

WRITING DERANGEMENT:
CLIMATE CHANGE AND THE NOVEL

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Early in *The Great Derangement: Climate Change and the Unthinkable*, Amitav Ghosh describes an incident from his youth. A freak weather system descends on a neighborhood in Delhi that he happens to be walking through on his way home. Ghosh witnesses chaos; building facades shatter around him, scooters are relocated to the tops of trees, and fellow bystanders are severely injured. This is a primal scene for Ghosh, an episode on which he has dwelt for decades. Today, Ghosh is known as a fiction writer. He has published eight novels, many of which draw on personal experiences. But despite several attempts, he has never been able to successfully transform the dramatic events of that day into a satisfying fictional episode. Much of *The Great Derangement* is concerned with analyzing the conventions of the contemporary novel which, in Ghosh's view, make rendering such an improbable meteorological experience into realistic narrative difficult, if not impossible. Ghosh feels that the norms of contemporary fiction are barriers to the inclusion of climate change in the literary sphere, with the result that one of the central global issues of the 21st century remains marginal in literary texts and debates. The literary field instead represents the individual imaginary, leaving out the larger social patterns of daily life that might prompt writers to contemplate more fully the ongoing environmental destruction that will surely be a defining feature of our moment in the eyes of future generations.

In this essay, I consider Ghosh's claim that environmental disruption has been marginalized in contemporary literature through an analysis of how climate change knowledge is rendered in five novels of the past decade: Kim Stanley Robinson's *New York 2140* (2017), Nathaniel Rich's *Odds Against Tomorrow* (2013), Ian McEwan's *Solar* (2010), Barbara Kingsolver's *Flight Behavior* (2012), and Ben Lerner's *10:04* (2014). Whereas Ghosh focuses on reasons why "serious" literary novels and climate change don't mix, I consider what appearances of the issue do tell us about climate change's evolving place in the cultural landscape.

THE GREAT DERANGEMENT

In *The Great Derangement*, Ghosh considers why climate change remains conspicuously absent from "serious" literary works—even while environmental disasters have increasingly become the focus of nonfiction and journalistic inquiries. Instead, climate change is quarantined in the new but growing subgenre of cli-fi. Ghosh argues that the genre of literary fiction that dominates today descends from the bourgeois novel which emerged in the 18th and 19th centuries. Reflecting the attitudes and interests of the European middle class, this novelistic form emphasized subjective interiority, domesticity, and social institutions and norms. Within European-style realist fiction, events that

propel a story forward become padded with observations of character and setting. This produces a “concealment of those exceptional moments that serve as the motor of narrative” (17). Extreme or unlikely events are avoided or depicted as peripheral to the lives of bourgeois individuals. The literary form thus resists the representation of unlikely occurrences such as the extreme events associated with climate change, and Ghosh describes how including such occurrences in fiction makes a writer vulnerable to critique.

Ghosh sees the generic constraints of the bourgeois novel as deriving from a context in which the natural world was newly seen through the paradigm of 19th century scientific thought. In this paradigm, humans had been liberated from the domain of erratic and vengeful gods and now existed in a world of quantifiable and incremental change. This world was conceived of in accordance with the analyses of the geologic record, in both fiction and geology, and in scientific thought “nature was moderate and orderly” (22). Stories in which nature was rendered as erratic were considered unrealistic and “nature lost the power to evoke that form of terror and awe that was associated with the ‘sublime’” (56). The Romantic poets were perhaps the last to concede to a larger paradigm shift that had begun with “the practical men who ran colonies and founded cities” and had acquired an “indifference to the destructive powers of the earth” (56).

If within the dominant literary tradition unlikely or extreme events are shrouded by observations of character and setting, how are we to tell the stories of a natural world in which climatic systems have become distorted, to various degrees, by human influence, making a natural world in which “unlikely” events are increasingly regular? The “freakish weather events of today” Ghosh writes “are the mysterious work of our own hands returning to haunt us in unthinkable shapes and forms” (32). In the Anthropocene, Ghosh argues, to position the “natural” world as nothing more than a passive setting against which narratives—be they Austen-esque romances, or the Nordic brooding of Knausgård—play out unaffected is to willfully ignore climate change. Instead, to depict the natural world realistically would require making it an actor—having it intervene in plot, challenge the efficacy of characters’ actions, and influence their decisions. But doing so, as Ghosh says, would take one beyond the realm of the “serious” novel.

CLI-FI AND SPECULATIVE FUTURES

And so what alternative forms of telling the story of climate change might we turn to? Could magical realism or science fiction be the answer? Are there not many novels in which nature comes alive, where lives are upended either by a tornado or the beat of a dragon’s wing? Indeed, when Ghosh tries to think of “writers whose imaginative work communicates a more specific sense of the accelerating changes in our environment” he “mostly finds himself at a loss” (124). Yet the list of writers he does call to mind (including J. G. Ballard, Margaret Atwood, Kurt Vonnegut, Doris Lessing, Cormac McCarthy, and others) is dominated by authors whose work is set in a speculative future.

Kim Stanley Robinson's *New York 2140* (2017) is a recent and exemplary work of the cli-fi genre. Set in a future New York City that has faced such massive sea level rise that it has become a "super Venice," its characters utilize the latest green technologies in order to survive. The plot is driven by central characters' loyalty to an ideology of Occupy-esque 'down-with-the-one-percent' socialism. *New York 2140* is polemical and enjoyable, which is to say that it is urgent, but not a particularly "serious" read. In one scene, a reality TV star who boosts her ratings by appearing topless has to sedate a mob of polar bears after they break free of their cages and terrorize her. This encounter all takes place on a blimp. Antics aside, the possibilities of climate change are presented as a narrative string of "what ifs," rather than a reflection of our current climate impacted present.

For Ghosh, however, this is a problem. The conceit of a speculative future means that science fiction, almost by definition, fails to adequately address climate change because it is seldom set in a recognizable now. "The future," he explains, "is but one aspect of the Anthropocene: this era also includes the recent past, and, most significantly the present" (72)

CLIMATE CHANGE AS SPECIALIST KNOWLEDGE

In addition to the tendency Ghosh highlights, wherein novels that deal with climate change are set in a speculative future, I have identified another tendency. That is, the issue is often introduced through characters who are experts. Three recent novels published in the last decade illustrate this.

Odds Against Tomorrow, the 2013 novel by Nathaniel Rich, was heralded as a prescient book at the "vanguard of post-Sandy catastrophe."¹ The novel is again set in a near future, in a world which diverges from our own predominantly in that insurance companies have stopped offering catastrophe coverage. *Odds Against Tomorrow* exemplifies a narrative category in which knowledge of the implications of climate change are not widespread but remain specialized. The novel's protagonist, Mitchell Zukor, is at the forefront of a new occupation—disaster forecasting—and he cashes in on scaring his clients with probabilities about disaster-induced losses, including those inflicted by earthquakes, drought, and severe storms.

In Ian McEwan's *Solar* (2010), climate knowledge similarly resides with a specialist. *Solar* is a comic document of an era in which climate change was still largely dealt with in the domain of wonks. The novel's anti-hero Michael Beard is a Nobel Prize winning physics professor devoted to combating global warming with green energy solutions. Beard is a vehemently cynical solar specialist and the novel centers on his follies in the workplace and at home. He has been endowed by McEwan with precisely the failings—arrogance, grandiosity, belligerence—that characterize a culture unwilling to prevent catastrophe. In one scene a character is punished for infidelity by slipping on a polar-bear-skin rug. The book may be "serious" fiction, but serious or not, through mocking the moralistic tone that has repelled so many from embracing mainstream environmentalism, it itself becomes unrepentantly moralistic.

1 Teddy Wayne, 'Grave New World,' *The New York Times*, 11 April 2013. <http://www.nytimes.com/2013/04/14/books/review/odds-against-tomorrow-by-nathaniel-rich.html>

As with many cultural narratives around climate change from the early 2000s, in *Solar* the climate problem is distanced geographically and socially. Beard's engagement with climate change is a parody of a wasteful elitist bureaucracy who attend lectures and conferences. When a live encounter with the effects of climate change does occur, it is not in an urban setting (which is where most people live and thus where most climate impacts are felt) but in the far-off Arctic to which the bumbling professor takes an extended voyage. Within the world of the novel, climate change is still a subject for specialists and satire. It has yet to become a subject of everyday heatwaves and loss.

Barbara Kingsolver's *Flight Behavior* shares with *Solar* and *Odds Against Tomorrow* the narrative structure of a specialist imparting knowledge. Yet it quickly departs from the cynical tone of those novels to depict more sympathetically the pedagogical complexity of communicating how a warming climate can have devastating effects both on delicate ecologies and economically precarious communities. In *Flight Behavior* the primary species at threat is the monarch butterfly, yet the human inhabitants of the Appalachian community in which a large monarch butterfly population have temporarily sought refuge are themselves one bad farming season away from foreclosure. When the central character, Dellarobia, first encounters the butterflies that have descended on her family's land she doesn't have her glasses on and so interprets their presence as an aura-like phenomenon. Thus, her first experience with what she will come to understand as a symptom of climate change is an encounter she can't help but categorize as spiritual. Dellarobia does not come to understand how the monarch arrival connects to climate change until Harvard-trained biologist Dr. Ovid Byron arrives on her doorstep. The exchange between these two characters is depicted with nuance; it acknowledges how their social positions are divided by both race and class. Ovid imparts insights to Dellarobia about ecological systems under attack; in exchange she provides insights to him on how ideology impedes climate communication, a subject of which she has first-hand experience. Early on in the novel, before her re-education has begun, Dellarobia thinks to herself, "climate change, she knew to be wary of that" (147).

Flight Behavior crescendos with an extreme weather event of the type Ghosh declares so difficult to represent without disrupting the norms of so-called serious fiction. Dellarobia finds herself moving dream-like to higher ground to escape a flood of biblical proportions; "Man is born unto trouble as the sparks fly upward, she thought, words from the book of Job, made for a world unraveling into fire and flood" (432). The flood occurs with a surreal languor, her house swept away while a cake is still baking in the oven, "departing as gently as an ocean liner" from its "anchored steps and cement-block foundation" (432). The final flood scene is followed by a postscript which re-acknowledges the meticulously constructed internal reality of the novel's previous 400 pages as hypothetical. Kingsolver is careful to state that the mass migration of monarch butterflies to the Northern Appalachian region is a speculative scenario, a fictional event (although she does note that the surrounding "biological story" i.e. climate change "is unfortunately true" (435). The likelihood that devastating flooding will come to Appalachia is high; mass monarch migration much less so. Kingsolver renders

the flood as surreal and the butterflies real, and in doing so collapses the un-heard of and the everyday. It is this extreme everyday that makes *Flight Behavior's* descriptions of the monarchs' ecological perilousness so moving. Scientific and emotionally laden accounts of "One of God's creatures" meeting its end of days, are intertwined with descriptions of the difficulty of domestic life in white America's lowest income brackets—Appalachian poverty. Arguments in the aisles of a one-dollar store are juxtaposed with facts about the biological vulnerability of insects, and other details anchor us in the known world of climate activism, as when volunteers from the real-life organization 350.org show up at Dellarobia's door.

10:04

One recent novel which seems to break through the temporal and discursive limitations explored above is Ben Lerner's *10:04*. The extreme weather events that bracket *10:04* are fiction based on fact. The novel begins as Hurricane Irene is about to descend on New York City and concludes with its main characters stumbling through a city that is reckoning with the aftermath of Super Storm Sandy. *10:04* is a novel centered on the depiction of extreme climate-exacerbated weather events; it is also a literary work that fits Ghosh's definition of "serious" fiction. *10:04* is set in present day New York and is a novel of ideas, with speculative content appearing only in the form of the narrator's internal dialogue. "I'll project myself into several futures simultaneously," he says, describing the structure of the novel we find ourselves reading, but then goes on: "I'll work my way from irony to sincerity in the sinking city, a would-be Whitman of the vulnerable grid"(4). It is such asides, notes-to-self on the weakness of the city's infrastructure and precarity of its geography, that produce the tone of the novel, which we could call one of *climate anxiety*.

Everyday observations of climate appear throughout *10:04*: "outside the restaurant in the false spring air" or "for the second time in a year, we were facing once-in-a-generation weather." The protagonist and his best friend have taken "six years of these walks on a warming planet," and at one point he finds himself "outside of Dr. Andrews's climate-controlled office on the Upper East side," walking into "the unseasonably warm December afternoon" (28-40). Descriptions of the weather are dominated by unsettling meteorological details: "The air around Union Square was heavy with water in its gas phase, a tropical humidity that wasn't native to New York, an ominous medium." This weather is subtly influencing the behavior of the city's inhabitants: "the unusual heat felt summery, but the light was distinctly autumnal, and the confusion of season was reflected in the clothing around them: some people were dressed in T-shirts and shorts, while others wore winter coats." In *10:04* climate change knowledge is not rendered as the spectacular center of a speculative future, but rather as the melancholy reality of our present.

Lerner's novel challenges Ghosh's claim that the natural world has become too "grotesque," "dangerous," and "accusatory" to appear as the setting of a realist novel, and that extreme weather events are too implausible to be used artfully as plot. In *10:04*, events become

atmospheric anchors against which subplots play out and yet the literal atmosphere of the setting is never entirely eclipsed by narrative action. Rather, setting and plot interact. Ruminations on places shadowed with gathering extreme weather give the New York City of *10:04* its particular shade of foreboding. “I was aware that water surrounded the city, and that the water moved; I was aware of the delicacy of the bridges and tunnels spanning it.” (28) When severe weather events do make an entrance, they do not sweep in *ex-machina*, as a cheap trick rendered by a writer with nowhere else to go, but are described almost matter-of-factly, with a tone that is wary of the usual media hyperbole and with details that anchor the events as much in the quotidian as the spectacular:

An unusually large cyclonic system with a warm core was approaching New York. The mayor took unprecedented steps: he divided the city into zones and mandated evacuation from the lower-lying ones: he announced the subway system would shut down before the storm made landfall; parts of lower Manhattan might be preemptively taken off the grid. Some speculated that the mayor, having been criticized for his slow response to a record-setting snowstorm the previous winter, was strategically overacting, making an exaggerated show of his preparedness, but his tone at the increasingly frequent press conferences seemed to express less somber authority than genuine anxiety, as if he were among those he kept imploring to stay calm. (17)

In *10:04* the philosophical implications of climate change, the increasing ubiquity of extremity, and the questions that arise out of this new unstable everyday, roll around the mind of the narrator. *10:04* would almost certainly be welcomed by Ghosh because it is a work of contemporary fiction that acknowledges climate change not just as an issue of personal moral reckoning, but also an opportunity to consider a collective response and to examine climate change drivers, particularly consumption. *10:04* touches on these themes in a variety of ways, perhaps most notably through discussion of the vulnerability of supply chains, and the impacts of consumer decisions, opening up an investigation of how everyday acts of New Yorkers cause the emissions that fuel climate change. Gathering supplies in preparation for Hurricane Irene, the narrator contemplates a package of instant coffee:

Where I now stood reading the label it was as if the social relations that produced the object in my hand began to glow within it as they were threatened, stirred inside their packaging, lending it a certain aura—the majesty and murderous stupidity of that organization of time and space and fuel and labor becoming visible in the commodity itself now that planes were grounded and the highways were starting to close. (19)

This attention to the circulation of goods, and the intersection of capital and labor is touched on again in remarks about the Park Slope Food Co-Op:

although I insulted it constantly... I didn't think the co-op was morally trivial. I liked having the money I spent on food and

household goods go to an institution that made labor shared and visible and that you could usually trust to carry products that weren't the issue of openly evil conglomerates. (96)

In sharing these details, *10:04* does what Ghosh says novels must do; contribute to the climate debate.

In Lerner's hands extreme weather events emerge without seeming melodramatic, and no attempt is made to obscure "moments that serve as the motor of narrative" (17). Rather, extreme events are used to explore how collective reckoning might be painted when done so with a realist's brush. Near the novel's opening Lerner depicts the aggregate experience of ordinary New Yorkers as they await the arrival of Hurricane Irene:

From a million media, most of them handheld, awareness of the storm seeped into the city, entering the architecture and the stout-bodied passengers, inflecting traffic patterns and the "improved sycamores," so called because they're hybridized for urban living. I mean the city was becoming one organism, constituting itself in relation to a threat viewable from space, an aerial sea monster with a single centered eye around which tentacular rain bands swirled...Because every conversation you overheard in line or on the street or train began to share a theme, it was soon one common conversation you could join, removing the conventional partitions from social space; riding the N train to Whole Foods in Union Square, I found myself swapping surge level predictions with a Hasidic Jew and a West Indian nurse in purple scrubs. (17)

A central means by which *10:04* avoids perpetuating the emphasis on "individual moral adventure" (77) of the bourgeois novel is through the narrative's attention to secondary characters. First, we meet Roberto, a child from Sunset Park whom the narrator tutors, then an Occupy activist for whom the narrator cooks, a drug-addled intern in the Texan desert, and finally a student suffering a manic episode. The emotional labor that the narrator enters into with all these young men could be read as a soothing of his own anxieties, but the encounters also act to illustrate the multiple expressions of climate anxiety in our present, particularly among the young. In the role of a teacher, the narrator is asked to address apprehensions about life on a warming planet. The young Roberto reports to the narrator:

What happens in my bad dream is the buildings all freeze up after global warming makes an ice age and the prisons crack open too and then all the killers get out through the cracks and come after us and Joseph Kony comes after us and we have to escape to San Salvador. (13)

The narrator responds: "I asked him to look at me and then promised him in two languages the only thing I could: he had nothing to fear from Joseph Kony."

Lerner's protagonist doesn't need to travel to the Arctic to witness climate change. In *10:04* the dangers of climate change are not

experienced through characters enacting possible future scenarios, but rather through the preoccupations and anxieties of characters who are experiencing climate change through both lived experience, and the real-time mash of the media landscape.

It has now been five years since *10:04* was published. In that time, the importance of the climate change crisis has increased in the collective consciousness of many, in part due to large media events such as the signing of the Paris Agreement, the Pope's 2017 Encyclical, and more recently President Trump's denials regarding climate knowledge. During these same five years, the visceral and often devastating impacts of heat waves, wildfires, and hurricanes have been felt by increasingly large swaths of the globe. In *10:04* extreme weather events are handled in a manner that makes them familiar, rather than dramatic. As the novel's examples of warming and associated anxiety accumulate they collectively signal a new model for representations of climate impacts as accurately rendered as everyday events, as the new (ab)normal. We are drawn through a warming New York City in the company of a character who is no expert on the subject of climate change, but who is anxiously aware of the issue. As a result, we see climate change not as a series of distant and unlikely occurrences with dramatic repercussions, but as a reflection of the reality already present in our cities, chipping away at hard infrastructure and infiltrating the soft infrastructure of our minds.

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