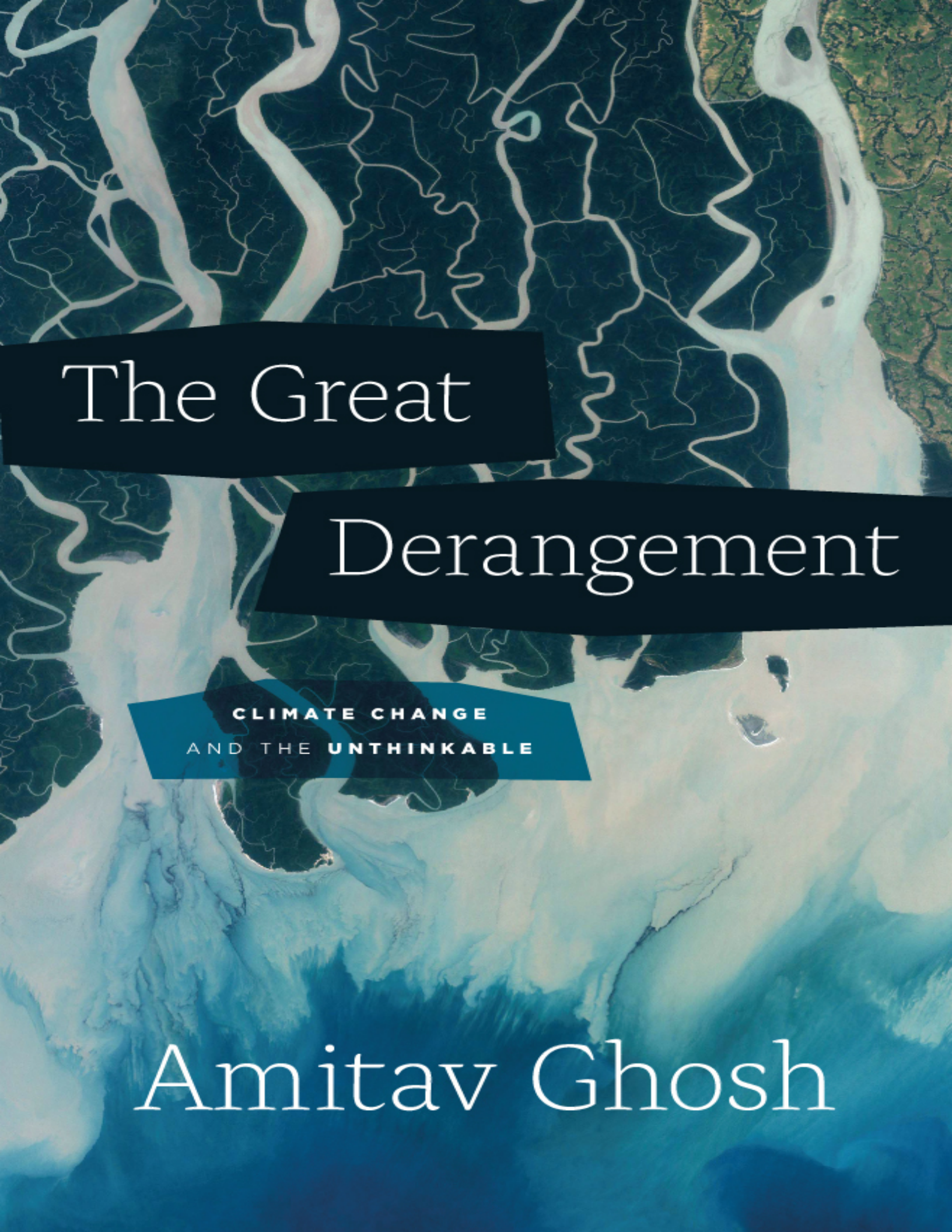
The Great
Derangement
CLIMATE CHANGE
AND THE UNTHINKABLE
Amitav Ghosh

The Great Derangement

The Randy L. and Melvin R. Berlin Family Lectures

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Climate Change and the Unthinkable

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The University of Chicago Press
Chicago and London

The University of Chicago Press, Chicago 60637
The University of Chicago Press, Ltd., London

Printed in the United States of America

25 24 23 22 21 20 19 18 17 16 1 2 3 4 5

ISBN-13: 978-0-226-32303-9 (cloth)
ISBN-13: 978-0-226-32317-6 (e-book)

DOI: 10.7208/chicago/9780226323176.001.0001

The University of Chicago Press gratefully acknowledges the generous support of the Randy L. and Melvin R. Berlin Family Endowment toward the publication of this book.

Library of Congress Cataloging-in-Publication Data
Names: Ghosh, Amitav, 1956– author.
Title: The great derangement : climate change and the unthinkable / Amitav Ghosh.
Other titles: Randy L. and Melvin R. Berlin family lectures.
Description: Chicago ; London : The University of Chicago Press, 2016. | Series: The Randy L. and Melvin R. Berlin family lectures
Identifiers: LCCN 2016018232 | ISBN 9780226323039 (cloth : alk. paper) | ISBN 9780226323176 (e-book)
Subjects: LCSH: Climatic changes in literature.
Classification: LCC PN56.C612 G48 2016 | DDC 809/.9336—dc23 LC record available at https://lccn.loc.gov

This paper meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).

For Mukul Kesavan

In memory of the 1978 tornado

Contents

Part I

Stories

1.

Who can forget those moments when something that seems inanimate turns out to be vitally, even dangerously alive? As, for example, when an arabesque in the pattern of a carpet is revealed to be a dog's tail, which, if stepped upon, could lead to a nipped ankle? Or when we reach for an innocent looking vine and find it to be a worm or a snake? When a harmlessly drifting log turns out to be a crocodile?

It was a shock of this kind, I imagine, that the makers of *The Empire Strikes Back* had in mind when they conceived of the scene in which Han Solo lands the Millennium Falcon on what he takes to be an asteroid—but only to discover that he has entered the gullet of a sleeping space monster.

To recall that memorable scene now, more than thirty-five years after the making of the film, is to recognize its impossibility. For if ever there were a Han Solo, in the near or distant future, his assumptions about interplanetary objects are certain to be very different from those that prevailed in California at the time when the film was made. The humans of the future will surely understand, knowing what they presumably will know about the history of their forebears on Earth, that only in one, very brief era, lasting less than three centuries, did a significant number of their kind believe that planets and asteroids are inert.

2.

My ancestors were ecological refugees long before the term was invented.

They were from what is now Bangladesh, and their village was on the shore of the Padma River, one of the mightiest waterways in the land. The story, as my father told it, was this: one day in the mid-1850s the great river suddenly changed course, drowning the village; only a few of the inhabitants had managed to escape to higher ground. It was this catastrophe that had unmoored our forebears; in its wake they began to move westward and did not stop until the year 1856, when they settled once again on the banks of a river, the Ganges, in Bihar.

I first heard this story on a nostalgic family trip, as we were journeying down the Padma River in a steamboat. I was a child then, and as I looked into those swirling waters I imagined a great storm, with coconut palms bending over backward until their fronds lashed the ground; I envisioned women and children racing through howling winds as the waters rose behind them. I thought of my ancestors sitting huddled on an outcrop, looking on as their dwellings were washed away.

To this day, when I think of the circumstances that have shaped my life, I remember the elemental force that untethered my ancestors from their homeland and launched them on the series of journeys that preceded, and made possible, my own travels. When I look into my past the river seems to meet my eyes, staring back, as if to ask, Do you recognize me, wherever you are?

Recognition is famously a passage from ignorance to knowledge. To recognize, then, is not the same as an initial introduction. Nor does recognition require an exchange of words: more often than not we recognize mutely. And to recognize is by no means to understand that which meets the eye; comprehension need play no part in a moment of recognition.

The most important element of the word *recognition* thus lies in its first syllable, which harks back to something prior, an already existing awareness that makes possible the passage from ignorance to knowledge: a moment of recognition occurs when a prior awareness flashes before us, effecting an instant change in our understanding of that which is beheld. Yet this flash

cannot appear spontaneously; it cannot disclose itself except in the presence of its lost other. The knowledge that results from recognition, then, is not of the same kind as the discovery of something new: it arises rather from a renewed reckoning with a potentiality that lies within oneself.

This, I imagine, was what my forebears experienced on that day when the river rose up to claim their village: they awoke to the recognition of a presence that had molded their lives to the point where they had come to take it as much for granted as the air they breathed. But, of course, the air too can come to life with sudden and deadly violence—as it did in the Congo in 1988, when a great cloud of carbon dioxide burst forth from Lake Nyos and rolled into the surrounding villages, killing 1,700 people and an untold number of animals. But more often it does so with a quiet insistence—as the inhabitants of New Delhi and Beijing know all too well—when inflamed lungs and sinuses prove once again that there is no difference between the without and the within; between using and being used. These too are moments of recognition, in which it dawns on us that the energy that surrounds us, flowing under our feet and through wires in our walls, animating our vehicles and illuminating our rooms, is an all-encompassing presence that may have its own purposes about which we know nothing.

It was in this way that I too became aware of the urgent proximity of nonhuman presences, through instances of recognition that were forced upon me by my surroundings. I happened then to be writing about the Sundarbans, the great mangrove forest of the Bengal Delta, where the flow of water and silt is such that geological processes that usually unfold in deep time appear to occur at a speed where they can be followed from week to week and month to month. Overnight a stretch of riverbank will disappear, sometimes taking houses and people with it; but elsewhere a shallow mud bank will arise and within weeks the shore will have broadened by several feet. For the most part, these processes are of course cyclical. But even back then, in the first years of the twenty-first century, portents of accumulative and irreversible change could also be seen, in receding shorelines and a steady intrusion of salt water on lands that had previously been cultivated.

This is a landscape so dynamic that its very changeability leads to innumerable moments of recognition. I captured some of these in my notes from that time, as, for example, in these lines, written in May 2002: "I do believe it to be true that the land here is demonstrably alive; that it does not exist solely, or even incidentally, as a stage for the enactment of human history; that it is [itself] a protagonist." Elsewhere, in another note, I wrote, "Here even a child will begin a story about his grandmother with the words: 'in those days the river wasn't here and the village was not where it is . . .'"

Yet, I would not be able to speak of these encounters as instances of recognition if some prior awareness of what I was witnessing had not already been implanted in me, perhaps by childhood experiences, like that of going to look for my family's ancestral village; or by memories like that of a cyclone, in Dhaka, when a small fishpond, behind our walls, suddenly turned into a lake and came rushing into our house; or by my grandmother's stories of growing up beside a mighty river; or simply by the insistence with which the landscape of Bengal forces itself on the artists, writers, and filmmakers of the region.

But when it came to translating these perceptions into the medium of my imaginative life—into fiction, that is—I found myself confronting challenges of a wholly different order from those that I had dealt with in my earlier work. Back then, those challenges seemed to be particular to the book I was then writing, *The Hungry Tide*; but now, many years later, at a moment when the accelerating impacts of global warming have begun to threaten the very existence of low-lying areas like the Sundarbans, it seems to me that those problems have far wider implications. I have come to recognize that the challenges that climate change poses for the contemporary writer, although specific in some respects, are also products of something broader and older; that they derive ultimately from the grid of literary forms and conventions that came to shape the narrative imagination in precisely that period when the accumulation of carbon in the atmosphere was rewriting the destiny of the earth.

3·

That climate change casts a much smaller shadow within the landscape of literary fiction than it does even in the public arena is not hard to establish. To see that this is so, we need only glance through the pages of a few highly regarded literary journals and book reviews, for example, the *London Review of Books*, the *New York Review of Books*, the *Los Angeles Review of Books*, the *Literary Journal*, and the *New York Times Review of Books*. When the subject of climate change occurs in these publications, it is almost always in relation to nonfiction; novels and short stories are very rarely to be glimpsed within this horizon. Indeed, it could even be said that fiction that deals with climate change is almost by definition not of the kind that is taken seriously by serious literary journals: the mere mention of the subject is often enough to relegate a novel or a short story to the genre of science fiction. It is as though in the literary imagination climate change were somehow akin to extraterrestrials or interplanetary travel.

There is something confounding about this peculiar feedback loop. It is very difficult, surely, to imagine a conception of seriousness that is blind to potentially life-changing threats. And if the urgency of a subject were indeed a criterion of its seriousness, then, considering what climate change actually portends for the future of the earth, it should surely follow that this would be the principal preoccupation of writers the world over—and this, I think, is very far from being the case.

But why? Are the currents of global warming too wild to be navigated in the accustomed barques of narration? But the truth, as is now widely acknowledged, is that we have entered a time when the wild has become the norm: if certain literary forms are unable to negotiate these torrents, then they will have failed—and their failures will have to be counted as an aspect of the broader imaginative and cultural failure that lies at the heart of the climate crisis.

Clearly the problem does not arise out of a lack of information: there are surely very few writers today who are oblivious to the current disturbances in climate systems the world over. Yet, it is a striking fact that when novelists do choose to write about climate change it is almost always outside of fiction. A case in point is the work of Arundhati Roy: not only is she one of the finest prose stylists of our time, she is passionate and deeply informed about climate change. Yet all her writings on these subjects are in various forms of nonfiction.

Or consider the even more striking case of Paul Kingsnorth, author of *The Wake*, a much-admired historical novel set in eleventh-century England. Kingsnorth dedicated several years of his life to climate change activism before founding the influential Dark Mountain Project, "a network of writers, artists and thinkers who have stopped believing the stories our civilization tells itself." Although Kingsnorth has written a powerful nonfiction account of global resistance movements, as of the time of writing he has yet to publish a novel in which climate change plays a major part.

I too have been preoccupied with climate change for a long time, but it is true of my own work as well, that this subject figures only obliquely in my fiction. In thinking about the mismatch between my personal concerns and the content of my published work, I have come to be convinced that the discrepancy is not the result of personal predilections: it arises out of the peculiar forms of resistance that climate change presents to what is now regarded as serious fiction.

4.

In his seminal essay "The Climate of History," Dipesh Chakrabarty observes that historians will have to revise many of their fundamental assumptions and procedures in this era of the Anthropocene, in which "humans have become geological agents, changing the most basic physical processes of the earth." I would go further and add that the Anthropocene presents a

challenge not only to the arts and humanities, but also to our commonsense understandings and beyond that to contemporary culture in general.

There can be no doubt, of course, that this challenge arises in part from the complexities of the technical language that serves as our primary window on climate change. But neither can there be any doubt that the challenge derives also from the practices and assumptions that guide the arts and humanities. To identify how this happens is, I think, a task of the utmost urgency: it may well be the key to understanding why contemporary culture finds it so hard to deal with climate change. Indeed, this is perhaps the most important question ever to confront *culture* in the broadest sense—for let us make no mistake: the climate crisis is also a crisis of culture, and thus of the imagination.

Culture generates desires—for vehicles and appliances, for certain kinds of gardens and dwellings—that are among the principal drivers of the carbon economy. A speedy convertible excites us neither because of any love for metal and chrome, nor because of an abstract understanding of its engineering. It excites us because it evokes an image of a road arrowing through a pristine landscape; we think of freedom and the wind in our hair; we envision James Dean and Peter Fonda racing toward the horizon; we think also of Jack Kerouac and Vladimir Nabokov. When we see an advertisement that links a picture of a tropical island to the word *paradise*, the longings that are kindled in us have a chain of transmission that stretches back to Daniel Defoe and Jean-Jacques Rousseau: the flight that will transport us to the island is merely an ember in that fire. When we see a green lawn that has been watered with desalinated water, in Abu Dhabi or Southern California or some other environment where people had once been content to spend their water thriftily in nurturing a single vine or shrub, we are looking at an expression of a yearning that may have been midwifed by the novels of Jane Austen. The artifacts and commodities that are conjured up by these desires are, in a sense, at once expressions and concealments of the cultural matrix that brought them into being.

This culture is, of course, intimately linked with the wider histories of imperialism and capitalism that have shaped the world. But to know this is still to know very little about the specific ways in which the matrix interacts with different modes of cultural activity: poetry, art, architecture, theater, prose fiction, and so on. Throughout history these branches of culture have responded to war, ecological calamity, and crises of many sorts: why, then, should climate change prove so peculiarly resistant to their practices?

From this perspective, the questions that confront writers and artists today are not just those of the politics of the carbon economy; many of them have to do also with our own practices and the ways in which they make us complicit in the concealments of the broader culture. For instance: if contemporary trends in architecture, even in this period of accelerating carbon emissions, favor shiny, glass-and-metal-plated towers, do we not have to ask, What are the patterns of desire that are fed by these gestures? If I, as a novelist, choose to use brand names as elements in the depiction of character, do I not need to ask myself about the degree to which this makes me complicit in the manipulations of the marketplace?

In the same spirit, I think it also needs to be asked, What is it about climate change that the mention of it should lead to banishment from the preserves of serious fiction? And what does this tell us about culture writ large and its patterns of evasion?

In a substantially altered world, when sea-level rise has swallowed the Sundarbans and made cities like Kolkata, New York, and Bangkok uninhabitable, when readers and museumgoers turn to the art and literature of our time, will they not look, first and most urgently, for traces and portents of the altered world of their inheritance? And when they fail to find them, what should they—what can they—do other than to conclude that ours was a time when most forms of art and literature were drawn into the modes of concealment that prevented people from recognizing the realities of their plight? Quite possibly, then, this era, which so congratulates itself on its self-awareness, will come to be known as the time of the Great Derangement.

5·

On the afternoon of March 17, 1978, the weather took an odd turn in north Delhi. Mid-march is usually a nice time of year in that part of India: the chill of winter is gone and the blazing heat of summer is yet to come; the sky is clear and the monsoon is far away. But that day dark clouds appeared suddenly and there were squalls of rain. Then followed an even bigger surprise: a hailstorm.

I was then studying for an MA at Delhi University while also working as a part-time journalist. When the hailstorm broke, I was in a library. I had planned to stay late, but the unseasonal weather led to a change of mind and I decided to leave. I was on my way back to my room when, on an impulse, I changed direction and dropped in on a friend. But the weather continued to worsen as we were chatting, so after a few minutes I decided to head straight back by a route that I rarely had occasion to take.

I had just passed a busy intersection called Maurice Nagar when I heard a rumbling sound somewhere above. Glancing over my shoulder I saw a gray, tube-like extrusion forming on the underside of a dark cloud: it grew rapidly as I watched, and then all of a sudden it turned and came whiplashing down to earth, heading in my direction.

Across the street lay a large administrative building. I sprinted over and headed toward what seemed to be an entrance. But the glass-fronted doors were shut, and a small crowd stood huddled outside, in the shelter of an overhang. There was no room for me there so I ran around to the front of the building. Spotting a small balcony, I jumped over the parapet and crouched on the floor.

The noise quickly rose to a frenzied pitch, and the wind began to tug fiercely at my clothes. Stealing a glance over the parapet, I saw, to my astonishment, that my surroundings had been darkened by a churning cloud of dust. In the dim glow that was shining down from above, I saw an extraordinary panoply of objects flying past—bicycles, scooters, lampposts,

sheets of corrugated iron, even entire tea stalls. In that instant, gravity itself seemed to have been transformed into a wheel spinning upon the fingertip of some unknown power.

I buried my head in my arms and lay still. Moments later the noise died down and was replaced by an eerie silence. When at last I climbed out of the balcony, I was confronted by a scene of devastation such as I had never before beheld. Buses lay overturned, scooters sat perched on treetops, walls had been ripped out of buildings, exposing interiors in which ceiling fans had been twisted into tulip-like spirals. The place where I had first thought to take shelter, the glass-fronted doorway, had been reduced to a jumble of jagged debris. The panes had shattered, and many people had been wounded by the shards. I realized that I too would have been among the injured had I remained there. I walked away in a daze.

Long afterward, I am not sure exactly when or where, I hunted down the *Times of India*'s New Delhi edition of March 18. I still have the photocopies I made of it.

"30 Dead," says the banner headline, "700 Hurt As Cyclone Hits North Delhi."

Here are some excerpts from the accompanying report: "Delhi, March 17: At least 30 people were killed and 700 injured, many of them seriously, this evening when a freak funnel-shaped whirlwind, accompanied by rain, left in its wake death and devastation in Maurice Nagar, a part of Kingsway Camp, Roshanara Road and Kamla Nagar in the Capital. The injured were admitted to different hospitals in the Capital.

"The whirlwind followed almost a straight line. . . . Some eyewitnesses said the wind hit the Yamuna river and raised waves as high as 20 or 30 feet. . . . The Maurice Nagar road . . . presented a stark sight. It was littered with fallen poles . . . trees, branches, wires, bricks from the boundary walls of various institutions, tin roofs of staff quarters and dhabas and scores of scooters, buses and some cars. Not a tree was left standing on either side of the road."

The report quotes a witness: “I saw my own scooter, which I had abandoned on the road, during those terrifying moments, being carried away in the wind like a kite. We saw all this happening around but were dumbfounded. We saw people dying . . . but were unable to help them. The two tea-stalls at the Maurice Nagar corner were blown out of existence. At least 12 to 15 persons must have been buried under the debris at this spot. When the hellish fury had abated in just four minutes, we saw death and devastation around.”

The vocabulary of the report is evidence of how unprecedented this disaster was. So unfamiliar was this phenomenon that the papers literally did not know what to call it: at a loss for words they resorted to “cyclone” and “funnel-shaped whirlwind.”

Not till the next day was the right word found. The headlines of March 19 read, “A Very, Very Rare Phenomenon, Says Met Office”: “It was a tornado that hit northern parts of the Capital yesterday—the first of its kind. . . . According to the Indian Meteorological Department, the tornado was about 50 metres wide and covered a distance of about five k.m. in the space of two or three minutes.”

This was, in effect, the first tornado to hit Delhi—and indeed the entire region—in recorded meteorological history. And somehow I, who almost never took that road, who rarely visited that part of the university, had found myself in its path.

Only much later did I realize that the tornado’s eye had passed directly over me. It seemed to me that there was something eerily apt about that metaphor: what had happened at that moment was strangely like a species of visual contact, of beholding and being beheld. And in that instant of contact something was planted deep in my mind, something irreducibly mysterious, something quite apart from the danger that I had been in and the destruction that I had witnessed; something that was not a property of the thing itself but of the manner in which it had intersected with my life.

6.

As is often the case with people who are waylaid by unpredictable events, for years afterward my mind kept returning to my encounter with the tornado. Why had I walked down a road that I almost never took, just before it was struck by a phenomenon that was without historical precedent? To think of it in terms of chance and coincidence seemed only to impoverish the experience: it was like trying to understand a poem by counting the words. I found myself reaching instead for the opposite end of the spectrum of meaning—for the extraordinary, the inexplicable, the confounding. Yet these too did not do justice to my memory of the event.

Novelists inevitably mine their own experience when they write. Unusual events being necessarily limited in number, it is but natural that these should be excavated over and again, in the hope of discovering a yet undiscovered vein.

No less than any other writer have I dug into my own past while writing fiction. By rights then, my encounter with the tornado should have been a mother lode, a gift to be mined to the last little nugget.

It is certainly true that storms, floods, and unusual weather events do recur in my books, and this may well be a legacy of the tornado. Yet oddly enough, no tornado has ever figured in my novels. Nor is this due to any lack of effort on my part. Indeed, the reason I still possess those cuttings from the *Times of India* is that I have returned to them often over the years, hoping to put them to use in a novel, but only to meet with failure at every attempt.

On the face of it there is no reason why such an event should be difficult to translate into fiction; after all, many novels are filled with strange happenings. Why then did I fail, despite my best efforts, to send a character down a road that is imminently to be struck by a tornado?

In reflecting on this, I find myself asking, What would I make of such a scene were I to come across it in a novel written by someone else? I suspect that my response would be one of incredulity; I would be inclined to think that the scene was a contrivance of last resort. Surely only a writer whose imaginative resources were utterly depleted would fall back on a situation of such extreme improbability?

Improbability is the key word here, so we have to ask, What does the word mean?

Improbable is not the opposite of *probable*, but rather an inflexion of it, a gradient in a continuum of probability. But what does probability—a mathematical idea—have to do with fiction?

The answer is: Everything. For, as Ian Hacking, a prominent historian of the concept, puts it, probability is a "manner of conceiving the world constituted without our being aware of it."

Probability and the modern novel are in fact twins, born at about the same time, among the same people, under a shared star that destined them to work as vessels for the containment of the same kind of experience. Before the birth of the modern novel, wherever stories were told, fiction delighted in the unheard-of and the unlikely. Narratives like those of *The Arabian Nights, The Journey to the West*, and *The Decameron* proceed by leaping blithely from one exceptional event to another. This, after all, is how storytelling must necessarily proceed, inasmuch as it is a recounting of "what happened"—for such an inquiry can arise only in relation to something out of the ordinary, which is but another way of saying "exceptional" or "unlikely." In essence, narrative proceeds by linking together moments and scenes that are in some way distinctive or different: these are, of course, nothing other than instances of exception.

Novels too proceed in this fashion, but what is distinctive about the form is precisely the concealment of those exceptional moments that serve as the motor of narrative. This is achieved through the insertion of what Franco Moretti, the literary theorist, calls "fillers." According to Moretti, "fillers function very much like the good manners so important in [Jane] Austen: they are both mechanisms designed to keep the 'narrativity' of life under control—to give a regularity, a 'style' to existence." It is through this mechanism that worlds are conjured up, through everyday details, which function "as *the opposite of narrative*."

It is thus that the novel takes its modern form, through "the relocation of the unheard-of toward the background . . . while the everyday moves into the