares as fast as possible, so we have clocks that time transactions in nanoseconds. Time is not an objectified box, but is precisely this smearing, the way a thing does not coincide with what appears to be present – there is a not-yet quality about existing; most Western philosophy restricts to the human realm, although there is no particularly good reason for that. Environmentality shimmers.

Mrs Saville gets to hold at least three kinds of spacetime in her hands, three modes of being-into: Walton's, Frankenstein's, the creature's. And who knows whether she is even reading them, or whether she is reading them in sequence? Mrs Saville stress tests the you-can-point-to-it idea of what an environment is, to the point where it collapses: surely this is an important feature of *Frankenstein*, overlooked as it often is. The many environmental modes of the novel overlap and fail to overlap in all kinds of fascinating ways. Sometimes we glimpse something happening from the environmentality of Frankenstein, only to witness it differently from the environmentality of the creature. This is not just about 'point of view', because that concept depends upon environmentality, not the other way around. 'Point of view' is a way of objectifying environmentality into a concept of a physically located being with a particular attitude. But beings such as humans with attitudes such as contempt for their bioengineered creations are *produced* by certain kinds of environmentality, certain kinds of care. A different world would have produced a different Frankenstein. Frankenstein himself wonders what he would have been like if he had come of age in a different era, which again does not mean a point on a timeline but a set of projects and care formats.⁶

The minimalist vagueness of Mrs Saville's environmentality is precisely the point. *How are we to care for the story?* This question is analogous to *How is Walton to care for Frankenstein?* and more importantly, *How is Victor Frankenstein to care for the creature?* The very blankness of the environmentality awakens our anxiety, which serves two functions. First, the anxiety we lend to the text blows up the story into something like three-dimensional realism, like air in a balloon. This is a common technique in naturalist realism, which employs free indirect speech to just this end – we do not know whether the speech belongs to the narrator or to a character, and thus our slight anxiety blows air into the character in question, resulting in what some call *focalization*, where we feel as if we are telepathically inside

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a character's head. In this case, the epistolary and first-person-narrative driven novel admits of no substantial focalization – instead Shelley relies on the technique of dissolving the aesthetic screen, as if we were holding the letters in our own hands. In each case, the sense of reality depends upon a sense of *ambiguity*, not of something definite we can point to. And in turn this reminds us of what Heidegger says about being: being is not presence.

Secondly, the vague environmentality opens up the central problem of the novel: what are we to care for, for whom are we to care, what is care, how do we care, why care, who cares? Perhaps the pristine blankness of the Arctic landscape later in *Frankenstein's* narrative is an objective correlative for the blankness available at the form level in the guise of Mrs Saville and whatever space she finds herself in. The last lines of the novel are about being 'lost in darkness and distance' (p. 191), the creature blending into the Arctic just as words are lost as we finish reading and encounter a blankness at the end of a text, and start to forget. Perhaps the characters all care in all the wrong ways – too aggressively, too melancholically, too violently. Heidegger argues that even indifference is a form of care.⁷ Perhaps the very indifference of Mrs Saville is pointing to a way to care for humans and non-humans in a less violent way – simply allowing them to exist, like pieces of paper in your hand, like a story you might appreciate – or not – for no reason.⁸

Perhaps care is fragile and contingent and uncertain, and trying to delete this fragility – just think of a thousand pieces of heavy-hitting environmental PR, and the idea that art should (only) be PR for a cause such as environmentalism – is part of the violence we do to ourselves and other life forms. It is Victor's obsession with being interesting and exciting and praised that causes him to invent, then abandon, his creature. He cares too much and he wants too much for people to care about him. Perhaps this is another way to read the 'watery eyes' of the creature (p. 39). They are not simply expressions of psychopathic malice or zombie animation: those might be anthropocentric, overcharged (Victor-centric) reactions to something that might seem more like the eyes of a sheep. Their blankness invites Victor's horror, whereas it might invite a caring uncertainty. The cold hostility Werner Herzog sees in the seemingly blank eyes of bears is an index of his anthropocentrism: he sees Nature red in tooth and claw, but perhaps the bears are just into something he is not into.⁹

Is it just humans we are talking about when we talk about environmentality? Are non-humans allowed to be 'into' in *Frankenstein*? We are beginning to glimpse that they are. Heidegger only allows humans to have and bestow environmentality, and German humans most of all; so it would be excellent

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to find Mary Shelley letting non-humans in on the fun. On the whole, the novel appears to be typically anthropocentric in this regard, typically that is as a product of Romantic-period values and concerns. But one answer to the question is surely yes. Think not only of watery eyes, but of the letters themselves: they sit there, perhaps unopened, precisely *not* waiting for a human to activate them. Rather they exceed what humans do with them (namely open and read them): they collect dust, they shelter insects, they rest for days on tables, like Mrs Saville's eyes resting on the words. Because of Mrs Saville, whenever we close the book we might notice that the pages and the words are behaving without reference to us, even if they are just inertly lying there. Language itself is a non-human being. One might even argue that language makes humans – we would not know what 'human' meant unless language told us and we could speak it.¹⁰ In this sense, language is logically prior to humans, though it might not be chronologically prior – though this is highly debatable (do no other life forms communicate?). The creature's narrative shows us all kinds of non-humans interacting without a human in sight to give them meaning and graciously bestow reality on them. It all happens in a forest, a thickly non-human environment in which trees and mammals and birds and insects (and, we now know, bacteria and fungi) exchange more or less explicit communications without reference to humans at all. This lack of reference is noted by the creature himself as an opacity, ingeniously rendered not at total nothing, but rather as a *meaningfulness not for him* (pp. 79–81).

As we have just seen, an ecocritical approach can illuminate features of a text that no other approach has yet illuminated. There are precious few readings of the role of Mrs Saville, the silent reader – and because of her silence, she is silenced and rendered invisible in most readings of *Frankenstein*. But the fact that she is present in the text, even in this minimal way, must have some significance, which I hope I have elucidated. In the future, *all texts* will be read with regard to environmentality, just as now they are all read with regard to race, gender and sexuality, whether or not they have to do explicitly with race, or gender, or what have you. This is because, as I hope I have shown, environmentality is not about stock descriptions of bunny rabbits and mountains. Environmentality is a fundamental feature of representation, because it is a fundamental feature of being.

Non-humans

When we consider a life form, we need to consider the monstrous. The monstrous is the minimal unit of evolution. Darwin argues that sometimes monstrosities can become variations, and sometimes those variations can

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result in speciation – the development of a new species.¹¹ But the quantum of evolution is a random mutation for no reason at all: evolution is a cheapskate, without teleology. Pre-Darwinian ideas about life forms were dominated by Aristotle, whose concept of life was deeply teleological: ducks are for swimming, Greeks are for enslaving barbarians and so on.

So Frankenstein's creature weirdly *typifies* what we now consider to be a life form, rather than deviating from it. Or rather, all life forms are deviance all the way down, kluges of other life forms' parts. Our lungs evolved from the swim bladders of fish, yet there is nothing remotely like a lung-in-waiting about a swim bladder.¹² Swim bladders were 'exapted', adapted from another function.¹³ The monstrosity of variation, speciation and so on is the reason why evolution works at all. Monstrosity is *functional*.¹⁴

Life is monstrosity, but the reaction to life need not be horror; many reactions to the monstrous are possible. Frankenstein is hamstrung by his *concept* of life, which he derives from vitalism, a view popular in Shelley's day that life is enabled by some animating spark different from matter. John Abernethy popularized this view in England with flashy experiments whose showmanship Frankenstein perhaps imitates. Opposed to this view was materialism, the idea that life could be explained simply in terms of the organization of matter itself. Shelley's doctor, William Lawrence, held the materialist view.¹⁵

For vitalism to work, it must view life as something absolutely different from what it sees as 'dead' matter. Thus arises a dilemma: in a sense, all life forms are zombies, because they are all mere bodies, corpses animated by an external force. When the creature is animated by the bolt of lightning, Frankenstein's fantasy becomes reality, another term for which is *nightmare*. The idea that life is merely animated meat becomes horribly real, right in front of him. On a materialist view, life is less sharply opposed to death and the inorganic: it is simply a certain configuration of matter, as Shelley's contemporaries would have put it, or (as we might say now) an emergent property of how some kinds of matter interact. On this view, too, it is difficult to distinguish life from non-life. Indeed, life relies deeply on non-life (we are made of chemicals after all), such that as biology has continued to probe into the *logos* of *bios*, stranger and stranger forms have been discovered, such as viruses – are they alive? A virus is a protein-encapsulated string of RNA or DNA, code made of proteins. A computer virus is a piece of software made of electronic charges in silicon and other materials. If one thinks a virus is alive, one might have to concede that a computer virus is also alive. In a way, on the materialist view, all beings are alive, or rather, all beings are equally undead. Uncanny feelings pertaining to how loose this boundary is afflict Frankenstein as he tries and fails to assemble a female creature: the

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creature-to-be is at once a pile of dismembered limbs, and the disfigured corpse of someone who already existed: 'I almost felt as if I had mangled the living flesh of a human being' (p. 142).

I say *undead* because being alive is very difficult to find – it is hard to point to life as such. Perhaps life as such does not exist. Or perhaps it is more subtle than that. Perhaps 'life', like 'environment', is a curious being whose way of existing is different from constant presence. The more we know about life forms, the more they slip into an uncanny valley between our traditional categories of life and death. And that is no bad thing – a rigid distinction between life and death, as in vitalism, results in violence in all kinds of ways. Violence distinguishes between living and non-living things. This distinction is maintained by banishing, yet secretly admitting, a monstrous category between life and death, the category into which the creature falls.

In robotics design, the Uncanny Valley is a region in which androids that too closely resemble humans look like horrifying zombies.¹⁶ According to the model, we 'healthy' humans live on one peak, and all the cuter robots on the other. Zombies live in the Uncanny Valley because they ironically embody Cartesian dualism: they are animated corpses. They are 'reduced' to object status – default, manipulable object status, that is – and mixed with other beings: they have been in the soil. The Uncanny Valley concept explains racism and *is itself racist*. Its decisive separation of the 'healthy human being' and the cute R2D2 type robot (not to mention Hitler's dog Blondi, of whom he was very fond) opens up a forbidden zone of uncanny beings that reside scandalously in the Excluded Middle region.

The distance between R2D2 and the healthy human seems to map quite readily onto how we feel and live the scientific separation of subject and object, and this dualism always implies its repressed abject (that it attempts to reject or suppress) as we have just seen.¹⁷ R2D2 and Blondi are cute because they are decisively different and less powerful. It is this hard separation of things into subjects and objects that gives rise to the uncanny, forbidden Excluded Middle zone of entities who approximate 'me' – the source of anti-Semitism to be sure, the endless policing of what counts as a human, the defence of homo sapiens from the Neanderthals whose DNA we now know is inextricable with human DNA.

The more we know about life forms, the more the Uncanny Valley actually widens, opens up and flattens into what we might call the Spectral Plain. Ecological awareness takes place on the Spectral Plain whose distortion, the Uncanny Valley, separates the human and non-human worlds in a rigid way that spawns the disavowed region of objects that are also subjects – because that is just what they are in an expanded non-biopolitical sense.

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It is like animism but it would be better to write it with a line through it. A rigid and thin concept of Life is what the awareness I call *dark ecology* rejects. That concept can only mean one thing: business as usual for post-Neolithic 'civilization'. Life is the ultimate non-contradictory Easy Think Substance that we must have more and more of, for no reason. A future society in which being ecological became a mode of violence would be still more horrifying than the neoliberalism that now dominates Earth. Such a society would consist of a vigorous insistence on Life and related categories such as health. It would make the current control society (as Foucault calls it) look like an anarchist picnic.¹⁸ If that is what future coexistence means, I would like to exit Earth. The wider view of dark ecology sees life forms as spectres in a charnel ground in which Life is a narrow metaphysical concrete pipe. Death is the fact that ecological thought must encounter to stay soft.

In ecological awareness differences between R2D2-like beings and humans become far less pronounced; everything gains a haunting, spectral quality. This is equivalent to realizing that abjection is not something you can peel off yourself. The Nazi tactic of peeling off abjection while supporting animal rights is not inconsistent at all. Consistency is its very goal. Nazis are trying to maintain the normative subject-object dualism in which I can recognize myself as decisively different from a non-human or to be more blunt a non-German, a recognition in which everything else appears as equipment for my Lebensraum project. So there is little point in denigrating ecological politics as fascist. But there is every point in naming some Nature-based politics as fascist. Here is a strong sense in which ecology is without Nature.

The creature provides those around him with lessons in abjection, and abjection is the basic feeling of ecological awareness: I find myself surrounded and penetrated by other beings that seem to be glued to me, or which are so deeply embedded in me that to get rid of them would be to kill me. Tolerance of the creature, and anything greater than tolerance, would require becoming accustomed to abjection rather than trying to get rid of it. The creature himself suffers from it. Many have found it strange that when he looks into the pool like Eve in Milton's *Paradise Lost* (1674), he finds himself terrifyingly ugly. But perhaps Shelley is making a point here, a point we can now detect because of our increasing interest in ecology. Shelley in part is insisting on an Enlightenment concept of the normative human being above and beyond appearances, a concept that Frankenstein finds it hard to rise to, and the creature too.

Or perhaps Shelley is making it clear that this pristine idea of a human unsullied by appearances depends upon this abject extra. On this view, *to be a person is to be invisible* – the creature has no idea what he looks like at

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this point, and in the text he is just a voice, so this provocative separation of being and appearance is profoundly part of the texture of the novel. Theories of race often remark that whiteness is that skin colour that pretends not to be one, as if white people were invisible or transparent. Ecological awareness is the drastic perception that there is no such thing, which is why staying in a state of abjection or horror is far from ecological – in the end it is merely a (probably male) white Westerner's shock at having the rest of reality included in his view. Frozen in his abjection reaction, Frankenstein simply cannot care for his own creature.

And perhaps this is a not so subtle comment on monotheism, a persistent product of the agricultural age that began in the Fertile Crescent and elsewhere about 12,000 years ago, whose inner logic resulted in industrialization and hence the Anthropocene with its global warming and mass extinction. God creates Man and is horrified by what he sees of himself in the mirror of human flesh. The logic implies that God and monotheism cannot cope with ecology at all. Shelley's point is that everyone is afflicted with this idea, not just Frankenstein. Indeed, the creature was perhaps primed for it by all those Enlightenment reading materials he finds. In so doing, Shelley is suggesting that ideas are like computer viruses – they are not just symptoms of minds (or brains for that matter), but independent entities, strings of code lying around waiting for a vector.

Perhaps Shelley is suggesting that if we are going to think and write in an ecological way, we have to confront the thought viruses that are inhibiting us from doing so. Otherwise we will end up caring for dolphins because they are cute: they do not push us into abjection. But this is not such a powerful way of being ecological. We need to care about everything, and as I argued earlier, everything, aka the environment, has an uncanny, spectral quality just like Frankenstein's creature. It is as if the creature were a full-frontal, fully visible incarnation of environmentality itself. Caring for such a being involves accepting the super-natural, that is to say, what goes beyond our concepts of Nature, perhaps in an irreducible way. The monstrous is what we cannot predict. But the shock of the unpredictable must give way to compassion and solidarity. The question is, how?

NOTES

- 1 Helena Feder, "A Blot Upon the Earth": Nature's "Negative" and the Production of Monstrosity in Frankenstein', *The Journal of Ecocriticism*, 2(1) (2010), 55–66, 55–6. *Frankenstein* is also briefly discussed in Andrew Smith and William Hughes (eds.), *EcoGothic* (Manchester University Press, 2013), see 'Introduction: Defining the ecoGothic', pp. 1–14, pp. 2–3. Two exceptions are Jonathan Bate, *The Song of the Earth* (Cambridge, MA: Harvard University Press, 2000),

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- pp. 49–55; Timothy Morton, *Shelley and the Revolution in Taste: The Body and the Natural World* (Cambridge University Press, 1994), 47–51.
- 2 An exemplary instance is Anne-Lise François, “‘Oh Happy Living Things’: Frankenfoods and the Bounds of Wordsworthian Natural Piety”, *diacritics*, 33(2) (2005), 42–70. François is a scholar of the Romantic period, and even *she* does not need to refer to *Frankenstein*, even in an essay about ‘Frankenfoods’.
 - 3 Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans; with A Theory of Meaning*, tr. Joseph D. O’Neil, introduction by Dorion Sagan, afterword by Geoffrey Winthrop-Young (Minneapolis, MN: University of Minnesota Press, 2010).
 - 4 Gayatri Chakravorty Spivak notes the significance of Margaret Saville as a deliberately vague cipher for the reader in *A Critique of Postcolonial Reason: Towards a Theory of the Vanishing Present* (Cambridge, MA: Harvard University Press, 1999), pp. 132–40.
 - 5 Martin Heidegger, *Being and Time*, tr. Joan Stambaugh (Albany, NY: State University of New York Press, 1996), pp. 37–211.
 - 6 Mary Shelley, *Frankenstein: Or the Modern Prometheus; the 1818 Text*, ed. and Intro. Marilyn Butler (Oxford and New York: Oxford University Press, 1998), p. 23. Future references will be made parenthetically.
 - 7 Heidegger, *Being and Time*, pp. 40–1, 113–14, 115, 116, 127.
 - 8 Some serious ecological philosophy points in this direction. See, for instance, Giorgio Agamben, *The Open: Man and Animal*, tr. Kevin Attell (Stanford University Press, 2004).
 - 9 Werner Herzog (Dir.), *Grizzly Man* (Discovery Docs, 2005).
 - 10 Martin Heidegger, ‘Language’, *Poetry, Language, Thought*, tr. Albert Hofstadter (New York: Harper and Row, 1971), pp. 187–210.
 - 11 Charles Darwin, *The Origin of Species*, ed. Gillian Beer (Oxford and New York: Oxford University Press, 1996), pp. 63, 108–39.
 - 12 *Ibid.*, p. 160.
 - 13 Daniel Dennett, *Darwin’s Dangerous Idea: Evolution and the Meanings of Life* (Harmondsworth: Penguin, 1996), p. 281.
 - 14 Darwin, *The Origin of Species*, p. 102.
 - 15 Marilyn Butler, ‘The Shelleys and Radical Science’, in *Frankenstein* (ed. Butler), pp. xv–xxi.
 - 16 Masahiro Mori, ‘The Uncanny Valley’ (Bukimi no tani) tr. K. F. MacDorman and T. Minato, *Energy*, 7(4) (1970), 33–5.
 - 17 The abject is formulated by Julia Kristeva in *Powers of Horror: An Essay on Abjection*, tr. Leon S. Roudiez (New York: Columbia University Press, 1982).
 - 18 Michel Foucault, *Society Must be Defended: Lectures at the Collège de France, 1975–1976*, tr. David Macey (New York: Picador, 2003), pp. 243–7.