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**Disaster's Gift: Anthropocene and Capitalocene Temporalities in Mahasweta Devi's
'Pterodactyl, Puran Sahay, and Pirtha'**

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Abstract: What is the time of the current, ongoing environmental disaster? I argue that the uncanny temporal torsions of anthropogenic climate change, and the need to understand disaster as a historicized process, mean that neither the prevailing Anthropocene narrative, nor Jason Moore's world-ecological 'Capitalocene', are adequate on their own. Rather, a synthesis of the two is necessary, via the notion of life and disaster as both possessed of a gift-form, in which to be human is in the gift of the inhuman, indifferent forces of Earth's climate systems as well as neoliberal capitalism. Drawing on Nigel Clark's work on the gift as a mode of ecological thought, as well as recent work on the 'ecogothic', I propose that Mahasweta Devi's long story, 'Pterodactyl, Puran Sahay, and Pirtha', represents multi-layered intervention: not only a compelling indictment of colonial modernity's disregard for tribal peoples caught in the jaws of India's Green Revolution, but also poses more wide-reaching questions about how a time of environmental crisis can be imagined in terms of this gift-relation.

Keywords: Anthropocene; Capitalocene; Mahasweta Devi; Disaster; Time; Gift; Ecogothic

In Mahasweta's Devi's 'Pterodactyl, Puran Sahay, and Pirtha', a relic of the deep past visits a tribal region afflicted by the collateral violence of India's Green Revolution. Via this unreal eruption of the impossible creature at a time of drought and extremity, Devi invites readers to reflect on the disjunctive temporalities both of this particular ecological calamity, and ecological crisis more generally. Indeed, defining the time of environmental disaster is a more difficult undertaking than might first be supposed, especially when the global effects of anthropogenic climate change (some anticipated, some already felt) are included in the mix. In what follows, I will suggest that Devi's text can be read as an instance of what Neil Lazarus calls "local universalism" in World Literature--that is, writing which opens up the structures of feeling of a given place and time but which may also, as a consequence of this particularity, "thread together [...] discrepant and discontinuous aspects of reality" (Lazarus, 2011b: 134, 133). I propose that the uneven geographies exposed by Devi are not only the socio-economic and cultural inequalities which affect the Adivasi, but a more broadly-conceived understanding of neo-liberal environmental crisis as involving all living things in a time of death. As it presents a compelling indictment of colonial modernity's disregard for tribal peoples and their relationship with their lived environment, 'Pterodactyl...' also poses more wide-reaching questions about how a time of environmental *crisis* is imagined.

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Anthropocene/Capitalocene

Thinking about the time of environmental disaster involves negotiating the tension between the dehistoricizing and narrowly linear effect of thinking disaster in terms of a ‘ruptural’ catastrophe, what Ariella Azoulay calls an “emergency claim,” and the normalisation of an enduring disaster which lacks a specific moment as only a “threshold catastrophe” (Azoulay, 2008: 67-9, 198-207). Certainly, how disaster is thought conditions the available responses to it. Azoulay’s concepts are grounded in the distribution of urgency according to systemic inequalities. Emergency claims only apply to people whose wealth shields them from an everyday experience of precarity. However, to insist upon what Elizabeth DeLoughrey (following Fernand Braudel) calls an “eventist model of history,” proper to the designation of an emergency, is to neglect that a proper response involves thinking differently about time and urgency (Deloughrey, 2011: 250). As Anthony Oliver-Smith and Susanna Hoffman affirm, disasters are “processual phenomena,” “historically produced pattern[s] of ‘vulnerability’” (Oliver-Smith and Hoffman, 2002: 3). Depictions of crises which emphasize their exceptionalism therefore disregard the disaster’s relationship with the everyday; rather, “most disasters are explainable in terms of the normal order” and can be interpreted as “an array of socially-derived effects” (Oliver-Smith, 1999: 23, 24). Yet without the urgency attendant on an emergency claim, where will the impulse to act come from?

These questions assume a particular insistence when applied to anthropogenic climate change, and the growing consensus among climate scientists in the phenomena of abrupt climate change (See Scheffer et. al., 2001; Lenton, et. al., 2007; Flannery, 2005). Abrupt climate change postulates that Earth’s climate system is inherently unstable, and the changes wrought by human activity are more likely to be comparatively sudden--effected over several generations, or fewer--than a smooth, gradual change as previously supposed. Whereas, as Nigel Clark has said, vulnerability to global heating can be mapped with reasonable confidence onto the existing contours of socio-economic inequality (Clark, 2011: 109), the temporal aspects of this are more difficult to plot. The prevailing logic of tipping points indicates that popular awareness of this is increasingly widespread (notwithstanding the more diehard breed of climate sceptic). The challenge to mapping the temporality of the current ecological crisis lies in accommodating the non-linearity of what Clark calls the “asymmetric causation” underlying historic or predicted climatic shifts; the potential in complex systems for “dense, internal feedback loops”, whereby small stimuli give rise to large-scale, possibly unstoppable transformations (Clark, 2011: 121, 116; see also Scheffer et. al., 2009: 54). Rather than describing an even transition from cause to effect, the temporality of tipping points is erratic. The threshold to an abrupt climatic change may have already been crossed, but its effects delayed by the inertia in the Earth’s climate

system--as Timothy Flannery observes, CO₂ released by coal-burning stoves at the turn of the twentieth century is still warming the planet today (Flannery, 2005: 167)--or it may figure a future many centuries ahead of us but intractable in its consequences, such as the predicted four metre sea level rises set to result from the now-inevitable melting of the Western Antarctic Ice Sheet (NASA, 2014). As Clark puts it, “abrupt climate change belongs as much to the past as to the future. It lies upstream as well as downstream of where we are now” (Clark, 2011: 117). Thus, where Oliver-Smith and Hoffman claim disasters must be understood to possess “pasts, presents, and futures” (Oliver-Smith and Hoffman, 2002: 12), where ecological disaster is concerned these times collapse into one another.

Reflections on the time of environmental disaster must therefore accommodate the timely and the untimely--that is, the urgent need for behavioural and systemic changes to avert the worst consequences, and the fact that this urgency frequently clashes with the profoundly uncanny nature of the time of ecological crises. The matter of which critical frame is best suited to shape these reflections is also the subject of ongoing debate. As the Stratigraphy Commission of the Geological Society of London continues to assess whether it should be considered a new unit of geological time, Paul Crutzen’s concept of the Anthropocene has increasingly come to dominate critical discussion of the ontological torsions of anthropogenic climate change, defining an era in which collective human action has become entwined with what Dipesh Chakrabarty calls the “geologic agency” of deep time processes (Chakrabarty, 2009: 206).

Recent critical interventions on the Anthropocene, however, have expressed concern about an anthropocentric bias in such ‘geological’ thinking. Eileen Crist has criticized an implicit neo-imperialism in Anthropocene narratives. “Nothing about it,” she writes, “--much less the name--offers an alternative to the civilizational revamping of Earth as a base of human operations and functional stage for history’s uninterrupted performance.” Such complicity “crystallizes human domination,” Crist suggests, rather than challenges it (Crist, 2013: 140, 141). Others have taken this perceived absence of systemic critique further. Andreas Malm and Alf Hornborg suggest that ‘the Anthropocene’ treats humanity as an abstraction, concealing the fact that carbon economies are constructed upon uneven social relations and distribution of resources (Malm and Hornborg, 2014). Perhaps the most trenchant recent critique, however, has been Jason Moore’s two-part essay, ‘The Capitalocene.’ Like Malm and Hornborg, Moore indicts the Anthropocene narrative for reducing “the mosaic of human activity in the web of life” to “an abstract humanity as homogenous acting unit” (Moore, 2014a: 2). In place of a “nature-as-resource” model, he proposes “nature-as-matrix,” folding the Anthropos into the space of capital, as the principal driver of the crisis. Moore suggests the

Anthropocene's "unduly narrow conceptualisation of historical time," expressed in the conflation of geological time with historical moments of change, leads Anthropocene-proponents into a "fossil-fuel fetishism" that treats capitalism as outside the web of life in which it intervenes (Moore, 2014a: 8, 9, 13). Although a consensus has formed around Paul Crutzen's assertion this was around 1800 as increased fossil fuel use converged with industrial modernity, Moore's critique of the Anthropocene hinges on his reading of the Industrial Revolution as "not a rupture with, but an amplification of, early capitalism's frontier logic," positing the onset of the Capitalocene with the rise of capitalist civilizations post-1450 (Moore, 2014b: 31). Outlying opinion proposes points as disparate as the mass clearing of forests 8,000 years earlier for agricultural purposes, or even to a futural moment "when humans become aware of their role in shaping climate" (Szerszynski, 2012: 171). The Capitalocene, by contrast, operates through a relational matrix which he calls the *oikeios*, in which the principal relation is that of nature with capital: capitalism, Moore says, is "an ecological regime," a "co-production of human and extra-human natures" (Moore, 2011: 42; Moore, 2014a: 6). The Cartesian dualism of human / nature (which, he suggests, Anthropocene thinking maintains in its "methodological frames, analytical strategies, and narrative structures" even as it preaches philosophical holism. Moore, 2014a: 2), must be re-understood as a matrix of human and extra-human agencies: in which environmental circumstances determine the formation of civilisations; which in turn--according to local opportunities and limits--shape their environments. Within this "messy bundling" of human and extra-human, as Moore calls it, capitalism operates not as a constitutive outside, but as "a relation of all nature." Ecology is "a way of seeing," he says; seeing ecologically involves, therefore, connecting capitalist accumulation and the production of nature (Moore, 2011: 40).

Moore's argument represents a key intervention, particularly in its emphasis on historical change achieved through "messy bundles" of human and extra-human natures. There is perhaps (at least when viewed from certain angles) a troubling evenness in Chakrabarty's suggestion that capitalist modernity has conferred a "geologic agency" upon humanity in the form of anthropogenic climate change, and we could follow Moore here, who has argued that the Anthropocene concept reifies uneven historical geographies by creating a "false aggregate of human activity" (Moore, 2012: 32). Yet in so thoroughly re-investing thinking about ecological calamity in thinking about capital, Moore risks reproducing what Imre Szeman calls the "system failure" of contemporary ecological thought (on both the political Right and Left); namely "the incapacity or unwillingness to imagine a future apart from the systemic reality of oil capitalism" (Szeman, 2007: 807). In a recent lecture addressed to the Royal Academy in Copenhagen, Bruno Latour has proposed thinking of capitalism "not [as] a thing in the world, but a certain way of being affected" when we contemplate its (good and bad)

effects (Latour, 2014: 2. Original emphasis). In particular, capitalism as a structure of feeling is experienced as helplessness in the face of the massive inequalities which capitalism produces and on which it relies. Latour has little patience with the system failures on the Left (even the radical Left) which “conniv[e] happily with the Right in letting capitalism be even more systematic than it is. [...] If you keep failing and don’t change [the system] it does not mean you are facing an invincible monster, it means you like, you enjoy, you love to be defeated by a monster” (Latour, 2014: 9. Original emphasis). We may imagine that Moore’s own response to this would be that we need to understand the system in order to challenge and change it. But what if the imaginative resources with which to think beyond the current system reside within the Anthropocene discourse which Moore derides?

Moore’s world-ecology does invite us to consider time’s role in global power-relations. “The geological facts of peak oil,” he says, “become historical facts” when geology “becomes a matter of determination, not determinism”; capitalism habitually disavows its status as an ecological regime, seeking instead to commodify time, and transposing a temporality of “peak appropriation” over the geologic temporalities of oil formation (Moore, 2012: 33). Barbara Adam makes the same point: economic exchange, she says, “recasts time in an atemporal form”: “the time logic of [...] consumption” in which “ground water, top soil and forest eco-systems that took thousands of years to develop are exploited in centuries and decades” (Adam, 1998: 15). However other ‘time logics’ also obtain, which are not accounted for in Moore’s world-ecology; namely time as revenant. As Kathryn Yusoff observes, what drives the present extinction is “the reanimation of an earlier extinction” (Yusoff 2013: 784). Thinking geologically in this fashion introduces a further shade of meaning to the question of how to use the time that remains; combining a sense of urgency with a sense of time that returns and endures, in the form of material shaped in the deep past and excavated with the potential to remain active in shaping life on Earth for millennia. Although Moore’s oikeios has much in common with Latour’s thinking about the enfolding of human and non-human agency, a key tenet of the capitalist world-ecology is capitalism’s apparent immanence, bundled up with everything. Indeed, it is difficult to read Moore’s analysis without feeling a creeping sense of helplessness at the total imbrication of capital and environment. And yet, the turn to more systemic modes of analysis would seem to be a vital way to redress some of the excesses of the Anthropocene narrative. My suggestion, to borrow from Latour, is “to bring this whole enterprise down to earth” (Latour, 2014: 10. Original emphasis), to revisit the Anthropocene from the Capitalocene. Both concepts are crucial to an ethical response to the uneven time of environmental disaster; which brings us to Devi’s story.

Disaster’s Gift

Disaster’s Gift: Anthropocene and Capitalocene Temporalities in Mahasweta Devi’s ‘Pterodactyl, Puran Sahay, and Pirtha’
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In Mahasweta Devi's 'Pterodactyl, Puran Sahay, and Pirtha,' an 'activist-journalist' (Puran), travels to a remote Adivasi village in the tribal district of Pirtha in Madhya Pradesh, which has reported sightings of an impossible creature--the pterodactyl. The text opens with a striking conjunction of the systemic and the uncanny which immediately poses the difficulty of how the text should be read: "Puran Sahay was sitting in the Block Development Office when he heard the account of this unearthly terror" (Devi, 1994: 95. Original emphasis). Devi, it seems, wishes to position her text between an analytical approach to the world-systemic operations of India's Green Revolution and one that is decidedly 'other-worldly.' In Pirtha, Puran discovers a society depleted physically, environmentally, and culturally by governmental indifference and the demands of agri-business. Much of the story is given over to long discussions of the bitter ironies of neoliberalism's elimination of ethical and ecological priorities. While the citizens of Bhopal contend with the aftermath of the Union Carbide disaster, the Chief Minister for Madhya Pradesh builds a luxury residence; deforestation has meant that agricultural poisons pollute Pirtha's water supply; millions of tons of food are exported from famine regions while aid workers distribute food to starving people in exchange for capturing their skeletal images on film; and the road, by which Puran travels to Pirtha, was built using money allocated for tribal welfare so that "owners of bonded labour [...] lusting after tribal women can enter directly into tribal habitations" (Devi, 1994: 109): in all, a "mass enclosure of the commons" which, as Sharae Deckard explains, "has been essential to the neoliberal ecological regime in its Indian manifestation" (Deckard, 2014c: 8). For all this, Pirtha is refused its emergency claim: environmental officials purposely visit the area during the rainy season so as to deny it is afflicted by drought, designating Pirtha as a threshold catastrophe without the distinctiveness of an emergency claim ("It isn't called a famine area," the Sub-Divisional Officer tells Puran. "Pirtha is a place of perennial starvation". Devi, 1994: 104). Yet shadowing this extended disquisition on the postcolony's demitting of its environmental obligations are rumours of the appearance of a "monstrous shadow" in Pirtha (Devi, 1994: 105). When Puran arrives in the village the emergency drums are sounding, where he also meets Bikhia, a young Adivasi man who is said to have witnessed the impossible creature and subsequently refuses to speak (in mourning, it is supposed, for the soul of the ancestors). Between the urgency of disaster and its normalisation there emerges a narrative rich both in times and untimely moments: the rapacious time of neoliberalism, the empty time of the nation, and the teleology of development co-exist with seasonal cyclicity, the ancestral time of inherited memory, and most significantly a revenant geologic or deep time.

According to one interpretive frame, the pterodactyl as the eruption of what Michael Löwy calls the "irreal" represents a critique of the physical and ontological violence of the ecological regime of India's Green Revolution (Löwy, 2007: 195). From Marx's invocation of gothic tropes in The

Communist Manifesto to Franco Moretti's assertion that the literature of terror is born out of the fear of a society split into the figures of capital and worker (Moretti, 1983: 83), the conjunction of the gothic and the forces of capitalism is well established. According to Steven Shapiro, "capitalist commodification produces an intrinsically gothic experience" to which the catachrestic narratives typical of gothic literature are especially adept at framing a response (Shapiro, 2008: 30). A strain of the uncanny colours the central insight of Moore's world-ecology, namely that "human agency is not purely human at all" but composed of a messy bundle of human and nonhuman (Moore, 2013: 4), and recent criticism has consequently sought to extend these insights to account for a world-ecological perspective. Michael Niblett has argued that irrealist texts flourish particularly in contexts of world-ecological crisis, presenting readers with an "aesthetics of the metabolic rift" (Niblett, 2012: 20); and Sharae Deckard in particular has made a compelling case for the potential of gothic or irrealist writing to map both the hierarchies and inequalities, and the varied temporalities of the world-ecology. Drawing on Michael Taussig's interpretation of devil-rites among Colombian plantation workers and Bolivian tin-miners as an expression of the alienation experienced by pre-capitalist societies inducted into capitalist modes of production (Taussig, 1980: 17-18), Deckard argues that because the contradictions of the world-ecology are most visible at the peripheries, registering the polygonal and multi-scalar composition of ecological regimes requires a peripheral cultural form: a 'global ecogothic' alert to the fact that "to interrogate the lived experience of world-ecology is to interrogate realism itself" (Deckard, 2014a: 4; see also 2013 and 2014b: 8-9). Today's global ecological stresses, whereby affluent Western lifestyles intrude "in the living space of a farmer on the floodplains of Bangladesh" (Clark, 2012: 155), undoubtedly possess a gothic aspect. The convergence, connections, and compressions of gothic writing enable a world-ecological perspective which slips the noose of a pedestrian material realism ("list[s] of GDPs, commodity prices, or drone missiles". Deckard, 2014c: 15) so as to "navigate the imaginary and material geographies" of the neoliberal ecological crisis (Deckard, 2014a: 5. My emphasis).

In this respect, the pterodactyl is the eruption of the irreal which exposes capitalism's "phantom objectivity" (Taussig, 1980: 4). Set in 1987, in the teeth of Green Revolution but several years before the balance of payments crisis and India's adoption of the IMF's structural adjustment programme in 1991, Devi's text illustrates how this decisive turning point in Indian economic policy (Desai, 2007: 796) was based on "tearing apart both nature and society" (Shiva, 1989: 4). The Green Revolution transformed the "common genetic heritage" of thousands of years of seed cultivation into the private intellectual property of multinational corporations such as the International Maize and Wheat Improvement Center (CIMMYT) and the International Rice Research Institute (IRRI) (Shiva, 1989: 33). The emergence of the pterodactyl also allows Devi's text to trace both the polygonal spatial logic and the multi-scalar temporal logic of this particular ecological regime; in Puran's first encounter with Disaster's Gift: Anthropocene and Capitalocene Temporalities in Mahasweta Devi's 'Pterodactyl, Puran Sahay, and Pirtha'

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the pterodactyl the presentist bias of commodity cycles (symbolized by the road along which Puran travels to Pirtha), which flatten space and time, is implicitly contrasted with the fantastically revenant deep time of a past geologic era:

From the other side of millions of years the soul of the ancestors [...] looks at Puran, and the glance is so prehistoric that Puran's brain cells, spreading a hundred antennae, understand nothing of that glance. If tonight he'd seen a stone flying with its wings spread, would he have been able to speak to it? (Devi, 1994: 141).

The reference to the stone picks up other mentions--“don't tell me the age of a stone,” is Puran's first, sceptical, response to hearing of the creature (Devi, 1994: 113)--which situate this moment in what Elizabeth Ellsworth and Jamie Kruse call the “geologic now”: the material and political realities of nuclear waste and carbon emissions mean that “the geologic [i]s a condition of our present time” (Ellsworth and Kruse, 2012: 7). In contrast with the road, the story's icon for the present of capitalist modernity from which the Adivasi are excluded, the impossible creature represents the emergence of what Jakob von Uexküll and Georg Kriszat called the “wirkwelt,” the visible materialization of ecological damage in a particular time and place but which is also radically open to other times and places. Uexküll and Kriszat argued that environments are not fixed states, but arise out of a being's unique sensory and experiential potential--that is, their particular umwelt. They further divided the umwelt into two elements: the Merkwelt, that which can be perceived, and the Wirkwelt, the impacts of an individual or being's actions. As Adam observes, whereas the Merkwelt of perception is always fixed upon the local, the Wirkwelt represents immanence. It is “temporally open and becomes perceivable as Merkwelt only after it materializes into a visible phenomenon at some time and some place” (Adam, 1998: 34). Thus the presentism of the road which bisects the forest just as the split induced by the ‘time of capital and development’ casts the Adivasi in an abject relation with modern Indian society (“The road,” says Shankar, “comes chasing us”. Devi, 1994: 120), contrasts with the pterodactyl's profound dislocation of space and time; and Puran's encounter with the pterodactyl, and indeed the story as a whole, invites us to read it not only as an examination of the violence of the Green Revolution or of the alienating effects of Colonial Forest Law, but as an uncanny eruption of the untimely inherent within the world-ecology.

The temporal openness of the pterodactyl-as-Wirkwelt extends to the decidedly plural temporality of the story itself. At several points the events in Pirtha are contrasted, unfavourably in terms of the likelihood of national or international attention, with Bhopal (“The state government couldn't be mobilized around such an immense poison-gas disaster,” observes Harisharan, “can it be moved about

Pirtha?” Devi, 1994: 147). In a reading of Indra Sinha’s Animal’s People, a fictionalized account of Bhopal residents’ efforts to attain justice, Rob Nixon has used the Union Carbide chemical disaster as a compelling illustration of his concept of “slow violence” (Nixon, 2009: 445), according to which the effects of environmental disasters which afflict non-Western nations are perceived as unfolding ponderously and erratically, in ways that are inconsistently distributed and more often discreet than spectacular. The Bhopal chemical disaster is an archetypal threshold catastrophe: in Sinha’s novel the residents of its fictional incarnation can be dismissed by the unnamed ‘Amrikan Kamapani’ (a thinly-veiled Union Carbide) because as “the people of the Apokalis” they occupy a permanent state of precarity (Sinha, 2007: 366). Puran’s encounter with the Wirkwelt of deep time represents another kind of “slow violence,” yet it also, nearly immediately, raises in Puran awareness that “now there’s very little time” (Devi, 1994: 142). As Clark observes, disaster typically demands a negotiation of two very different temporalities: the need to act decisively, and the need to bear witness to the crisis’s long timeframes of causation and consequence (Clark, 2011: 74). This is the site of the text’s “local cosmopolitanism”: the pterodactyl appears as a provocation to consider the excessively untimely character of ecological disaster in particular, which incorporates the slow and the fast, the urgent and the patient, the past and the future. Devi skillfully negotiates the interweaving of fast and slow, deep and urgent time: the unimaginably long geologic time of the pterodactyl is also a time of crisis, signified by the beating of the emergency drums; its message, although reaching unfathomably from “the ageless, timeless darkness of time,” is also “sharply, urgently wordsoundless” (Devi, 1994: 176, 155). It is a compelling, elegant depiction of what Sarah Sharma calls the “politics of uneven time” (Sharma, 2013: 314).

In terms of Moore’s critique of the Anthropocene, the pterodactyl could furthermore be said to provide an image which undercuts the fetishization of the Industrial Revolution as a ruptural or inaugural moment of ecological calamity, gesturing instead to the much longer cycles of the oikeios. If so it poses the question of the proximity between the time of neoliberal capitalism and the time of ecological crisis. The Capitalocene is fuelled by the appropriation of cheap sources of food, raw-materials, energy, and labour-power, resources which, once commoditized, depress food prices by producing an ecological surplus, sustaining an accumulation drive which continually, restlessly seeks new frontiers to exploit (Moore, 2010; see also 2014a: 7). The “yield windfalls” of South Asia’s Green Revolution were crucial, Moore argues, to the emergence of neoliberalism in the 1960s and 1970s; yet as more and more commodity frontiers are exhausted, “nature’s free gifts” (which were, in fact, the product of “a mighty expenditure of energy aimed at transforming nature’s work into the bourgeoisie’s capital”). Moore, 2014c. Original emphasis) become increasingly hard to source. Both the cheap water (acquired through the commandeering of space and the introduction of modern

irrigation technology) and cheap energy (via the use of intensive chemical fertilisers and high-yield seeds) which drove India's Green Revolution are today waning rapidly. Moore, 2010: 404, 402). This closure of the great commodity frontier places neoliberalism itself in the grip of a crisis whose temporality Moore defines as epochal rather than development (Moore, 2010: 402). As Kathryn Yusoff has argued, what human society seems to fear is most at stake in the global ecological crisis is not life, or even human life ('man'), but rather 'man's' doppelgänger, the human subject of late capitalism, enmeshed in the accumulation of capital and the designation of the Earth as standing-reserve, and in thrall to technological solutions (Yusoff, 2013: 782-783). The pterodactyl also, therefore, lends itself as an icon of neoliberal as well as ecological crisis, prefiguring the post-Green Revolution crisis of the late 1990s, when India's cereal production began to fail to keep pace with the world economy's increased demands for agricultural exports.

These various readings of the pterodactyl--as the unreal; as the wirkwelt of ecological crisis; as prefiguring an epochal crisis in neoliberal capitalism--demonstrate how Devi's audacious introduction of the impossible monster allows the story to register the various contradictions of the world-ecology. However the real value of the ecogothic, according to Deckard, is not just that it describes the world-system as it exists but also offers "hints of what the world might be instead" (Deckard, 2014c: 15). What potential resides in 'Pterodactyl...' to describe an alternative to the ecological regime? To discover this, it is necessary to shift the text's interpretive framework from one in which the 'free gifts' of nature are withdrawn to that of a gift economy.

Although the notion of the gift is implicit in the "relationship-in-nature" which constitutes the oikeios, Moore does not explore the full implications of a gift-based analysis, particularly in terms of the temporality of 'messy bundling' of human and extra-human. In Derrida's formulation, the gift is "the impossible. The very figure of the impossible" (Derrida, 1992: 7. Original emphasis). Both the gift and the pterodactyl appear where a gap opens up between "the impossible and the thinkable" (Derrida, 1992: 10). The gift, Derrida says, is impossible insofar as it cannot be acknowledged as a gift. To do so voids its unique status by interposing an obligation to offer a counter-gift. Similarly, the pterodactyl's impossibility lies in the intimation of a gift relationship with that which is entirely inhuman: the Earth itself. Life has a gift-form. As Nigel Clark observes, the crucial insight of Earth sciences is that we as humans inhabit a world seemingly uniquely formed to suit our needs, but wholly indifferent to them. The volatile Earth, through its eruptions and cataclysms and the inconceivable patience of evolutionary time, has inducted humankind into an impossible gift relationship: "what arrives by way of asymmetrical causation comes as a gift," as Clark says, because it can never be reciprocated. This gift arrives, however, with a "perilous promise" that what has been

gifted may be withdrawn, or offered in such an excessive extent that human life is overwhelmed (Clark, 2011: 52). To be human is thus in the gift of the inhuman, to experience the “constitutive vulnerability” of inhabiting a world gifted to but not made for us, and which retains always the potential to revoke its support (Clark, 2011: 210). As an incarnation of geologic time the pterodactyl is an incarnation of this ‘world’s gift’ which recalls us to our asymmetric dependence on the inhuman. But it also stands as a potentially proleptic encounter with an earlier life form, similarly dependent on asymmetric causation, which suffered the withdrawal of the world’s gift. Puran speculates regarding the pterodactyl’s message:

What does it want to tell? We are extinct by the inevitable natural geologic evolution. You too are endangered. You too will become extinct in nuclear explosions, or in war, or in the aggressive advance of the strong as it obliterates the weak, which finally turns you naked, barbaric, primitive, think if you are going forward or back. Forests are extinct, and animal life is obliterated outside of zoos and protected forest sanctuaries (Devi, 1994: 157).

Like the pterodactyl, the current age of ecological calamity presents us with a precarious future that arrives out of the deep past. Puran’s encounter with the pterodactyl presents the reader with superimposed cataclysms; with overlaid moments of extinction--the ‘great dying’ between the permian and triassic periods, in which the dinosaurs made way for mammalian life; and the sixth mass extinction event we are currently living through. Not only the cultural (or even literal) death of the Adivasi, the pterodactyl also marks the return of death on a truly monstrous scale. The biologist Edward Wilson puts it starkly: “The five previous major spasms of the past 550 million years, including the end-Mesozoic, each required about 10 million years of natural evolution to restore. What humanity is doing now in a single lifetime will impoverish our descendants for all time to come” (Wilson, 1993: 37). ‘Pterodactyl...’ describes a debt owed to the unfigured future; nothing less than a rupture in ethical time. It appears first as a “monstrous shadow” (Devi, 1994: 105); the shadow, if we follow Deborah Bird Rose, of lives which precede and which will follow our own: “In accepting that great fact that life always comes after the deaths of others,” Rose says, “we understand ourselves to be in the shadow, and also in the debt, of those who came before” (Rose, 2013, 2). As the incarnation of ecocide, the pterodactyl bears witness to the gift-relation which binds all species, as Rose argues, in “multispecies knots of ethical time,” in which life is gifted not only through sequence--the handing down of genetic material from one generation to the next--but also by uncountable coeval others which nourish each living creature throughout its life (Rose, 2012: 130-1). Rose argues we are even now in the midst of a planetary species-death, set in train by human action, the scale of which represents a rupture with the ethical time of the gift. This simultaneous cognisance of rupture

and process as coeval temporalities of ecological disaster applies not just to the Adivasi, but to all living beings caught in a time of death.

Nonetheless, for Clark, even this disaster--the gift's inversion--shares the qualities of the gift. Invoking Blanchot, he credits disaster with generating new modes of thought, opposing "the symmetry of an economy of truth and understanding" with "the radical asymmetry of an opening into the unknown and unknowable" (Clark, 2011: 74; see Blanchot, 1995: 5). As a figure of the gift the pterodactyl represents this same opening in which "the disaster is the gift" (Blanchot, 1995: 5), emerging in the gap between what is impossible and what is thinkable. But it also gives physical shape to a further aspect of the disaster in Blanchot's analysis, namely that what the disaster gives is time: "the time which is not at my disposal, the time beyond me and my living particularity, the lapse of time" (Blanchot, 1995: 89). Between the urgency of the emergency claim and the longue durée of the threshold catastrophe, the time of environmental disaster is this lapse of time, evident in its nonlinear and asymmetric configuration of causation and effect. Puran's first encounter with the Pterodactyl represents just such an impossible gift to the imagination, putting into focus that which cannot be comprehended but nonetheless must be engaged ethically.

In this respect then, the justification for retaining the perspective of the Anthropocene in the wake of Moore's critique becomes apparent. Whereas the Capitalocene exposes the social relations which make possible the environmental degradations of neoliberal 'development,' the real value of the Anthropocene is not, as is often supposed, that it puts human action at the centre of its reflections but rather that it fundamentally displaces 'man' altogether. Countering the "dark grandeur" which paints the Anthropocene as an expansion of collective human influence, Nigel Clark has exhorted the humanities to engage "the fully inhuman" aspect of global ecological crisis (Clark, 2014: 25, 28). The pterodactyl represents the gift as just such a form of provocation, "to imagine worlds both before and after us" (Clark, 2014: 27). In a sympathetic move, Kathryn Yusoff has suggested that the Anthropocene's chief conceptual value is as a "provocation," to the "geographic imagination." Thinking geologically means engaging with the fact that both the current ecological crisis and the capitalist expansion driving it are a kind of zombie event, in that what actually constitutes the agency described by the Anthropocene is "the material reanimation of [...] one extinction event feeding another" (Yusoff, 2013: 784). Yusoff's insight, puncturing the perception that the Anthropocene narrative is always and only concerned with a homogenized human subject, re-invests it with the potential both to address the "uneven geographies of fossil fuel consumption," and to exploit a "generative politics of minerality" in the Anthropocene's uncanny temporalities. The pterodactyl, standing for the uneven and nonlinear temporalities of the ecological damage which the road makes

possible, also stands for an encounter which goes beyond world-ecology's messy bundling of human and extra-human to the 'wholly inhuman'. Imagining as a form of gifting here demonstrates the connection between the gothic and the gift: just as the gothic exceeds the economy of empirical realism, the gift, as Gerald Moore observes, "exceeds any economy, and which is accordingly impossible, except where it occurs in the absence, or in the excess, of subjectivity" (Moore, 2011: 3). Yusoff and Clark's provocations ask us to embrace the excessive imaginative possibilities offered by the gothic, and in doing so to, as Clark says (borrowing from Claire Colebrook), put questions of political possibility in contact with the "'monstrously impolitic'" (Clark, 2014: 28).

Such is disaster's gift, opposing "the symmetry of an economy of truth and understanding" and "the radical asymmetry of an opening into the unknown and unknowable" (Clark, 2011: 74).

'Pterodactyl...' features a recurring image of this disjunctive relation: the asymptote, a line that continually approaches a curve without intersecting. Devi describes a society afflicted by incomprehension at all levels, both personal (a widower, Puran feels unable to connect with son and fiancé) and systemic (a "tremendous [...] suspension of contact" has opened up between the Adivasi and the rest of India: "There are no words in their language to explain the daily experience of the tribal in today's India [...] no words for 'exploitation' or 'deprivation.'" Devi, 1994: 102, 118). Relationally, politically, economically, we are told, the "asymptote is a contemporary contagion" (Devi, 1994: 102). This theme of divergent comprehension culminates in the pterodactyl's incomprehensible gaze, in the suggestion of an alternative way of 'seeing ecologically.' Puran understands nothing of the impossible creature's gaze. Repeatedly, we are told, its "eye says nothing" (Devi, 1994: 142). The asymptotic ontology of the encounter, however, contrasts with the pterodactyl as an unreal eruption of the 'geologic now,' an improper or excessive temporal convergence that demands to be read in ways that are nonlinear, and spatially and temporally open. Neil Lazarus has observed that both Devi's pterodactyl and Walter Benjamin's iconic Angel of History offer an "untimely," "non-human gaze" (Lazarus, 2013: 524). For Lazarus, this is most evident in the pterodactyl's death scene. We are introduced first to the perspective of Bikhia, "witnessing that their ancestor's soul embodied itself and flew in one day, and now it's leaving its form and returning," and that, concomitantly, the Adivasi "existence is freshly endangered" (Devi, 1994: 180). We are then presented with Puran's perspective, in a passage which Lazarus praises for its volatile focalisation:

Puran is witnessing his own futility. Having seen history from beyond pre-history, continental drift, seasonal changes after much geological turbulence, the advent of the human race, primordial history, the history of ancient lands, the Middle Ages, the present age, two World Wars, Hiroshima-Nagasaki, holding under its wing this entire history and the current

planetary arms race and the terror of nuclear holocaust, it came to give some sharply urgent news. Puran, a modern man, could not read the message in its eyes. Nothing could be known, can be known. One has to leave finally without knowing many things one should definitely have known (Devi, 1994: 180).

His speculation regarding the final meaning of the pterodactyl's message--cultural collapse or eco-apocalypse--are ultimately fruitless; yet Devi's deft, sinuous focalisation "measures the limits of [Puran's] understanding," and his responsibility (Lazarus, 2013: 527). Recognising the limits of his own capacity to engage with the tribal structure of feeling, says Lazarus, enables Puran to "assess the social costs of what this understanding has bracketed and extinguished, and to glimpse how the centuries-old pattern of marginalisation and destruction might even now begin to be unpicked" (Lazarus, 2011a: 159). While the creature's death sees Puran and Bikhia resume their asymptotic relation and return to "parallel paths" (Devi, 1994: 182), Devi insists that both parties' understanding is equally valid--"the shadow of that bird with its wings spread came back as at once myth and analysis" (Devi, 1994: 193. My emphasis). Gayatri Spivak has stated that Devi scrupulously avoids judging these different registers, and "simply stages them in separate spaces" (Spivak, 1999: 145). But crucially, these asymptotic understandings of the pterodactyl, neither congruent nor incompatible, are presented as contrasting but coexistent temporalities: the open time of myth conflicts with the precarity of Adivasi existence, just as the pterodactyl's geologic reach frustrates Puran's effort to order and analyse. Devi thus stages asymptotic but coeval spaces of understanding the irreal temporalities of ecological crisis.

Lazarus states that the pterodactyl's gaze, like Benjamin's angel, "exceed[s] and baffle[s] [...] 'history'" (Lazarus, 2013: 524). The pterodactyl also, I suggest, negotiates the tension between the normalisation of a threshold disaster and the dehistoricization of an emergency claim. Seeing ecologically therefore involves also reading the story's uncanny untimeliness according to another recent interpretation of Benjamin's angel: Rose has proposed the angel's grief is a corollary of "the howling of [all] living beings in a time of death" (Rose, 2006: 67). The angel and the pterodactyl baffle history, then, because in the jaws of another mass extinction event ethical time has been ruptured; in response to which the angel's howl--and the pterodactyl's eyes--call us back into connection with ethical time (Rose, 2006: 77). Devi's pterodactyl arrives as a gift-provocation to the imagination; an incursion of the impossible-but-thinkable gift of life through an encounter with the wholly, monstrously inhuman. Its presence, to adapt Clark, "require[s] us to connect the questions of political possibility with the dynamics and the intransigence of vast domains that are themselves recalcitrant to the purchase of politics" (Clark, 2014: 28); thus inviting readers both to reflect upon

the constructedness of historicized environmental crises, and to think beyond temporalities of rupture and normalized disaster to the nonlinear causes and effects of anthropogenic climate change. Puran is reluctant, indeed feels it inappropriate, to handle the pterodactyl: “who can place his hand,” he wonders, “on the axial moment of the end of the third phase of the Mesozoic and the beginnings of the Cenozoic geological ages?” (Devi, 1994: 156). In one sense, this expresses exactly the conundrum of the Anthropocene, the problem of engaging imaginatively with deep time. Yet it also conveys his anxiety that, as a denizen of both modern India and of “the present” which has “invaded and desecrated” the forest (Devi, 1994: 161), Puran’s fingerprints are all over the pterodactyl. ‘Pterodactyl...’ demonstrates that to realize the potential in ecogothic writing to show a way out of the systemic binds of the Capitalocene, we must engage with the gift of the Anthropocene and discover anew the indebtedness of life to the ‘monstrously impolitic.’

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