Radical Animism: Climate Change and Other Transformations

Can such things be,
And overcome us like a summer's cloud,
Without our special wonder? You make me strange

Shakespeare, Macbeth¹

Awakening

How to live with the strange radiance of this new dawn? All action reveals itself as interaction, *in terre* action, actions graved into the earth, interred but not put to rest, resurfacing, rupturing, interrupting the ground on which we stand – or fall. Ear to the ground: beating heart of earth, under threat. Listen.

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Radical animism has to do with life and living, with what living *is*, at root, or with what is living, even if it is not, in the strict sense, 'alive'. It entails a discovery or rediscovery of buried life and a careful or curious attention to the living breathing waking spirit of what is unearthed. It has to do with the experience of being alive, with others, here on planet earth. It involves thinking the pasts and the futures that cannot be separated from such an experience. It must reckon with the events happening now that are named under the heading 'climate change', the radical transformations of planetary environments and the multiplicitous implications – many unforeseeable – of these events for life on earth. It involves a careful thinking through the phrase 'life on earth' and the dependent relation it encapsulates: the relation between the *anima*, spirit or psyche, and the material, terrestrial ground. It recognizes that all that is vital, quick, beating with the fragile defiance of life must also come or succumb to

death: vitality is mortality. But it also recognizes that the traits or characteristics of life are not restricted to what we usually think of as 'living things', that non-human and non-living entities are also animated, alive. It involves thinking through the terms 'environment', 'ecology', 'economics' and 'extinction'. It has to do with response and responsibility. It will need what lives in language.

The planet is in transformation. Everything is changing. Things are strange and becoming stranger. Humans are implicated. We are responsible, even as we fail to respond. The conditions in which civilization flourished are altering, becoming other. This epoch is being called the Anthropocene: an age in which the human species has become a geological force, incalculably transforming the earth's systems on every level – altering the hydrosphere, atmosphere, lithosphere and biosphere. You are becoming aware of the fact that the ground on which you stand is not stable, passive and unmoving, but that it too is a force, has agency, responds. The way things once were begins to feel like a dream.

As Gregor Samsa woke one morning from uneasy dreams, he found himself transformed into some kind of monstrous vermin. He lay on his hard, armour-like back, and if he lifted his head a little, he could see his curved brown abdomen, divided by arch-shaped ridges, and domed so high that the bed cover, on the brink of slipping off, could hardly stay put. His many legs, miserably thin in comparison with his size otherwise, flickered helplessly before his eyes.

'What has happened to me?' he thought. It was not a dream. His room, a proper, human being's room, rather too small, lay peacefully between its four familiar walls.²

Franz Kafka's *Die Verwandlung*, translated as *The Metamorphosis* or *The Transformation*, is a story for the Anthropocene. The *-wandlung* ('change') of Kafka's title comes from the same root as the English verbs 'wander', 'wend' and 'wind': the Old Germanic *wend*, 'to turn'. This is a transformation in which something turns into something else, in which things are moving, tides and times are turning, perhaps taking a turn for the worse. The German prefix *verhas* multiple different associations – one of which has to do with change: the transformation of the *ver-wandlung*. But it also often implies something going wrong, a misstep (*ich habe mich verlaufen*; I got lost) or a mistake (*eine Verwechslung* or *ein Versehen*). When Gregor awakes to find himself turned into a monstrous vermin, we can only assume that such a transformation is not a positive one. Another possible translation, then, might be *The Catastrophe* (from the Greek $\kappa\alpha\tau\dot{\alpha}$, 'down', and $\sigma\tau\rho\dot{\epsilon}\phi\epsilon\nu$, 'to turn') – given its sense of 'an event producing a subversion of the order or system of things' (*OED*).

You are, right now, living that strange morning. Having woken to the reality of anthropogenic climate change, human beings find that they have become the 'monstrous vermin' or 'pests' of the world: animals that are destructive, noxious or troublesome and that, like parasites, live to the detriment of other animals or plants. For a long time, we got away with it. But our collective body is now so swollen that the cover, like Gregor's, is slipping off. It is not a dream. We look on, helplessly. Our home, the planet earth, familiar as the four walls of Gregor's room, has, without changing size at all, suddenly become 'too small'. The place, the technologies, the lifestyles which we have for so long assumed to be our property, or proper to us – just as Gregor sees 'his room, a proper human being's room' - become altogether inappropriate. 'What has happened to me?' he wonders. Or, as German grammar demands, 'What has happened with me?', 'Was ist mit mir geschehen?' Gregor is somehow implicated. We all are. I am reminded of Heidegger's questions at the beginning of *The Fundamental Concepts* of Metaphysics. He asks, 'What is happening to us here? [Was geschieht da mit uns?] What is man, that such things happen to him in his very ground?'3 In this age of anthropogenic climate change, these questions acquire a strange new force, as the assumptions upon which our conception of being is based are called into question and redrawn within an entirely altered framework of responsibility.

Kafka's tale takes up similar questions: the transformation of its title is not limited to Gregor but also concerns a transformation of what it means to be a human being, what it means to be an animal and what it means to live and die together. 'What has happened to me?' asks Gregor. A transformation, a change, a Verwandlung. Above I noted that the '-wand' in this word is a 'turn', the old Germanic root of which has several incarnations in English. The verb 'wend' (as in 'to wend one's way') wanders through a plethora of senses: it means not only 'to turn' or 'change' but also 'to translate', 'to go', 'to proceed', 'to leave', 'to cease to exist, 'to die' - thereby shadowing or foretelling Gregor's whole tale. The related verb 'wonde', now obsolete, means to turn away, 'to shrink from, avoid, shun; to refuse, just as, perhaps, the rest of the Samsa family turn from their transformed son. In German, as well as the turning motions of Wandlung (transformation), Wendung (a turn, or a turn of phrase: a trope) and wandern (to wander) – all of which occur in the text – the etymologically distinct word Wand also means 'wall': the four walls of Gregor's confinement, the walling-in of his world. Whether or not Kafka was consciously playing on the rich history that turns in this word is not my concern; instead, as will become clear, one of the endeavours of this book will be to pay careful and curious attention to the radical animism of language, to the strange way it does things of its own accord.

I open with this text because it touches on so many of the strange events occurring today, in this age of anthropogenic climate change. Climate change is an animal problem – a problem for animals and a problem that is animate, monstrous, alive. *Die Verwandlung* brings human beings face to face with a nonhuman other, with a living thing that they do not recognize as a fellow – despite their once-intimate relation. It also concerns the becoming-monstrous of the human: the precipitous mutation through which our way of living is revealed to be no longer compatible with the planet. It is about the responsibility we bear to human and non-human others, as well as the capacity, or incapacity, to respond. It is about forms of expression and language beyond the limits of human comprehension. It is moved by the uncanny or the *Unheimliche* – the strange and unsettling disturbance of that most familiar and familial of places: the home.

The transformation

Everyone alive today is a creature of the Anthropocene, even if the word did not exist when they were born. Retroactively ascribed, it is a term that belongs to a time that is very much out of joint. The Holocene – the geological epoch in which, until not too long ago, humans thought they were still living – was brought to an end by the emergence of what Antonio Stoppani called, in 1873, a 'new telluric force': human beings. 4 The OED defines the Anthropocene as the 'era of geological time during which human activity is considered to be the dominant influence on the environment, climate, and ecology of the earth'. Paul Crutzen, credited with coining the word 'Anthropocene' in 2000, dates its advent to 1784, with the invention of the steam engine and the subsequent transformation of industry - and, indeed, this correlates with the increased concentration of greenhouse gases read from polar ice cores.⁵ Humans have, however, left their mark on the planet in other ways too: by clearing forests and practising extensive agriculture, by cultivating and modifying certain plant crops and 'livestock', by directly or indirectly causing the extinction or endangerment of millions of species of plants and animals, by producing great swathes of non-degradable waste (some of it radioactive), by damming rivers and by spreading diseases and non-native species to new parts of the world. All of this accumulates force as the human population grows exponentially.

The denomination of the Anthropocene has been criticized for figuring human agency as a unified – or unifiable – force. T. J. Demos, in *Against the Anthropocene*, notes how the word 'tends to disavow differentiated responsibility

(and the differently located effects) for the geological changes it designates, instead homogeneously allocating agency to the generic members of its "human activities":6 While this is a crucially important point - and one to which we will be returning - I disagree with Demos's suggestion that we should avoid the term 'Anthropocene' altogether. This is for three reasons. First, as Adam Trexler recognizes, while notions of climate change or global warming are susceptible to being framed as mere 'prognostications that might yet be deferred' – however deluded such a stance may be - 'the Anthropocene names a world-historical phenomenon that has arrived'. Or as Bruno Latour remarks in Facing Gaia, the designation of a new epoch serves to mark climate change not just as a transitory event, a 'passing crisis', but rather as 'a profound mutation in our relation to the world.8 Second, the naming of a geological epoch massively broadens the frame through which we view human history, thereby effecting temporally what the 1968 'Earthrise' image did spatially, imaginatively providing a radical new perspective from which to understand the contemporary moment – including the unequal distribution of culpability and power by which it is characterized. Third, the term asks us to recognize that all human actions are now - and in fact always have been – inextricably embroiled within the bio-geo-chemistry of the planet. Eating, drinking, breathing, excreting, shopping, driving, farming, composting, hunting, mining – all of these activities, to a greater or lesser extent, are bound up with planetary systems that are beyond the scope of human sense perceptions.

Given the multitude of factors that have contributed to our increasing impact upon the planet, along with the relatively long timescales involved, it is hard to finally or precisely date the ascension of the anthropos to the level of a 'telluric force'. As Jeremy Davies discusses in The Birth of the Anthropocene, stratigraphic opinion as to the most appropriate start date for the new epoch remains divided.9 What all the marks of human life that I have listed above have in common, however, is their potential endurance, their *legibility*. The designation of the Anthropocene as a new geological epoch transforms our thinking of the future as well as the past: it is the recognition that, in millions of years from now, whatever becomes of the human race and life on earth, the story of human civilizations will be told by the planetary records we are leaving behind. Sarah Wood calls the Anthropocene 'an age in which human agency has written itself, with radically destabilizing effect, into the geology, the chemistry, the plants on our planet. To speak of the Anthropocene in terms of writing and legibility is no mere metaphor. Rather, the writing of words and the writing of geological traces (and, as we will see in Chapter 3, the writing of life) reveal themselves to

be but different species of the same genus. All of these species of writing possess a transformative force that extends far beyond the time and place of inscription. This book will be concerned with elaborating the shared – and animistic – traits of writing in a broad sense, and with showing how the kind of reading that we do when approaching a literary text is not fundamentally different from the kind of reading that geologists do.

The legibility of the Anthropocene brings with it a certain irony: these unintentional relics will far outlast any deliberate monument, any piece of art, any living language. As Davies notes, what will remain to be read in the far future is not our 'inward self-imagining' but rather the 'shape and intensity of [the human species'] material interactions with other beings and forces – coal, rice, coral, nitrogen, iron'. That given, the recognition of the Anthropocene also demands a conception of agency that is decoupled from conscious intention. Human actions on the planet may be influential enough to warrant the designation of a new epoch, but this is hardly a matter of sovereign control. Timothy Clark writes,

The newly recognized agent of humanity as a geological force is something indiscernible in any of the individuals or even large groups of which it is composed. It is a power that barely recognizes itself as such and which is not really capable of voluntary action or planning, as it arises from the often unforeseen consequences of the plans and acts of its constituents.¹²

The apex of human influence morphs into something above and beyond human power, and geological permanence is ironically tied to a threat to the conditions of lived existence. Even as geological agency is attributable to human actions, it is an agency so vast, so interconnected and so intractable that its force is more-than-human, uncannily invading or disrupting our sense of identity. As Bronislaw Szerszynski puts it, the 'becoming geological of the human is a "denouement" which is both our apotheosis and our eclipse'. The naming of the Anthropocene – somewhat counterintuitively – actually marks the *limits* of human agency, acknowledging as it does the fact that we are, in a vertiginous and absolute sense, as individuals, as states and as a species, not in control. In Wood's phrase, we are 'without mastery'. The Anthropocene is perhaps the name we have given to this realization.

So how are we to conceive of agency in the Anthropocene? As I have just said, it does not need intention and it does not need consciousness. It is also not simply the way that one thing might act upon or effect another, for this, as Jane Bennett writes, relies upon 'an atomistic rather than a congregational

understanding.¹⁵ Agency is something that happens *between* things, an emergent property of the dynamic inter-actions of all kinds of forces (human and non-human, conscious and unconscious, organic and inorganic) as they act upon and through each other. The point is not to newly identify or elevate non-human forms of agency – things have always acted upon other things. Rather, it is to recognize that what we think of as human agency is never purely human nor purely intentional, even or especially when it seems to be. To think animistically in the Anthropocene entails, as will be elaborated throughout this book, a recognition of and respect for these emergent, relational and unintentional forms of agency.

Clark writes that the Anthropocene is a time in which the 'environment' 'ceases being only a passive ground, context and resource for human society and becomes an imponderable agency that must somehow be taken into account, even if we are unsure how.16 It has, of course, always been this way, but in the Holocene, it was still possible to disavow this reality, to act as if the environment were merely 'a passive ground' and as if agency were something proper to human beings. But now, as Clark points out, the 'environment' can no longer be conceived as a mere 'environment'. It does not environ – or revolve around – us; it is not even separable from us. It destabilizes the opposition between inside and outside. It can no longer be thought of as something at a material or philosophical distance from human beings but is instead revealed to be something within which we are inextricably embroiled. Consider, for example, how far human actions are swayed by something as simple as change in the weather. As David Wallace-Wells notes, increased heat measurably increases violent behaviours – including murder, rape, assault, theft and suicide. 17 That the warming world will make humans more violent is just one of the ways in which climate change twists and transforms our sense of what agency is and who - or what – might be possessed of it. In such a time, animism takes on, as I will argue, a new and forceful significance.

Anthropocene reading: An autobiography in deconstruction

If the Anthropocene is a matter of marks or traces being *written* into the earth, it is also a matter of reading. The notion of *Anthropocene reading* can be understood in three interconnected ways – all of which are important to this book. First, it is the work of stratigraphers that I have been discussing above: the apprehension or reading of the nonlinguistic traces (such as atmospheric carbon

dioxide or radionuclide fallout) that are being interpreted as markers of the Anthropocene.¹⁸

Second, it is a mode of reading texts – literary and otherwise – in the context of today's environmental mutations. Such reading is not only attentive to the non-human forces at work in texts (at the levels of character, narrative, form, 'meaning', etc.) but also aims to recognize the ways in which even a critical stance may be subject to transformation in the context of the Anthropocene. As Clark notes, 'received or mainstream modes of reading and criticism, even when socially "progressive" in some respects, are now, despite themselves, being changed into what are effectively implicit forms of denial as the world alters around them'. 19

The third form of *Anthropocene reading* would involve reading the phrase another way: reading the Anthropocene not as the object being read but as *the thing doing the reading*. Not only, then, are humans reading the Anthropocene, but the Anthropocene is also reading *us*, revealing hidden meanings and strange unintentional ventriloquies, finding resonances and discrepancies that – until now – we have not noticed. Just as a new reading of a literary text can transform its meaning or significance without changing the words on the page, the Anthropocene works to radically transform long-established human self-conceptions. How might concepts like 'humanity', 'responsibility', 'rights' and 'agency' be recast in light of anthropogenic climate change and its effects?

We might think of the Anthropocene as a kind of autobiography of humankind - though its composition, heralding as it does the Sixth Mass Extinction Event, radically rethinks the phrase 'the death of the author'. David Wills suggests that autobiography can be understood 'as something other than the writing of one's life in the prospective of death - something other than simply what survives the end of a given life'; 'instead, it is something like a graphic automation or inanimation that precedes and even gives rise to life.²⁰ As soon as one writes an autobiography, the life described therein is extended and transformed by that very description, demanding an endless supplementation: 'as I record my life, I add to the life that my autobiography will henceforth have to take account of, along a future vanishing point that only death can interrupt.'21 If, as I just suggested, the Anthropocene can be understood as the autobiography of humankind, its fundamental unfinishability is also its inherent power of transformation. The auto-deictic nature of autobiography – its self-awareness – transforms the very 'I' it signifies, so that the Anthropocene marks itself not only stratigraphically into the planet but also into what it means to be human. Its threat is our chance. The Anthropocene is an autobiography that ruptures

the self-conception by which it is named, revealing an *anthropos* that is more animal, more inanimate and more open to transformation than the writing of History – inscribed as it is under the delusion of an authorial intention – has ever before had cause to admit.

The fourth blow

Early in the twentieth century, Freud described three blows or wounds (*Kränkungen*) to the '*naïve* self-love of men', three scientific revelations that worked to decentre and destabilize the concept of 'Man'. These are as follows:

- 1. the Copernican revolution, which revealed the earth to be 'only a tiny fragment of a cosmic system of scarcely imaginable vastness', thereby exploding the belief that Man is the centre of the universe;
- 2. the work of Charles Darwin, which, according to Freud, revealed humankind's 'ineradicable animal nature', thereby undermining any notion that Man is distinct from and superior to other animals; and finally,
- 3. the work of psychoanalysis itself the 'most wounding' blow which revealed that there are unconscious forces at work in the mind, thereby destroying the long-held conviction that humans are agents of an entirely conscious will. As Freud writes, the ego 'is not even master [*Herr*] in its own house. 43

This last formulation, which figures the blow of psychoanalysis as a loss of mastery, is, in a later text, more explicitly linked to all three of the blows – implying that Man's 'self-love' or narcissism is consistently founded upon the delusion of mastery. Freud writes that the 'cosmological' blow destroyed the

illusion of the 'dominating part [herrschende Rolle]' Man saw himself occupying in the universe, thwarting his 'inclination to regard himself as lord [Herrn] of the world'; the 'biological' one revealed the fiction by which Man cast himself in a 'dominating position [Herrn] over his fellow-creatures'; and the 'psychological' one showed that he is not 'supreme [souverän] within his own mind', that part of the mind's activity 'has been withdrawn from your knowledge and from the command [Herrschaft] of your will'. Ironically, then, the assertion of mastery over the external world attempted by scientific enquiry undermines itself at each of these significant breakthroughs.

In an essay that discusses these blows, Simon Glendinning notes how the concept of 'Man' – tied up as it is with a Graeco-European identity founded on reason and science – is traumatized by the very thing that was used to justify its centrality in the first place:

Europeans will have been *vexed* by the very achievements that made them great, that made them so sure they were at the centre of the centre. The world constructed in the name of a certain Greco-European memory, a Greco-Romano-Christian memory, the world that gave itself 'Man' as the name of its own Being, that world is also the site of offences and injuries that have cumulatively chipped away at that *construction*, making of that world, at the same time, the site of its *deconstruction*. There where a certain conception of the humanity of man flourished there also began a movement of its decay.⁴⁵

Scientific knowledge is the ground for Man's centrality, dominion and rationality, whilst simultaneously coming to demonstrate that such notions do not hold up to deep scrutiny. And yet, foundational though this ontological decay may be, a century has passed since Freud wrote of these blows, and it seems the 'naïve selflove of Man' has proved itself extremely resilient, demonstrating a capability for repression that allows it to go on functioning – not by denying the truth of the discoveries but by failing to take them into account. The construction of 'Man' (and I retain the gendered term, for the construction itself operated from and maintained that same gender bias) and the ideologies and actions it facilitates still stand strong and powerful in the worlds of politics, economics and law, if not quite so much in philosophy and science – and unfortunately it is not the latter two which shape the way the majority of the human race relates to the world. While we may accept the post-Copernican view that the earth is not the centre of the physical universe, 'Man' remains at the centre of a conceptual universe which forecloses or ignores the rights of non-human or non-living entities and revolves (versus) only around our one (uni-) 'human' way of being.

While many educated people intellectually accept the Darwinian realization that *Homo sapiens* evolved as part of a vast and incalculable evolutionary tree, the implications of this fundamental interconnectedness have not transformed humanity's relationship with the environment and other living species in the way that one might hope or expect. Indeed, there remains the fact that one of the most powerful countries in the world continues to permit schools to teach evolution as a 'controversial theory' alongside Creationism - the latter being a narrative which stands in stark contrast to both scientific and animistic worldviews, and which is propounded to the detriment of both. The work of psychoanalysis commands even less respect: most humans continue to live and act as if they are the agents of a purely conscious will, while popular culture dismisses or ridicules Freud's work through the reductive metonymy of the 'Oedipus complex' or 'penis envy' (though Freud might have seen this coming when he said that in 'emphasizing the unconscious in mental life we have conjured up the most evil spirits of criticism against psycho-analysis').⁴⁶ The truly post-Freudian ethical, juridical and political systems that Derrida called for in Without Alibi continue to remain a far cry from the reality of these institutions.⁴⁷ In short, the 'naïve self-love of Man' remains operationally intact and continues to define the dominant ideological structures of our political and economic systems.

Anthropogenic climate change, I argue, poses the fourth and final blow to pathological human narcissism: it is the destruction of ecology by the so-called economy, the societal dependence on monetary growth rendering impotent the reciprocally generative processes upon which life depends and thereby bringing the extinction of the human species – along with that of millions of other species – into the horizon of imminent possibility. It can also be read as a direct result of our failure to take into account the previous three blows. These were scientific discoveries that stood testament to humankind's power of reason whilst simultaneously decentring that reason. Climate change, however, whilst being inadvertently caused by the actions of human beings, is a blow that issues from the earth itself: it is the animism of a complex of living and non-living matter into an agency or force that works to both materially and philosophically destabilize the ground upon which we stand.

Readers of Derrida's *Specters of Marx* will remember that a fourth blow has already been named there: the trauma of the ideology and legacy of Marxism. I do not entirely discount this claim but rather aim to show that climate change is the inevitable reverberation of what Derrida describes as the fourth blow. This blow, he writes, is distinct from the previous three in its severity and its

movement; it is the 'deepest wound' as it 'accumulates and gathers together the other three':

It carries beyond them by carrying them out, just as it bears the name of Marx by exceeding it infinitely. The century of 'Marxism' will have been that of the techno-scientific and effective decentring of the earth, of geopolitics, of the *anthropos* in its onto-theological identity or its genetic properties, of the *ego cogito* – and of the very concept of narcissism.⁴⁸

Yes, but ... how is it that these movements of decentring happened but also, and in a very real sense, did not happen? While the scientific discoveries of the twentieth century could or should have been the end of the very possibility of anthropocentrism (at least in its most crude or destructive manifestations), it was nevertheless a century in which the centrality of the anthropos (that is to say, the Graeco-European, scientifically and rationally minded, Christian, neoliberal, capitalist, white, male *anthropos* – and all of these categories are of course allied) continued to determine and justify our relation to the earth, to other species and to each other - the century in which, perhaps, Man became a master of doublethink, where morality and (in)justice became ever more entangled with power relations and the economic imperative of capitalist expansion gained rather than lost force (as, indeed, its structure demands). The very possibility of this doublethink has to do, I suggest, with what Derrida calls the real trauma of the Marxist coup, which lies 'in the body of its history and in the history of its concept, 49 which is to say in the force of its oppositional yet inseparable aspects, both the messianic communist dream and the horrors of totalitarian reality, and how this inconsonant history continues to reverberate today. Glendinning writes,

What happens when we attempt to realize the Marxist dream of creating an ideal form of social life for 'Man' (and of course that dream was never only a Marxist dream – it is *the* dream of 'the end of Man' in the discourse of Europe's modernity), what happens when we attempt to realize, through our own hands, conditions of actual equality in a classless society, what happens is: disaster, the horror of the history of the totalitarian world.⁵⁰

It is this history that contributes to the ongoing repression of the previous traumas that otherwise should or could have decentred the concept of Man. The possibility of Man as the protagonist of a progressive history is swept away by the event that was proclaimed to be not just a milestone but also the very pinnacle of that progression. The trauma undoes not only the ideals of equality

and emancipation it should have heralded but also their credibility: communism becomes a dirty word, and capitalism – the force that created the inequality and alienation which Marx saw as so unsustainable and only ending in inevitable revolution – becomes itself inevitable, ingrained in the common consciousness as the only possible system, lauded as the end of history. Reading the passage from Glendinning quoted above, I cannot help but note how up until the colon there seems to be a question mark on the horizon, the promise of a promise, an open hope for this ideal dream, but the question never comes because we all know the answer, and there is no use today in asking questions about socialist ideals.

To live in a world dominated by, as Glendinning remarks, 'those who would prefer to think that it is all over for emancipation and progress', makes it feel as though we are 'lost today in a way that can seem beyond any hope'. Indeed, the thought of such a world inspires an immense sadness. Derrida reminds us that the *idea* of democracy – the 'emancipatory promise' of a messianic justice to come – remains intact, yet it stands ever more at odds with 'its current concept and from its determined predicates today'. This has to do with the unforgiveable levels of inequality allowed to exist and increase worldwide. Calling for a 'new international', in a passage it is necessary to quote at length, Derrida writes of

the limits of a discourse on human rights that will remain inadequate, sometimes hypocritical, and in any case formalistic and inconsistent with itself as long as the law of the market, the 'foreign debt,' the inequality of technoscientific, military, and economic development maintain an effective inequality as monstrous as that which prevails today, to a greater extent than ever in the history of humanity. For it must be cried out, at a time when some have the audacity to neo-evangelize in the name of the ideal of a liberal democracy that has finally realized itself as the ideal of human history: never have violence, inequality, exclusion, famine, and thus economic oppression affected as many human beings in the history of the earth and humanity. Instead of singing the advent of the ideal of liberal democracy and of the capitalist market in the euphoria of the end of history, instead of celebrating the 'end of ideologies' and the end of the great emancipatory discourses, let us never neglect this obvious macroscopic fact, made up of innumerable singular sites of suffering: no degree of progress allows one to ignore that never before, in absolute figures, never have so many men, women, and children been subjugated, starved, or exterminated on the earth. (And provisionally, but with regret, we must leave aside here the nevertheless indissociable question of what is becoming of so-called 'animal'

life, the life and existence of 'animals' in this history. This question has always been a serious one, but it will become massively unavoidable.)⁵³

Specters of Marx speaks to us from nearly three decades ago, but each point that Derrida makes continues to resonate in a world that, under the current economic system, can only continue to become more and more unequal. In fact, when we read this passage again in this time of catastrophic climate change, the terms take on new depths of meaning: violence, inequality, exclusion, famine, economic oppression, innumerable singular sites of suffering, subjugation, starvation, extermination – these are words fed and nurtured by neoliberal capitalism and grown monstrous in the age of climate change, as our governments and the corporations to which they answer consistently choose profit over the rights of humans and other living beings. Today, that parenthetical animal question can no longer be left aside.

It has been argued that to blame the climate crisis on capitalism is to oversimplify things. Clark notes how 'the processes culminating in the Anthropocene include events that predate the advent of capitalism, primarily the invention of agriculture, deforestation and the eradication over centuries of large mammals in all continents beyond Africa as humanity expanded across the globe, while Trexler comments that 'climate criticism's reflexive Marxism suffers from ... grave shortcomings, 'obscur[ing] the fact that other economic structures - particularly Russian oligarchy, Chinese communism, and Middle Eastern monarchies - have had abysmal environmental records and produce tremendous quantities of greenhouse gases'.54 Clark and Trexler both make points that are important to keep in mind but which do not exonerate capitalism in the way they imply. Clark is right to note that the geological markers of the human species predate capitalism, but it is only in the age of capitalism that human effects on the planet have accumulated enough force to change the entire climate. Meanwhile, Trexler's claim that there are 'other economic structures' that 'produce tremendous quantities of greenhouse gases' effaces the extent to which the 'abysmal environmental records' of these other structures are themselves implicated in global neoliberal capitalism. Post-Soviet Russia may not have had the most successful free market, but that does not mean that it should not now be considered a capitalist nation; much of China's manufacturing industry (and the emissions it produces) feeds the capitalism of the rest of the world; and Middle Eastern oil has accounted for a quarter of global oil supplies. None of these nations, that is to say, are entirely separable from the global capitalist economy. Capitalism is not a simple or easy culprit, but its role in the climate

crisis should not be downplayed. Above all else, it is surely the idol of profit that has handicapped any attempts to reduce emissions, whether through corporate-sponsored misinformation programs (such as that produced by the Heartland Institute), through governmental interests or through the culture of consumerism which creates such an effective means of distracting citizens.

The catastrophe of anthropogenic climate change is the final and fullest reverberation, the ongoing apocalypse, of everything that is invoked under the name of Marxism and its history: the original injustice of the capitalist mechanism, the contradiction between a finite planet and the principle of infinite growth, the inequalities produced, maintained, exacerbated and justified, the dream of an equal world and the horror of its calamitous realization, and the consequential fortification of the capitalist system into a 'best possible world' – for the 1%. This fourth blow accumulates and gathers together the previous three in ways this book will elaborate, but for now let us recognize that its absolute trauma lies in the fact that it comes *at* the human from *beyond* the human, it comes *from the earth itself*. It is the Anthropocene reading us.

This is the uncanniness and the *unheimlichkeit* of climate change, where we learn all at once that, on the one hand, everything is interconnected in the profoundest of ways and that we are inextricably a part of the nature we have always tried to subjugate, and, on the other hand, that our home is not necessarily a home *for us*, and that it never has been. It is about knowing something that we should have known all along, about the undoing of all we thought we knew (the negation, so to say, of our putative 'canniness') and the becoming unhomely (*unheimlich*) of the home. It poses an absolute threat, yet one that cannot be pinned down, fenced off or eradicated.

The double apocalypse of climate change brings to the fore both the social injustices upon which our economy has been built and the absolute limitations of an extractive relationship with the planet (both revelations were, as I shall go on to explain, identified by Marx). To be clear, the former has to do with the notion of the 'monstrous' inequalities that Derrida invokes in the passage quoted above. It is the people who live in the poorest parts of the world, those with the least 'techno-scientific, military, and economic development' (which all boils down to a lack of accumulated capital), who are on the front lines of climate change. In a cruel irony, it is less economically developed parts of the world that tend to lie in regions that are currently being hit hardest by extreme weather (though, of course, the extreme weather has not been exclusively hitting these places). Not only are such nations less prepared for disasters (which means that the effects tend to be worse) but they also lack the money to look after their

people or to repair the damage done. They cannot afford, when crops fail, to import food from elsewhere. Further, it has always been poor areas that have been the essential sacrifice zones, the out-of-sight sites of suffering so necessary to the economies of the developed world. As Naomi Klein notes, sacrifice zones are particular areas of land or water, and particular sections of humanity, that matter little enough to make 'poisoning in the name of progress somehow acceptable.'55 These are the places that we raze and burn, mine and pollute: the human beings and other species that we poison, starve, kill and forget - all the while proclaiming that this neoliberal capitalist free market economy is creating a better world for all. Such violence is what Rob Nixon calls 'slow violence': a violence dispersed over space and time to such an extent that 'the casualties incurred typically pass untallied and unremembered, and the perpetrators escape all culpability.⁵⁶ Capitalism has always operated via such violence (in, for example, the delayed effects of poor working conditions and in unequal access to education and healthcare), but climate change multiplies its logic, causing widespread and long-term suffering devoid of clearly assignable blame. Derrida speaks of the 'sacrificial structure' of Western philosophical discourses and culture that includes 'a place left open ... for a noncriminal putting to death'.⁵⁷ He is referring to the putting-to-death which is not classed as murder because it takes non-human life: namely, the meat industry (and we will return to this in the third chapter of this book). This sacrificial structure is also inherent to capitalism in its reliance on sacrifice zones - both spatially and temporally dispersed – to facilitate profit, as it multiplies the deaths (or, indeed, extinctions) of innumerable species of non-human life and sanctions the 'noncriminal putting-to-death' - direct or indirect - of humans.58 As Wallace-Wells notes, the death toll of 'air pollution alone' is already 'at least seven million deaths' per year, equivalent to 'an annual Holocaust'.59

The existence of sacrifice zones brings me to the second revelation of the double apocalypse of climate change: that we live on a finite earth and we always have done. Now that conventional fossil fuel reserves are nearing depletion, the industry is forced (by the capitalist structure that demands infinite growth) to find new ways to get at fossil fuels in places previously untapped, notably in the fracking boom. Suddenly the dangerous side effects of extraction are happening where we ('we', the developed world, 'we' who owe that development to innumerable sacrifice zones past and present all over the world) can see and feel them. In the communities close to fracking sites in the United States, not only have water sources been poisoned (as has been widely reported), but there has also been greatly increased incidence of small earthquakes, and, perhaps more

seriously, there has been an increase in miscarriages, hysterectomies and birth defects – an incursion on the future before it comes. 60 The furore around fracking has brought to light not only the horror of the lethal effects of an industry our governments are blindly expanding but also the horror of the fact that it is only when the toxic destruction of the extractive industries encroaches into places presumed sacrosanct that the majority of people in the developed world begin to question them at all ('not in my backyard'). What climate change reveals to us, then, is that the heretofore assumed and relied upon distance of sacrifice zones (rendering them both discreet and discrete) - morally reprehensible though this is – is a delusion: in fact, we have been treating the entire planet as a sacrifice zone all along. As Clark writes, our economy has long operated upon 'the false supposition of an infinite earth, an inexhaustible externality in both space and time, assuming that 'natural resources (air, water, soil, and tolerable weather) are free gifts' and that 'future time and the terrestrial space can act as bottomless repositories for waste or for issues that thinking wishes to avoid.61 Yet the by-products of the irresponsibility and greed of the developed world have been accumulating in the atmosphere faster than they can be absorbed, and global warming reveals how irrefutably this 'supposition of an infinite earth' is false: 'the distance is closing, and soon enough no one will be safe from the sorrow of ecocide,' writes Klein.62

A century and a half ago, Marx recognized the fundamental contradiction between an economic system that demands constant expansion and the limited earthly resources upon which it draws. Writing at a time when, to most people, the planet would have still seemed infinite in its capacity to provide the raw materials for the magical dance of commodities, and infinite in its capacity to subsume the waste created in the process, Marx nevertheless perceived an 'irreparable rift' in the metabolic relation between man and his environment, which was based upon 'the exploitation and the squandering of the powers of the earth'. Capitalism operates, as Marx identified, by 'simultaneously undermining the original sources of all wealth – the soil [*Erde*, earth] and the worker'. For Marx, it was to be the worker who would inevitably take offence at this inequitable structure and revolt. Yet there are certain self-protective mechanisms of the capitalist system which have prevented things from playing out in the way Marx assumed they must. These mechanisms include:

- (1) the literal and psychological distancing of producers from consumers;
- (2) the ideological ties between wealth and status that render certain sections of humanity inhuman enough to be an effectively disposable labour force,

- whilst other sections those in the 'middle' that are duped into thinking they are better off, and those at the top that reap the benefits of such a system either do not see or do not care;
- (3) the increased availability of commodities that would once have been markers of high wealth (such as laptops, smartphones and fast fashion), which works to reduce some visible signs of inequality and thereby coerce those with least economic power into supporting the very system which does so little for them;
- (4) the animistic thinking which endows 'corporations' with legal rights and status,⁶⁵ and the 'market' with freedom and agency;⁶⁶ and
- (5) the inherent tendency of capital and its concomitant power to exponentially accumulate and thereby facilitate the reinforcement of the ideology which made such accumulation possible in the first place (for example, in the mutually supportive relationship the so-called revolving door between corporations and the media).

Marx's conviction that a workers' revolution would be inevitable was destined – in its fatal underestimation of the self-propagating power of capital – to prove false. I wonder if he ever dreamed that it would be the soil – *the earth itself* – that would revolt?