## Towards the Cli-Fi Historical Novel; Or, Climate Futures Past in Recent Fiction

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Almost a decade ago now, Fredric Jameson published a chapter on the historical novel that made at least two startling claims. He argued that historical fiction is both "assiduously practiced" and "impossible" (Antinomies 260), and he insisted that "the historical novel of the future . . . will necessarily be Science-Fictional inasmuch as it will have to include questions about the fate of our social system, which has become a second nature" (298). These two assertions are closely related. It's precisely because our social system has become "second nature" that the genre appears "impossible," and it's that apparent impossibility that makes science fiction necessary. The conceptual links across these assertions are, however, more surprising and, hence, more interesting than may at first be evident. I want to begin by explicating the claims in some detail. Only then will it be possible to extract what seems to me indispensable in Jameson's understanding and to show how two contemporary fictions—by Matt Bell and Amitav Ghosh—echo yet depart compellingly from that understanding.

The outlines of this exploration can be sketched in advance. Jameson's account of the historical novel's (im)possibility is especially valuable for the way it links the genre's vocation to the *temporal* dilemmas of late capital. A literary mode remains vital, for him, only when it symptomatizes the underlying, determining structures of social life while providing a mediated refraction of those structures that lays bare the possibility of organizing the world differently. In the era of late capitalism, this second gesture depends on a genre's capacity to forge a new relationship to *time*. Jameson contends not merely that this era is characterized by an impoverishment of historical thinking, but also that the impoverishment is itself an effect of late capitalism's reduction of

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the present to a state of self-identity—its evisceration of an experience of time in which each present could be grasped as replete with traces of temporal otherness. A genre committed to the representation of history cannot avoid confronting this reduction. It will have to take up and make central the aim of unsettling a present that late capital has detemporalized and, so, help us retrieve from that present the ghosts of a hitherto disremembered past and a presumptively foreclosed future.

For reasons I shall discuss, however, Jameson is unable to see how this retrieval also demands a new recognition of the externality and temporal modalities of *nature*. That recognition is a defining feature of a range of contemporary historical novels focused on global climate change. The two to which I turn are Bell's Appleseed (2021) and Ghosh's Gun Island (2019). These novels suggest that the literary apprehension of what Jameson calls the "fate of our social system" requires a historical fiction that reveals how that system risks annihilating any and all human futures (that is, all "fates"). This apprehension requires a transfiguration in the genre that grasps how the present's delusion of self-identity undergirds the processes of capitalogenic climate change. To open our present to the pasts and futures that it both harbors and forecloses, I contend, is to breach that present with the temporalities of a nature that capital pretends to have absorbed into the homogeneity of our posthistorical present.<sup>2</sup> The historical novel must, in this sense, if it is to rise to the challenge of our times, be not just science- but climate-fictional.<sup>3</sup>

The forms involved in this transformation bear particular notice. While *Appleseed* retains a deep investment in science-fictional techniques and conventions, what makes both it and *Gun Island* unique is their rehabilitation of prenovelistic modes of story-telling. The modes are mythic in the case of *Appleseed*, folkloric in that of *Gun Island*, but in both cases their force lies in their activation of an expressly fabulous, suprarealist form of literary apprehension. The special purchase of such techniques on climate is linked to their assumptions about time, as we'll see. Here it is enough to say that, in the hands of Bell and Ghosh, the mythic-folkloric captures the temporalities of a nature persisting within and against the present's claim to postnatural self-identity. These forms introduce into our "now" the temporal residue of life-worlds embedded in the precapitalist metabolisms of nonhuman nature—worlds sufficiently alien to our own that they can crack open and estrange the world from us.

1

The relevant arguments in Jameson are as follows: we live in an era when loads of historical novels are being written, enough that it makes sense to say that the genre is today "assiduously practiced." But, almost none of those are authentically historical because almost none confronts directly the constraints on historical thinking imposed by our present. Their forms are "arbitrary" rather than "necessary." They treat the past as more or less immediately given data, as raw material that individual authors can unproblematically select from and "work up," confident in the belief that research and imagination suffice to illuminate not merely key events of the past but the inner, systemic logic of the forces governing those events. The truth, for Jameson, is rather different. Ours is an age in which this kind of access to history ceases to be possible. The era of late or post-Fordist capital eradicates from the present all traces from the past and intimations of the future. That era obliterates the heterogeneities that used to make historical thought possible by revealing that no present is ever fully identical to itself. As Jameson puts it, this is a period in which "all negativity has been tendentially reduced and extirpated," where "not only . . . the distances [once] maintained by . . . 'critical theory,' but . . . the temporal . . . gaps left by the past and the mirages fitfully generated by the future" have been eradicated and foreclosed. The result is that we now inhabit "an absolute reduction" of experience "to the present . . . and a mesmerization by the empirically and sensorially existent" (Antinomies 300).<sup>4</sup>

It follows from this that what most historical novels traffic in is not history at all. It's the prepackaged, always already commodified image of "pastness." It's the reified signifiers of past eras and of the historical logic underlying them, which open onto no real otherness because they acquiesce to a present bereft of ghosts and are themselves derived from that inexhaustible storehouse of images, the prison-house of postmodern representation. Authors are of course free to extract, refashion, and convey such images to us in books, but we should then acknowledge that their fictions don't answer the representational imperatives of our present. They do not result from an author's confrontation with the totalizing omnivorousness of post-Fordist capital, nor do they grasp how such a confrontation is the condition for the only kind of aesthetic freedom worth having. These are, in short, novels that evade the challenge uniquely posed to the historical imagination by the era of late capitalism: the challenge of freeing us from the somnambulistic present by developing forms that wrest from it the smothered historicity of history itself.

It's at this point that both the category of second nature and the necessity of science fiction enter the picture. The global triumph of the commodity form in the years since 1970 has meant that the reduction of experience to an emaciated present has been so thoroughly naturalized that it appears to be "just the way things are." That is of course what Jameson means with the Lukácsian term

"second nature": the social world that human beings have wrought appears to them as natural, permanent, unquestionable, and insusceptible to change. 5 For we are, on one hand, "constantly smashing, replacing and leaving behind . . . the 'natural,' irrational and actually existing" world, while on the other, we "erect around [ourselves] in the reality [we] have created and 'made,' a kind of second nature which evolves with exactly the same inexorable necessity as was the case earlier with the irrational forces of nature" (Lukács 128). This diagnosis lies at the heart of Lukács's theory of reification, some version of which, as Jonathan Crary has argued, must remain central to "any understanding of global capitalism and technological culture" (Crary 99). What gives Jameson's version special force is that he tethers it to the temporal issues raised so far. Our social system's petrification into a kind of second nature includes as a necessary component the foreclosure of the present's historical alterities. In the words of Crary, whose 24/7: Late Capitalism and the Ends of Sleep (2013) can serve as an extended gloss on this aspect of Jameson's work, it is a world characterized by the "eradication of shadows and obscurity and of alternate temporalities . . . a world identical to itself . . . and thus in principle without specters" (19). The authentically historical novel will then be one that estranges this self-identical "now" to open the possibility of other worlds lurking within but obscured by it.<sup>6</sup> Its fundamental function will be not so much to depict the past as to unsettle the present. As Jameson writes elsewhere, such fiction will have to develop forms that "rattle at the bars of our extinct sense of history, unsettle the emptiness of our temporal historicity, and try . . . to reawaken the dormant existential sense of time [through] the electro-shock of repeated doses of the unreal and the unbelievable" (qtd. in Anderson).

The genre most amenable to this project is, for Jameson, science fiction. But, here I should make explicit a dimension of his argument left unthematized till now. If the historical novel is to be science-fictional, this is because, in Jameson's view, the sci-fi genre is uniquely able to crack open the present with intimations of the future (not just the past). It poses the question of "the fate of our social system," as he puts it in the passage with which I began. No fictional historiography can afford any longer to evade this question. The reason for this is perhaps less clear than I have so far acknowledged, however. One can at least imagine historical fictions that disturbed the temporal closures of our present with reference entirely to releasing occluded temporal remnants from the past. Is the requirement that such fiction explore the future an effect of the depths to which commodification and reification have colonized not just what is but what has been (so that we need historical writing that can intimate a future beyond these processes)? Or is it that this social

system poses unique, unprecedentedly existential dangers to the very possibility of futurity (so that historical fiction must confront the end of the world that Jameson elsewhere suggests is easier to conjure than the end of capital)? My wager is that the latter is indeed the case. The eradication of temporal-historical traces from the present is one effect of a capitalism that threatens any and all futures, any and all social systems precisely because the commitment to limitless growth and the ceaseless commodification of everything require that capital destroy the natural ecosystems that alone sustain human life on this planet. The problem Jameson actually intuits is thus one of capitalogenic climate change. It is, perhaps, immanent to his essay's inner logic that the historical novel must today aspire to be climate-fictional.

Jameson never quite says this himself because he believes that late capitalism has succeeded in permanently severing us from nature. "Postmodernism," he writes, "is what you have when the modernization process is complete and nature is gone for good" (Postmodernism ix). My argument is that we can and should resist this conclusion. Just as the ghosts of the past and of alternate futures can still be conjured by literary forms sufficiently forceful to "rattle at the bars of our extinct sense of history," so, too, in the case of nature. Literature can provide us with forms that renew our sense of the "otherness" of the natural world and, hence, ignite our capacity to imagine a social system that honors the limits imposed by nature and counters its ongoing degradation. Nor does this mean evading the challenge of recovering and releasing from our present the occluded residues of futures/pasts. An attention to global warming may in fact provide an exceptionally compelling route to such recovery. For, as Andreas Malm has argued, "Wherever we look at our changing climate, we find ourselves in the grip of the flow of time." The "effects" of the "running carbon cycle" are "always delayed" since "[i]t takes time before a certain quantity of CO<sub>2</sub> emissions is realized as a corresponding amount of warming, and before that warming takes its full toll on the ecosystems" (Fossil 7). Global warming is thus, on one hand, "'seriously backloaded": the present registers a rise in temperature whose genesis is in the historical past; yet, on the other, such warming is "substantially deferred," inasmuch as "the cumulative effects of current emissions" will only fully arrive in the future. The result is that climate change is "a messy mix-up of time scales . . . in an elevated sense of the term, every conjuncture now combines relics and arrows, loops and postponements that stretch from the deepest past to the most distant future, via a now that is non-contemporaneous with itself" (8).

I have argued elsewhere that claims like these place Malm's arguments in an antihistoricist materialist tradition that stretches from Ernst Bloch and Walter Benjamin to Kate Soper, John Bellamy Foster, and Crary (Forter, "Nature"). In the case of Malm, the tradition's emphasis on nonhomogeneous time is wedded to a profound ecological vision that sees climate change as symptomatizing a historical truth (not a hauntological one) about the present's nonidentity to itself. The mode of temporality revealed by global warming is, for him, "a twisted, multiplex temporality" (*Progress* 6) in which suspended particulates from the past inhabit the present and charge it with premonitions of a historically extrapolatable future. Though there are obvious differences, Malm's arguments also align with some of the most urgent claims in Crary's book. Crary aims to retrieve a set of rhythms and temporal modalities proper to the biophysical world—emblematized for him by sleep whose colonization by digital capital is part and parcel of "the biocide underway everywhere on the planet" (100). "Sleep's anomalous persistence [in the present] has to be understood in relation to the ongoing destruction of the processes that sustain existence on the planet," he writes. "Because capitalism cannot limit itself, the notion of preservation or conservation is a systemic impossibility. Against this background, the restorative inertness of sleep counters the deathliness of all the accumulation, financialization, and waste that have devastated anything once held in common" (128). This reclamation of the natural against a world that hubristically trumpets its obsolescence provides an indispensable supplement (and correction) to Jameson's diagnosis of our present. To put the case bluntly—for both Malm and Crary—nature not only is not "gone for good" but it also becomes in late capital, paradoxically enough, the uncanny vehicle for *de*naturalizing the social world.<sup>7</sup>

2

Bell's *Appleseed* is an extended interrogation of this (hetero)-temporal element of our "now." The novel permits us to make two large points in the context of the frame laid out so far. First, it responds to Jameson's exhortations by combining the historical with the science-fictional. Its three main plot lines concern (1) the devastating expansion of proto-capitalist agriculture across the Ohio frontier around 1800 (this strand is focused on the past and organized around the historical figure of Johnny Appleseed), (2) a near future in which climate disaster has fully ravaged the planet and a global corporation called Earthtrust both rules the world and attempts to solve the crisis by geoengineering the atmosphere (that is, injecting it with aerosols to induce artificial cooling), and (3) a farther-future, around thousand years from now, in which that experiment has

disastrously failed, ushering in a new Ice Age.<sup>8</sup> To show that these disparate moments have a coherent, internal, historical logic, the novel reveals how the second and third moments are saturated with the ghosts of the previous eras, while the first and second proleptically echo the historical moments to come. Appleseed in this way reintroduces into each present the temporal heterogeneity whose obliteration has extinguished historicity and historical thinking in our day. That reintroduction unsettles each "now" with the inassimilable, spectral residues of a nonimmediate past and future.

Second, the novel allows us to grasp what Jameson's construal of late capital as postnatural prevents him from seeing. For Appleseed links these historical heterogeneities to a persistence in the late-capitalist present of an unvanquished nonhuman nature. It does so through what I suggest is a revelatory juxtaposition of human-historical with mythic time. Part of the interest of this juxtaposition is that it counters the by-now consensus view that myth is necessarily a reactionary form, that it always and everywhere dehistoricizes the past by papering over historical contradictions and beautifying exploitation, inequality, and hierarchy. In Appleseed, the recourse to myth is a way of insisting on a non-linear, recursive temporality that corresponds to the iterative rhythms of nonhuman nature and showing how this form of time has never truly been supplanted by the linear temporality of human history. Human history is instead inhabited by the radical alterity of a "natural" time that it is premised on having surmounted.

To understand this form of time, it will be necessary to introduce a plot element that sits uneasily with the three strands I've mentioned so far. It is not itself a "strand" at all: it consists of a solitary chapter that goes exactly nowhere, in that, unlike the other chapters, this one isn't incorporated into any of the novel's three main narratives. Perhaps a better metaphor would be an involuted or ungerminated seed: an inassimilable kernel of material whose potentialities irradiate everything while it—itself—persists unmetabolized by the teleologies, tensions, and resolutions of plot. In this sense, the very inclusion of this chapter enacts the disturbance to historical/narrative time by myth that it is also about.

The chapter is called "The First Faun: The Mythic Earth," and in it, Bell retells the Orpheus myth from the perspective of the singer's uncle. That uncle is a faun-that is, a creature on the border between human and nonhuman nature. Bell inserts him into the myth as the violator of Eurydice and cause of her death. The story itself is self-consciously mythic. It is recounted in paragraph-long sentences replete with paratactic and self-replicating clauses, separated by semicolons and saying over and over again: this is a story in which time both passes and eternally repeats. Everything is

always already happening. The nymph Eurydice is dying even as she's being born. The faun is lusting after her when he's also dancing with her in presexual innocence. Orpheus is cutting the head off his uncle and keening his impossible lament—killing, mourning, and versifying—even as he's feasting with the faun and toasting together his wedding vows.

The chapter goes on to trace how the faun has now been excised from the myth, flung into the unidirectionality of historical time and human finitude:

[T]his time, as the faun reaches the climax of his myth . . . instead of repeating, the story *ends*—and in its ending the faun is only broken and screaming and painfully alive, bereft of every horror and help born of simultaneity, ripped from the endless now's complicated joy.

Now the wedding host *flickers*, now the faun's niece and nephew *flicker* too, and through the strobing first note of the nephew's song come three other guests . . . the three witching women who are sometimes called the fates and sometimes the furies.

Wordlessly the three witches measure the faun's punishment against his crime. Without explanation they cut from him his misdeed, then him from the story. Against his screaming pleas they stitch up what is left, leaving the faun's shape broken, leaving his simultaneous self adrift into linear time. (145)

The passage charts this character's fall out of mythic time and into linear-historical time. By linking the first of these to Orpheus's story, it thematizes the (half-)human betrayal of an Orphic principle of wounded plenitude and nonfinality: a mode of relating to the natural world that's anti-Promethean because it is based in song rather than command, immanent to earthly being rather than perpetually self-transcending, and able to (for exactly these reasons) leave the natural world free to animate itself in harmonious reply to the human.<sup>10</sup> (Bell is concerned less with Orpheus's visit to the underworld than with these elements of song, immanence, and natureanimation.) Released into human time as punishment for betraying this principle, the faun is simultaneously gifted with agency and the burdens of choice that follow from it. But, in this time, his creatureliness is also (over time) tamed, domesticated, humanized out of existence. The central burden of *Appleseed* is then to reinscribe both Orpheus and the faun into the "plot" of human history and, especially, the history of capitalist modernity, but to do so as figures for the underlying, inassimilable temporality that human projects cannot absorb but nonetheless deny at their peril.

Two examples help to clarify this point. First, in the properly "historical" strand of the novel, John Chapman (aka Johnny Appleseed) is simultaneously split into two and given a prehuman form. Instead of one historical figure, that is, the book depicts two brothers, Nathaniel and Chapman. This doubling is part of a larger critique of bourgeois identity that extends to the reappearance of Orpheus and the faun in each of the main plot lines, a method designed to accentuate temporalities and modes of "identity" whose iterative character disputes the singularity and finality of human plots. The second of these figures is, moreover, only partially human. Bell portrays him as a faun, the nineteenth-century reincarnation of the creature liberated into linear time in the passage just discussed. This depiction has the effect of cognitively estranging the historical record by grafting prehuman nature onto the very form of the human-historical. It reposes the problem of nature's betrayal by inscribing the natural into the human and requiring the resulting creature to grapple with this dilemma. That creature increasingly does so by identifying with his human attributes. He subordinates his creatureliness to his brother's theologically sanctioned, protocapitalist ambitions, not merely accepting but abetting conquest, acquisition, and increase, furthering Nathan's domestication and rationalization of the land in the name of future profit. These are motives that the faun himself understands to be at odds with a different mode of relation: an "impartiality" that lets the wilderness remain autonomous from human designs and, thus, entirely "selfwilled" (110).

Because he betrays this principle, Chapman is visited by the three witches from the myth, who carry Orpheus's ever-singing head and demand that Chapman pay for his crimes. The singing head induces in him a vision that disorders and deranges time. He "sees [a] plot of land as it was when the family who built it inhabited it," then "a sunlit future appears, the house gone. . . . The scene flickers" (148), Bell continues, as "[t]he three witches advance through the rain and the fire, the scene warping around them, past and present and future sliding across one another." Chapman is compelled by these creatures to witness a future bereft of nature and dominated by steel, concrete, and the deafening "screech" of trains: "[B]efore the screech fades he sees the forest . . . completely intact, as it was in the years before the homesteaders arrived here, or else how it'll regrow many years from now, after their absence. Then the forest vanishes" and "every world [is] momentarily lost within a howl of blowing snow." The witches who inflict this vision "advance through every time Chapman sees at once, placing their steps in whatever moment suits them best, holding the crying head [of Orpheus] aloft, his song unsettling the way" (149).

There's a great deal one could say about this extraordinary passage. What I wish to emphasize is that Bell invites us to link an *experience of nonsynchronous time* with both the *persistence of myth in the present* and the *flickering eruptions of sinned-against nature*. Myth persists in the postmythic present in the figures of the witches and the keening head of Orpheus, and the central effect of this persistence is a shattering of homogeneous time that discloses both the disasters and the redemptive promise secreted in that homogeneity. The temporal flickerings inflict on the faun a vision of past and future crimes while also tracing the evanescent outlines of some alternative future world. That is a world in which human settlements have been "unsettled" by Orpheus's inassimilable lament and in which the forest becomes "intact" again because the homesteaders who once settled it will have been (more or less permanently) removed.

It's this apocalyptic-utopian possibility that my second example explores. The example comes from the narrative strand of the far-future—that is, the Ice Age precipitated by the corporate-capitalist effort to geoengineer the future. In that future, it appears at first that there's only one living "human" left. This is a 3-D printed faun named C, who has been programmed to pursue just one goal: to scour the surface of the Ice and the Below for biomass to use for his destructive reprinting. The entire purpose of living, that is, is to scrape together enough organic material to initiate the suicidal process of dissolving himself into that matter for reprinting by the Loom. The telos of the human has thus become a ceaseless and desperate reproduction of what can scarcely any longer be called "selfhood"—the recursive retrieval of a life that is not quite "human" anymore—over and over again, ad infinitum, for as long as possible into the future.

But then, one day, there's a glitch in the Loom's weave. The version of the faun named C-432 recycles himself with the biomass of a tree scavenged from the Below. He emerges as C-433 and, very quickly, an apple tree begins to sprout from and graft itself into his body. The exhilarating novelty of this sprouting compels him to reject the voices of the "remainder" within him—the conglomerate voices of all those C's he was in the past and whose recycling has gone into his making—which direct him toward no labor other than the ceaseless self-reproduction of the "human" described above. Instead, he follows the voice of O, the disembodied digital reproduction of Orpheus's disconsolate dirge. That voice—wordless and incomprehensible—nonetheless encourages him to choose submission to the tree's imperatives and become its human soil, while also seeking out a way to let it live independently of him. The tree indeed comes in time to overtake C-433's body, before being cut from it and acquiring a separate, autonomous existence of its own. So it is that, there in the future, in a postnatural world of unspeakable barrenness, cold, and ruin—a world destroyed by the logic of capital but also persisting beyond it—the tree finds a way to become selfwilled for the first time in human history:

In the quiet that follows [the death of O] the ghosts [of humans] fade and flicker out too . . . and sometime after that last hour . . . there follows the unwitnessed clamor and glory of the Tree's apples thumping to the ground one after another, more furred apples than ever before rolling through the purple-blooded grass, each bright-gleaming fruit full of seeds, each seed flush with potential, carrying within it all the many trees and not trees coming next, enough living variety to one day spawn a newly sprawling splendor, a beginning born of a forgetting, not an orchard of human want but a forest set free, a forest endlessly desiring to plant itself a world. (460–61)

What is this but the novel's way of figuring the heterotemporal recurrence in the future of a disremembered, prehuman past? A tree that has been extinct for a thousand years is here and now able, against all odds, to flower again through the body of a faun; the seed of that long-dead past in the future allows both the faun and the novel itself to interrupt historical time with the postnatural nature of the nonimmediate past. This procedure in its turn yields a new type of posthuman "wilding": the novel closes with this vision of a wildness that begins with a forgetting of the human, to be sure, but one in which "a world without people" should be seen "as an allegory for a state in which people are agents of less catastrophic harm," in Anahid Nersessian's words (42). The wilding at issue begins, in addition, with a forgetting-remembering of the apple trees themselves, which once were but then were-not. The heterogeneity of nature's being-in-time abrupts into the continuum of history through this gap between the devastated past and the dislocated future—the gap when the apple tree was not. That gap releases a historical negativity that disrupts the present's reduction to itself that late capital enforces in part through its relentless self-promotion as postnatural. In resisting that reduction, Appleseed formally enacts its commitment to a new kind of fictional historiography. It takes into itself and sublates Jameson's insistence that historical fiction must henceforth be science-fictional. And, in doing that, it retrieves the seeds of utopian futurity from the material history of our present—even, and especially, from the climate-ravaged and inexorably destructive tendencies of that present.

3

Ghosh's Gun Island is, in one sense, quite different in its aims from Appleseed. Its narrative scope is more evidently global, spanning as it does Brooklyn, Kolkata, Los Angeles, the Sundarbans, and Venice, among other locations. This geographical reach reflects a different understanding of the inflection point or origin story necessary for historicizing the climate crisis: in Gun Island, the nineteenth-century frontier in Ohio is displaced by the colonial dynamics linking "the West and the Rest" (Europe and South Asia) in the seventeenth century. Such an emphasis is of a piece with the analyses Ghosh has developed in his well-known nonfiction writings on climate. In both The Great Derangement (2016) and The Nutmeg's Curse (2021), he has been at pains to differentiate his account of the climate crisis from those that emphasize capitalism above all (that is, from those that trace the crisis to fossil capital, in Malm's resonant phrase). Ghosh wishes to challenge the "hold of the economy on the modern imagination" and the corresponding focus on capitalism as the "prime mover of modern history"; he aims to elevate "geopolitics and empire" (Nutmeg 116)—colonialism and its race-based territorialism—to a place at least coeval with "abstract economic systems" (120) in the genesis of the current crisis.

The movement back to the seventeenth century is critical to this aspiration, as we'll see. But first, two observations: Ghosh's attentiveness to colonial dynamics is a welcome expansion of the analytical lens but should not be taken to mean that capitalism is not the main driver of global warming. While colonial domination seems indeed, as he contends, to have interacted with the imperatives of capital in complex and counter-intuitive ways—impeding the pace of atmospheric warming by preventing colonized and decolonizing societies from emulating the global north's industrial economies—it was still the particular confluence of class power, labor exploitation, the universalizing ambition of the value form, and the subordination of technological invention to the systemic necessity of unending growth that fatefully intertwined human beings with fossil fuels in the early nineteenth century. It is also this combination that makes a warming planet inevitable under capital (but not so under economies organized sustainably and aimed at curtailing growth). 11

My second observation is that Ghosh's category of the "unthinkable"—as in *The Great Derangement*'s subtitle: *Climate Change and the Unthinkable*—rhymes suggestively with a concept broached at the outset of my essay. Unthinkability is Ghosh's name for the enormity of the challenge posed by climate change to

conventional habits of thought, including literary thought. In this sense, it brings to discussions of climate fiction a variation on Jameson's contention about historical fiction. The latter genre is "impossible" for Jameson unless it becomes science-fictional; climate fiction is "unthinkable" for Ghosh, beyond sensationalized genre writing, unless it attunes itself to what he calls the "environmental uncanny." This term names a type of encounter that is perhaps the most significant way in which the unthinkable makes itself felt. It refers most broadly to experiences in which we become aware of "the presence and proximity of nonhuman interlocutors" (Great Derangement 30). These experiences are uncanny because they involve not the encounter with something new but a confrontation with disavowed knowledge: a disturbingly unsolicited, humbling reacquaintance with the unpredictability and sentience of nonhuman nature.

In Ghosh's view, the novel form itself is founded on a realism of the probable and predictable, such that the extra-ordinary/ improbable dimensions of nature have lain outside the genre's ken from the time it first distinguished itself from older, more fabulous types of storytelling. Environmental crises have in this sense always been "thinkable" for the novel only in the form of uncanny disturbance. But, the ravages of climate change have ratcheted up the stakes of depicting this uncanniness. "There is an additional element of the uncanny in events triggered by climate change," Ghosh writes.

This is that the freakish weather events of today, despite their radically nonhuman nature, are nonetheless animated by cumulative human actions. In that sense, the events set in motion by global warming have a more intimate connection with humans than did the climatic phenomena of the past. . . . They are the mysterious work of our own hands returning to haunt us in unthinkable shapes and forms. (Great Derangement 32)

The challenges faced by contemporary cli-fi are, in this context, considerable. It must do justice to how the incursions of nature today are not just "ordinarily" uncanny, but doubly so: they're uncanny in the sense already mentioned in that such "freakish events" compel an encounter with the disavowed powers of nonhuman nature, but they're also uncanny in the additional sense that these nonhuman powers have been decisively affected by human beings. We are today encountering "ourselves" in the strangeness of natural phenomena, which carry, now, for the first time in the planet's history, the mutant signs of the sociohistorical inscribed in their very being.

It's in this light that we can grasp the interest of placing Gun Island alongside Appleseed. My claim has been that these two books

signal something new and significant in our literary culture, a reanimation of historical fiction that hinges on the way the books transform the genre in the act of inhabiting it. They are authentically historical novels precisely because they're climate-fictional; their commitment to grappling with climate involves them in a Jamesonian unsettling of the present's claim to self-identity, which liberates traces of the past and future from the phenomenological stranglehold of late capital. That stranglehold concerns the production of a world that purports to exist "after nature" and "beyond time"—such that, paradoxically, nature and its distinctive temporalities become forces for reorienting the present by denaturalizing the social world. Appleseed performs this feat by grafting the sciencefictional onto the historical and stitching mythic time into homogeneous-linear time. Gun Island does so through what I shall show is an extraordinary extrapolation of the environmental uncanny.

The pivot point for this argument is the book's rehabilitation of fantastical forms. Like Appleseed, Gun Island retrieves for contemporary purposes a prenovelistic mode of storytelling—in this case, Bengali folklore—as a way of indexing a natural world and a mode of temporality that the realism of our dominant forms cannot compass. The tale through which it does so is a variation on a series of legends about merchants in Bengal, the most well-known of which is the story of Chand Sadagar (the Merchant named Chand). The legend tells of how that merchant "fled overseas in order to escape the persecution of Manasa Devi, the goddess who rules over snakes and other poisonous creatures" (Gun Island 6). It is, in other words, a tale that depicts the natural world as supernatural in its significance: the human being appears in it as a creature subject to the inscrutably powerful, inexplicably wrathful embodiments of animate nature. Yet, in the variant that comes to haunt Gun Island's protagonist, Deen, the central figure is not Chand Sadagar but "Bonduki Sadagar"—the Gun Merchant. His legend dates to the seventeenth century and has been memorialized at a shrine in the Sundarbans, the "tiger-infested mangrove swamp" that marks "the frontier where commerce and the wilderness look each other directly in the eye" or, put otherwise, "where the war between profit and Nature is fought" (9). There thus begins to emerge a pattern in which a legend literally enshrined at the border where Nature and profit do battle is also about the "persecution" of profit's ambassador by the forces of Nature. This legend accrues the temporal shape of discontinuous reprisals—it has lain "dormant for centuries only to be suddenly rejuvenated by a fresh wave of retellings" (7)—which is to say that its history is recursive. Any present in which it is told refers back to the nonimmediate past when it was last available for the telling.

Finally, the very meaning of this tale turns out to be inseparable from Deen's encounters with it. Manasa Devi's persecution of the Gun Merchant will allegorize the pervasive uncanniness of nature in an earlier era of climatic turbulence—the so-called Little Ice Age of the seventeenth century—but Deen's serial encounters with that tale are themselves accompanied by disorienting disturbances that disclose how he is repeating the story he's trying to interpret, even as his life is built on denying what the tale has to teach him.

The interleaving of these two stories—of Deen's plot with the Gun Merchant's legend—grounds the book's most compelling formal features. Almost all of the scenes in the present involve an enactment of the environmental uncanny as described by The Great Derangement: "[T]he mysterious work of [human] hands . . . return[s] to haunt [Deen] in unthinkable shapes and forms" (32). Yet, because the Merchant's story is also one of nature's supranatural revenge on the human, the present events uncannily echo events in the historical-legendary past. Gun Island's sense of uncanniness, in other words, comes from not only Deen's experience of nature as weirdly animate but also the way his story reprises the one he spends the book trying to interpret. The novel intends us to take these reprisals seriously, even literally. At a conference in L.A., for example, Deen hears a talk by a historian claiming that

The seventeenth century . . . was a period of such severe climatic disruption that it was sometimes described as the "Little Ice Age." During this time temperatures across the globe had dropped sharply . . . possibly . . . because of the reforestation of vast tracts of land following on the genocide of Amerindian peoples after the European conquests of the Americas. (135)

The speaker goes on to chronicle the effects of this sudden drop in temperature: cataclysmic earthquakes, volcanic eruptions on an unprecedented scale, millions of surplus, statistically significant deaths, bloody civil wars (England), the fall of dynasties (China), fires (Istanbul), drought, famine, rebellion, and a new wave of apocalyptic millenarianism. Amidst this litany Deen is struck by the fact that Bengal was of course subject to the same types of cataclysms in the seventeenth century; he "suddenly recall[s] the droughts, famines, storms and plagues that played so large a part in the [Gun Merchant's legend. Was it possible that the legend was born of the tribulations of the Little Ice Age?" (136). The answer is, of course, "yes," just as the answer is "yes" to the question of whether those who interpreted these events as portents of the end of the world were right: "Couldn't it be said that it was in the seventeenth century that we started down the path that has brought us to where we are now?

After all, it was then that Londoners began to use coal on a large scale, for heating, which was how our dependence on fossil fuels started" (137). Hence, the apocalyptic doomsayers of that era, along with millions of ordinary people, "appear to have sensed the stirring of something momentous: what they didn't allow for was that the story might take a few hundred years to play out. It has fallen to us, centuries later, to bear witness to the last turn of the wheel. And . . . the climatic perturbations of the Little Ice Age were trivial compared to what is in store for us now. What our ancestors experienced is but a pale foreshadowing of what the future holds!" (137–38).

I want to pause for a moment over this image of a "pale foreshadowing": it seems to me to suggest something profound. Ghosh is here inviting us to grasp a mode of time that repeats as it passes (hence, the past "foreshadows" the future) but intensifies as it does so as well (hence, the future is less "pale" than the past). This is a time that constellates, in the Benjaminian sense, rather than smoothly flowing, that contains within it heterogeneous traces of the nonimmediate past and future. Put in a slightly different idiom, Ghosh is intuiting that "multiplex temporality" of climate change referred to earlier by Malm: a time in which every "now combines relics and arrows, loops and postponements that stretch from the deepest past to the most distant future, via a now that is noncontemporaneous with itself" (Fossil 8). The passage also links this temporality to the cyclical logic of capitalist accumulation and the dynamics of colonial expansion. Hence the references to a "turn of the wheel" (Marx 915) and to land reforestation in the conquest of the Americas, the latter of which was critical to the "so-called primitive accumulation" (926) of capital described so memorably by Karl Marx and linked by him to the plunder of Africa, India, and the Americas. Capital and colonialism are, in this fashion, closely braided together in the passage—and both are placed in intimate relation to climate change and intensified reprisal. Gun Island encourages us to formulate the connections among these terms as follows: the environmental calamities induced today by fossil capital on a global scale do not so much "follow on" from the era immediately prior to our own as they repeat while intensifying the colonial capitalism and climatic disturbances of the seventeenth century. This process symptomatizes the latest stage in a dialectic between historical and natural being, which includes those elements of suspended particulates which make global warming "seriously backloaded" yet also "substantially deferred" (Malm, Fossil 7). Nature's uncanniness acquires in this manner the extraordinary weight of a sign of the historical. It reveals how the historical present is, in the deepest sense, nonidentical to itself since the eruptions of nature in the twenty-first century contain traces of an estranged human agency

that originates in an earlier epoch whose logic our own age repeats and intensifies. 12

It would not be hard to demonstrate how trenchantly Gun *Island* treats this intensified repetition: Ghosh devotes several pages near the end to a disquisition on how racialized migrancy and the contemporary "crisis of borders" are generalizations within global capital of the border-transgressing and flesh-commodifying logics of the Atlantic slave trade and the trade in indentured servants in the Indian Ocean world (303–5). The novel also concludes with a scene in which a boat carrying brown and Black migrants, dispossessed by the twin legacies of colonialism and climate change, succeeds, through the magical intervention of animals, in securing the protection of the Italian state (306–7). Considerations of space prevent me from pursuing these points here. Instead, I'll conclude by showing how a new conjugation of the nonhuman with time emerges when the macro-historical reprisals just described are themselves repeated at the micro level of individual "identity."

The point must be tied to relevant plot details. About midway through the novel, Deen feels compelled to travel to Venice after learning that the word *Bonduki* means not only gun but *Venice*. The Gun Merchant is thus really the Merchant Who Went to Venice, and Deen quite literally follows in his footsteps when he, too, goes to that city. Once there, he begins for the first time to feel that he is the Merchant, that in ways not yet comprehensible to him, he's repeating that character's life as his own. He develops "the strange feeling that [his thoughts about the Merchant] were no longer thoughts but memories" (226). He visits an exhibit on the Hypnerotomachia Poliphili and remembers that this book is about a man who dreams he has a dream "at once terrifying and erotic, filled with fantastical creatures," in which "voices and messages emanate from beings of all sorts—animals, trees, flowers, spirits. . . . As this started to come back to me," Deen muses, "I had an uncanny feeling that . . . I was being dreamed by creatures whose very existence was fantastical to me—spiders, cobras, sea snakes" (227). He notices resemblances between illustrations in the Hypnerotomachia and the inscriptions on the Merchant's shrine and begins to suspect that the Merchant himself had leafed through these very pages. Then, he comes upon an image of "writhing snakes and all doubt disappeared. I was sure of it, sure that I, like the Gun Merchant, had entered the dreamtime of the book" (228).

These details are remarkable partly for how they extend the sense of an uncanny identity between Deen and the Gun Merchant; they contribute to that aspect of Gun Island's project that chimes with Appleseed's effort to trouble the singularity and finality of individual identity. Perhaps more interestingly, the passage mediates the two characters' identity through what Ghosh calls "the dreamtime of the book." It links them precisely in and through the temporal fabulations (time + dream) of nonrealist representation. Deen knows he is replicating the Merchant's life, in short, because he finds that they've both been conscripted into the same fantastical story. But, this is just a way of saying that the point here is as much about form as content. The "fabulous" narration that Deen inhabits, prior to and regardless of any encounter with the *Hypnerotomachia*, is, of course, Gun Island itself. That book takes its own form from the legend of the Gun Merchant within it. To say that Deen repeats the Merchant's life as his own is thus to say that the narrative he inhabits has the same fantastical shape as the legend that Ghosh recounts then takes up as his form. The novel's wager is that such forms can perhaps alone model for us and help us contest the historical processes that render nature so devastatingly uncanny in the present.

Strikingly, Gun Island suggests that the forms at issue are forms that have not been authored by humans at all. Deen is "being dreamed by creatures whose very existence [is] fantastical" to him. He is, in other words, the imaginative product of beings whose mere existence strains rational credulity. The point the novel is making here is once again (in part) about form. The fantastical, the magical, the prenovelistic and folkloric: these modes of narration are, in Gun *Island*, the province of nonhuman nature. The faculty of fabulation is not a "specifically human" faculty at all; it is "the last remnant of our animal selves . . . [a] vestige left over from a time before language, when we communicated as other living beings do" (141). Stories are best seen as the dreamlife of animals (at least such stories as this novel prefers). They're the medium through which the human is dreamt into being by the prehuman and through the appropriation of which humans alone—and only secondarily—lay claims to the powers of language.

Deen thus enacts something else of significance when he repeats the Merchant's story as Gun Island. A more primordial "natural history" has all of these in its grip. This is a history whose temporal register underlies and informs, but may also explode, the history of intensified reprisals discussed above. It is that stratum of history containing the "vestige" of our "animal selves" from which there issues a storytelling at once pre- and Ur-linguistic. That type of story is inscribed from the start in both Gun Island and the Merchant's legend, but it becomes legible only by way of a dialectical reversal. It is what happens when one "slips" through an invisible "membrane" and ceases to see things from the point of view of the Merchant (or of Deen) at all. One then becomes aware, perhaps, of the plight of Manasa Devi. Her "pursuit no longer seem[s] to be a story of an almost incomprehensible vindictiveness but something

more fraught, and even tender" (166). It is the story of an effort to negotiate across the human/nonhuman divide, to serve as a "voice carrier" between species that have "no language in common and no shared means of communication." Viewed in this light, the human refusal of her request for obeisance is a scandal of planetary proportions. If the Merchant "and others like him . . . were to disavow [the goddess's] authority then all those unseen boundaries would vanish, and humans—driven . . . by the quest for profit—would recognize no restraint in relation to other living things" (167). The suggestion here is that the systemic pursuit of profit that has fueled our planet's cataclysmic warming can be counteracted only through the equally systemic submission to limits and the transfiguration of the human itself by the prior conjurations of nonhuman nature. We will have to let ourselves be dreamed anew by the uncanny creatureliness that precedes and exceeds us. Such a submission will unsettle the present with both the vestige of our nonimmediate past and intimations of a disjunctive future. When the deep time of the natura-historical negates yet preserves the historical time of intensified reprisal, we might say, then and only then will a new universality of the planetary be born.

4

I have focused in the body of this essay on the concrete specificities of Appleseed and Gun Island—on the details that make each of them unique. This has involved a type of attention that withholds all but the most minimal signposts indicating how the novels relate to each other and to the genre of historical fiction more generally. It has meant suspending the taxonomic gestures that readers of an essay like this one—which is, after all, about genre—might rightfully expect. My reasons for this are broadly Adornian, and I would be prepared to defend them on those grounds. 14 Here, however, by way of conclusion, I'd like to offer four postulates that can serve as both a summing-up and an appeal to the taxonomically inclined. All of these points are distillations of the arguments in this essay's body, and each follows from my initial proposal to reroute Jameson's thesis on the historical novel through the category of climate fiction. With those points in view, we might say this:

The historical novel of the future (which is also to say our present) will have to be climate-fictional and will be characterized by some combination of

1. Forms that trouble the self-identity of the present to reveal the heterogeneities lurking within it. These forms will likely be mythic or folkloric—prenovelistic in their epistemological assumptions—but will at

When the deep time of the natural-historical negates yet preserves the historical time of intensified reprisal . . . then and only then will a new universality of the planetary be born.

- any rate be sufficiently nonrealist to enact the retrieval of an experience of nature whose uncanny force denaturalizes the social.
- 2. A vision of history as unsettled by the biophysical rhythms and temporalities that our present historical models preclude, or else by intensified reprisals rather than linear-homogeneous unfolding.
- 3. A consequent diminution of the singularity and uniqueness—and even the finality—of both historical events and individual identity.
- 4. An effort to distill and listen to the "language" of nonhuman nature, which these books figure as antecedent to the human and (they propose) in some sense "speaks us." This distillation of nonhuman language is likely to be the site of the most apocalyptic-utopian energies in the genre, for reasons that my essay has tried to explore.

## **Notes**

- 1. This understanding is assumed rather than explicitly asserted in Jameson's chapter on the historical novel, but it has animated most of his writing on literature since *The Political Unconscious: Literature as a Socially Symbolic Act* (1981).
- 2. See Jonathan Crary for an excoriating critique of the temporal aspirations of late capital.
- 3. Since I have written elsewhere on the powers of one type of non-cli-fi historical fiction, this is perhaps the place to note that the current arguments would require a rethinking of some central claims in my *Critique and Utopia in Postcolonial Historical Fiction: Atlantic and Other Worlds* (2019).
- 4. These assertions accentuate one dimension of Jameson's claim that postmodernism is characterized by a "breakdown in the signifying chain" that "reduce[s] [subjectivity] to an experience of pure material signifiers, or, in other words, a series of pure and unrelated presents in time" (*Postmodernism* 26).
- In recent ecocritical theory, the term "second nature" has taken on meanings distinct from the Lukácsian ones I employ here, referring especially to how the natural world has been permanently altered by human activity. This new usage is useful inasmuch as it points to the processes by which nature has been reified-its "artifaction" in and through what Marx calls "sensuous human activity" ("Theses on Feuerbach" [1888] in The German Ideology: Part One: With Selections from Parts Two and Three and Supplementary Texts, ed. C. J. Arthur, [1970], p. 121). But, the conceptual expansion is often embedded in assumptions that are considerably less helpful: the assertion that nature and society are outdated categories because nature has "always already" been affected by human beings, and hence, there is no nature that isn't constructed by and hybridized with the social. See Bruno Latour, We Have Never Been Modern (1991); Neil Smith, Uneven Development: Nature, Capital and the Production of Space (1984); and Noel Castree, "Marxism and the Production of Nature," Capital and Class, vol. 24, no. 1, 2000, pp. 5-36. These assumptions inhibit the effort to understand climate change historically. They imply that to affect a thing (nature) is the same as to make or "produce" it and, so, to abolish its autonomous existence; they thereby make it difficult to distinguish between changes to nature caused by an agent separate enough to be called human and changes internal to

nature's own metabolism. This is to say nothing at all of the difficulty this view has distinguishing between the alterations to nature caused by a specifically capitalist organization of society and those caused by societies prior to the fateful subsumption of industrial power to the commodity form. See Malm's convincing argument for resisting these kinds of claims (Progress 52-7).

- 6. Part of my aim here is to particularize through the category of time Darko Suvin's field-defining view of sci-fi as a genre that pursues "cognitive estrangement" (24-9).
- 7. I've been influenced in what follows by a number of studies in the relevant genres. On historical fiction-and beyond Jameson-see Hamish Dalley, The Postcolonial Historical Novel: Realism, Allegory, and the Representation of Contested Pasts (2014); Jerome de Groot, The Historical Novel (2009); and Susan Strehle, Contemporary Historical Fiction, Exceptionalism and Community: After the Wreck (2020). On sci-fi, Suvin, Metamorphoses of Science Fiction (1977); Jameson, Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions (2005); and Sherryl Vint, Science Fiction: A Guide for the Perplexed (2014). On clifi, Adam Trexler, Anthropocene Fictions: The Novel in a Time of Climate Change (2015); Andrew Milner and J. R. Burgmann, Science Fiction and Climate Change: A Sociological Approach (2020); and Shelley Streeby, Imagining the Future of Climate Change: World-Making Through Science Fiction and Activism (2018).
- 8. The geoengineering project refers to an actual aim of some contemporary scientists and policymakers—in David Wallace-Wells's words, the aim "of suppressing global temperature with a program of suspended particles" or (more bluntly) of "polluting the air on purpose to keep the planet cooler" (117). This aspiration was partly inspired by the observation that the ash emitted by volcanic eruptions such as that of Mount Pinatubo, the Philippines, in 1991, had dramatic cooling effects on the atmosphere. Not incidentally, the scientists in Appleseed call their geoengineering project Pinatubo.
- 9. I am not denying the value of this conventional view—in both its Marxist and its poststructuralist forms, it has been an indispensable basis for critique. See, for example, the chapters on "Pastoral and Counter-Pastoral" and "Golden Ages" in Raymond Williams, The Country and the City (1973) and "Myth Today" in Roland Barthes, Mythologies (1972). My point is that the realities of global climate change may signal the onset of a time when this critique has outlived its usefulness.
- 10. See here the extraordinary if no longer quite fashionable recuperation of Orpheus (along with Narcissus) in Herbert Marcuse's Eros and Civilization: A Philosophical Inquiry into Freud (1955).
- 11. Ghosh's nonfiction writings on climate are thus most convincing when they articulate colonialism with capitalism rather than seeking to displace the latter with the former. When the determination to decenter capital takes precedence, the assertions become strangely ahistorical (for example, "Anthropogenic climate change ... is the unintended consequence of the very existence of human beings as a species" [Great Derangement 114-15]). In this, his work exhibits a version of the problem besetting a number of works that rely on the concept of the Anthropocene. Dipesh Chakrabarty has argued in "The Climate of History: Four Theses," for example, that

we must supplement histories of global capital with the deep history of humans as a "species" because "the fact that human beings have ... become a geological agent points to a shared catastrophe that we have all fallen into" (*Critical Inquiry*, vol. 35 no. 2, 2009, p. 218). The difficulty with such claims is that their commitment to the Anthropocene narrative seems to compel a conceptual realignment around "the human" as causal-geological agent, rather than attention to any particular historical instance or socioeconomic organization of humanity. For useful critiques of this view, see Malm, *Fossil*, pp. 28–32 and 265–72; Aronoff, *Overheated: How Capitalism Broke the World and How We Fight Back* (2021); and Jason W. Moore, editor, *Anthropocene or Capitalocene? Nature*, *History*, and the Crisis of Capitalism (2016). The latter proposes replacing "Anthropocene" with the ungainly but surely more accurate term "Capitalocene."

- 12. This logic of intensified reprisal obviously bears a resemblance to (though not an identity with) that of mythic time in *Appleseed*. But, I also intend it to evoke the model of modern history as a serial intensification of the cycle of capital accumulation as theorized by Giovann Arrighi and deployed with special brilliance by Ian Baucom. See Arrighi, *The Long Twentieth Century: Money, Power and the Origin of Our Times* (1994) and Baucom, *Specters of the Atlantic: Finance Capital, Slavery, and the Philosophy of History* (2005).
- 13. I note here that *Appleseed* and *Gun Island* share what Heather Houser names one of three ubiquitous "tics" in climate writing, the "hopeful ending." (The other two are "the ecocide aside" and the "catalogue of despair.") Houser's point is to stress what she calls the current "stuckness" of climate fiction and of nonfiction writings about climate (see "Is Climate Writing Stuck?" in *Literary Hub*, 3 Jan. 2022, web.). For me what matters is less the mere fact of this affirmativeness than whether such endings have been *earned*: have the novels sufficiently grappled with the darkness of their materials, that the hope appears as a result of that struggle—emerging "logically," with appropriate sobriety, and in the form of an aesthetic necessity?
- 14. Adorno argues that generic forms are most compelling when approached through the distinctiveness of individual works since "The more specific the work, the more truly it fulfills the type: The dialectical postulate that the particular is the universal has its model in art" (202).

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