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 wa-
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 unmoored 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 in­
stances 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 Dha­
ka, when a small fishpond, behind our walls, suddenly turned
into a lake and came rushing into our house; or by my grand­
mother's stories of growing up beside a mighty river; or sim­
ply by the insistence with which the landscape of Bengal forc­
es 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 or­
der 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,
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.
played a decisive role. In other words, carbon emissions were, from very early on, closely co-related to power in all its aspects: this continues to be a major, although unacknowledged, factor in the politics of contemporary global warming.

The Opium War of 1839–42 was the first important conflict to be fought in the name of free trade and unfettered markets; yet, ironically, the most obvious lesson of this period is that capitalist trade and industry cannot thrive without access to military and political power. State interventions have always been critical to its advancement. In Asia, it was military dominance that created the conditions in which Western capital could prevail over indigenous commerce. British imperial officials of that period understood perfectly well the lesson contained in this: it was that the maintenance of military dominance had to be the primary imperative of empire.

In mainland Asia, the crucial linkages between economy, political sovereignty, and military power were not restored till the paired processes of decolonization and the (temporary) retreat of the erstwhile colonial powers were set in motion by the end of the Second World War. It is surely no coincidence that the acceleration of mainland Asian economies followed within a few decades. As Dipesh Chakrabarty points out, the period of the Great Acceleration is precisely "the period of great decolonization in countries that had been dominated by European imperial powers."

Such being the case, another essential question in relation to the chronology of global warming is this: What would have happened if decolonization and the dismantling of empires (including that of Japan) had occurred earlier, say, after the First World War? Would the economies of mainland Asia have accelerated earlier?

If the answer to this were yes, then another, equally important question would arise: Could it be the case that imperialism...
actually delayed the onset of the climate crisis by retarding the expansion of Asian and African economies? Is it possible that if the major twentieth-century empires had been dismantled earlier, then the landmark figure of 350 parts per million of carbon dioxide in the atmosphere would have been crossed long before it actually was?

It seems to me that the answer is almost certainly yes. This is indeed silently implied in the positions that India, China, and many other nations have taken in global climate negotiations: the argument about fairness in relation to per capita emissions is, in a sense, an argument about lost time.

Here, then, is the paradoxical possibility that is implied by these positions: the fact that some of the key technologies of the carbon economy were first adopted in England, the world’s leading colonial power, may actually have retarded the onset of the climate crisis.

To acknowledge the complexity of the history of the carbon economy is not in any way to diminish the force of the argument for global justice regarding greenhouse gas emissions. To the contrary, it places that argument within the same contexts as debates about inequality, poverty, and social justice within countries like Britain and the United States: it is to assert that the poor nations of the world are not poor because they were indolent or unwilling; their poverty is itself an effect of the inequities created by the carbon economy; it is the result of systems that were set up by brute force to ensure that poor nations remained always at a disadvantage in terms of both wealth and power.

Inasmuch as the fruits of the carbon economy constitute wealth, and inasmuch as the poor of the global south have historically been deprived of this wealth, it is certainly true, by every available canon of distributive justice, that they are entitled to a greater share of the rewards of that economy. But
movements that would lead, over time, to "the Protestantization of religions, secularization . . . and nation-building."

But the Asian countries that industrialized first did not, in fact, follow the Western model: as Sugihara and others have shown, the path that Japan and Korea took was, of necessity, much less wasteful of resources. Japan diverged from the West in another way as well: an awareness of natural constraints became a part of its official ideology, which insisted that "nature is consciousness for the Japanese people."

It is a striking fact also that many leading figures from Asia voiced concerns even at a time when environmentalism was largely a countercultural issue in the West. One of them was the Burmese statesman U Thant, who served as the secretary-general of the United Nations from 1962 to 1971 and was instrumental in establishing the United Nations Environment Programme. In 1971, he issued a warning that seems strangely prescient today: "As we watch the sun go down, evening after evening, through the smog across the poisoned waters of our native earth, we must ask ourselves seriously whether we really wish some future universal historian on another planet to say about us: 'With all their genius and with all their skill, they ran out of foresight and air and food and water and ideas;' or, "They went on playing politics until their world collapsed around them."

In China, an awareness of the importance of numbers would lead eventually to the recently ended One-Child Policy, a measure that, at the cost of inflicting great suffering, has had the effect of stabilizing the country's population at a level far below what it might otherwise have been. Draconian and repressive as this policy undoubtedly was, from the reversed perspective of the Anthropocene it may one day be claimed as a mitigatory measure of great significance. For if it is indeed the case that the onset of the climate crisis has been accelerated by
the industrialization of mainland Asia, then we may be sure that with several hundred million more consumers included in the equation the landmark figure of 350 parts per million of carbon dioxide in the atmosphere would have been passed very much earlier.

In any reckoning of climate justice, this history too needs to be taken into account: that in both India and China, the two nations that are now often blamed for precipitating the climate crisis, there were significant numbers of people who understood, long before climate scientists brought in the data, that industrial civilization was subject to limitations of scale and would collapse if adopted by the majority of the earth's people. Although they may finally have failed to lead their compatriots in a different direction, they did succeed in retarding the wholesale adoption of a consumerist, industrial model of economy in their countries. In a world where the rewards of a carbon-intensive economy are regarded as wealth, this must be reckoned as a very significant material sacrifice, for which they can, quite legitimately, demand recognition.

The demand for "climate reparations" is therefore founded on unshakeable grounds, historically and ethically. Yet the complexity of the carbon economy's genealogy holds a lesson also for those in the global south who would draw a wide and clear line between "us" and "them" in relation to global warming. While there can be no doubt that the climate crisis was brought on by the way in which the carbon economy evolved in the West, it is also true that the matter might have taken many different turns. The climate crisis cannot therefore be thought of as a problem created by an utterly distant "Other."

The phrase "common but differentiated responsibilities," frequently heard during the Paris climate change negotiations of 2015, is thus a rare example of bureaucratese that is both apt and accurate. Anthropogenic climate change, as Chakrabarty
diplomats and delegates, are not at all similar, even though they rely on many of the same materials and address some of the same subjects. Yet they also have certain things in common: perhaps the most important of these is that they are both founded on an acceptance of the research produced by climate science. In this sense they together represent a historic milestone: their publication marks a general, worldwide acknowledgment that the earth's climate is changing and that human beings are largely responsible for these changes. The documents can therefore rightly be seen as a vindication of climate science.

Beyond that, the documents diverge sharply, although not in predictable ways. It might be thought, for example, that as a primarily religious document the pope's Encyclical would be written in an allusive and ornate style; it might equally be expected that the Agreement would, by contrast, be terse and workmanlike (as was the Kyoto Protocol, for instance). In fact the opposite is true. The Encyclical is remarkable for the lucidity of its language and the simplicity of its construction; it is the Agreement, rather, that is highly stylized in its wording and complex in structure.

The Agreement is divided into two parts: the first and longer part is entitled "Proposal by the President," while the second—which is the Agreement itself—is described as an "Annex." Each part is preceded by a preamble, as is the convention for treaties—except that in this case these sections are far longer and more elaborate than is customary. The preamble to the Kyoto Protocol, for instance, consists of only five terse declarative clauses; by contrast, the text of the Paris Agreement contains no less than thirty-one ringing declarations. Fifteen of these precede the first part of the document (the president's proposal); here are some of them:
PART III

*Recalling* decision 1/CP.17 on the establishment …
*Also recalling* Articles …
*Further recalling* relevant decisions …
*Welcoming* the adoption …
*Recognizing* that …
*Acknowledging* that …
*Agreeing* to uphold and promote …

The lines pour down the page in a waterfall of gerunds and then, without the sentence yet reaching an end, the clauses change into numbered articles as the document switches gear and “*Decides* to adopt …” and “*Requests* the Secretary-General …”

And so the Proposal continues, covering eighteen densely printed pages: yet this large block of text, with its 140 numbered clauses and six sections, consists of only two sentences, one of which runs on for no less than fifteen pages! Indeed this part of the Agreement is a work of extraordinary compositional virtuosity—thousands of words separated by innumerable colons, semicolons, and commas and only a single, lonely pair of full stops.

The giddy virtuosity of the text provides a context for the images that streamed out of Paris after the negotiations: of world leaders and business tycoons embracing each other; of negotiators with tears in their eyes; of delegates crowding joyfully together to be photographed. The pictures captured a mood of as much astonishment as joy; it was as if the delegates could not quite believe that they had succeeded in reaching an agreement of such significance. The euphoria that resulted is as clearly evident in the text of the Agreement as it is in the pictures: the virtuosity of its composition is a celebration of its own birth.

*There is no such exuberance in* *Laudato Si’,* *which is remark-
the window for effective action will already have dwindled to the size of the eye of a celestial needle.

In contrast to the Agreement’s careful avoidance of disruptive terminology, *Laudato Si’* challenges contemporary practices not just in its choice of words but also in the directness of its style. In place of the obscurity and technical jargon that enshrouds the official discourse on climate change, the document strives to open itself, in a manner that explicitly acknowledges the influence of the saint who is the pope’s “guide and inspiration”: “Francis [of Assisi] helps us to see that an integral ecology calls for openness to categories which transcend the language of mathematics and biology and take us to the heart of what it is to be human.”

In much the same measure that *Laudato Si’* strives for openness, the Agreement moves in the opposite direction: toward confinement and occlusion. Its style as well as its vocabulary convey the impression of language being deployed as an instrument of concealment and withdrawal; even its euphoria is suggestive of the heady joy of a small circle of initiates celebrating a rite of passage. In clause after clause, the Agreement summons up mysterious structures, mechanisms, and strange new avatars of officialdom—as, for example, when it “decides that two high-level champions shall be appointed,” and “invites all interested parties … to support the work of the champions” (where, one wonders, is the Colosseum in which these champions have duelled their way to the “highest level”?).

That the word champion is left undefined is telling: it implies that the document’s authors know tacitly whom they are referring to—and who could that be but others like themselves? This is indeed an Agreement of champions, authored by and for those of that ilk.

Strangely, *Laudato Si’* seems to anticipate this possibility: in a passage that refers to the way that decisions are made in “in-
international political and economic discussions; it points to the role of "professionals, opinion makers, communications media and centres of power [who] being located in affluent urban areas, are far removed from the poor, with little direct contact with their problems. They live and reason from the comfortable position of a high level of development and a quality of life well beyond the reach of the majority of the world's population." It is with exactly this in mind that the style of Laudato Si' seems to have been forged, as an attempt to address those to whom it repeatedly refers as the "excluded."

The opacity of the Agreement, on the other hand, hints at the opposite intention: its rhetoric is like a shimmering screen, set up to conceal implicit bargains, unspoken agreements, and loopholes visible only to those in the know. It is no secret that various billionaires, corporations, and "climate entrepreneurs" played an important part in the Paris negotiations. But even if this were not publicly known, it would be deducible from the diction of the Agreement, which is borrowed directly from the free-trade agreements of the neo-liberal era: these clearly are the provenance of its references to "accelerating, encouraging and enabling innovation" and of many of the terms on which it relies, such as stakeholder, good practices, insurance solutions, public and private participation, technology development, and so on.

As is often the case with texts, the Agreement's rhetoric serves to clarify much that it leaves unsaid: namely, that its intention, and the essence of what it has achieved, is to create yet another neo-liberal frontier where corporations, entrepreneurs, and public officials will be able to join forces in enriching each other.

Might the Paris Agreement have taken a different turn if the terrorist attacks of December 2 had not radically changed the context of the negotiations by providing the French government with an alibi for the banning of demonstrations, marches,
they echo one of the most radical elements of Pope Francis’s critique of the era that he describes as “a period of irrational confidence in progress and human abilities.” It is his questioning of the idea that “human freedom is limitless.” “We have forgotten,” goes the text, “that ‘man is not only a freedom which he creates for himself. . . . He is spirit and will, but also nature.”

It is by this route that the themes of *Laudato Si’* lead back to the territory that I explored earlier in trying to locate the fronts where climate change resists contemporary literature and the arts. Insofar as the idea of the limitlessness of human freedom is central to the arts of our time, this is also where the Anthropocene will most intransigently resist them.

9.

Bleak though the terrain of climate change may be, there are a few features in it that stand out in relief as signs of hope: a spreading sense of urgency among governments and the public; the emergence of realistic alternative energy solutions; widening activism around the world; and even a few signal victories for environmental movements. But the most promising development, in my view, is the increasing involvement of religious groups and leaders in the politics of climate change. Pope Francis is, of course, the most prominent example, but some Hindu, Muslim, Buddhist, and other groups and organizations have also recently voiced their concern.

I take this to be a sign of hope because it is increasingly clear to me that the formal political structures of our time are incapable of confronting this crisis on their own. The reason for this is simple: the basic building block of these structures is the nation-state, inherent to the nature of which is the pursuit of the interests of a particular group of people. So powerful is this imperative that even transnational groupings of nation-
states, like the UN, seem unable to overcome it. This is partly
due, of course, to questions of power and geo-political rivalries.
But it may also be that climate change represents, in its very
nature, an unresolvable problem for modern nations in terms
of their biopolitical mission and the practices of governance
that are associated with it.

I would like to believe that a great upsurge of secular pro­
test movements around the world could break through the
deadlock and bring about fundamental changes. The problem,
however, is time. One of the reasons why climate change is a
"wicked" as opposed to a "normal" problem is that the time
horizon in which effective action can be taken is very narrow:
every year that passes without a drastic reduction in global
emissions makes catastrophe more certain.

It is hard to see how popular protest movements could gain
enough momentum within such a narrow horizon of time:
such movements usually take years, even decades, to build. And
to build them in the current situation will be all the more dif­
ficult because security establishments around the world have
already made extensive preparations for dealing with activism.

If a significant breakthrough is to be achieved, if the secu­
ritization and corporatization of climate change is to be pre­
vented, then already-existing communities and mass organi­
zations will have to be in the forefront of the struggle. And of
such organizations, those with religious affiliations possess
the ability to mobilize people in far greater numbers than any
others. Moreover, religious worldviews are not subject to the
limitations that have made climate change such a challenge for
our existing institutions of governance: they transcend nation­
states, and they all acknowledge intergenerational, long-term
responsibilities; they do not partake of economistic ways of
thinking and are therefore capable of imagining nonlinear
change—catastrophe, in other words—in ways that are per-
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.

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.
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 museum-goers 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.

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.
It was not for any lack of industriousness, then, or ingenuity or entrepreneurial interest, that this avatar of the carbon economy withered in India: the matter might have taken a completely different turn if local industrialists had enjoyed the kind of state patronage that was routinely extended to their competitors elsewhere.

8.
Where it concerns human beings, it is almost always true that the more anxiously we look for purity the more likely we are to come upon admixture and interbreeding. This is no less true, I think, of the genealogy of the carbon economy than it is of the human race: many different lines of descent are commingled in its present form.

The factor that gave the carbon economy its decisive shape was not the provenance of the machines that ushered in the Industrial Revolution: these could have been used and imitated just as easily in other parts of the world as they were in continental Europe. What determined the shape of the global carbon economy was that the major European powers had already established a strong (but by no means hegemonic) military and political presence in much of Asia and Africa at the time when the technology of steam was in its nascency, that is to say, the late eighteenth and early nineteenth centuries. From that point on, carbon-intensive technologies were to have the effect of continually reinforcing Western power with the result that other variants of modernity came to be suppressed, incorporated, and appropriated into what is now a single, dominant model.

The boost that fossil fuels provided to Western power is nowhere more clearly evident than in the First Opium War, where armored steamships, led by the aptly named Nemesis,
HISTORY

even to enter into that argument is to recognize how deeply we are mired in the Great Derangement: our lives and our choices are enframed in a pattern of history that seems to leave us nowhere to turn but toward our self-annihilation.

"Money flows toward short term gain," writes the geologist David Archer, "and toward the over-exploitation of unregulated common resources. These tendencies are like the invisible hand of fate, guiding the hero in a Greek tragedy toward his inevitable doom."

This is indeed the essence of humanity's present derangement.

9.

Imperialism was not, however, the only obstacle in Asia's path to industrialization: this model of economy also met with powerful indigenous resistances of many different kinds. While it is true that industrial capitalism met with resistance on every continent, not least Europe, what is distinctive in the case of Asia is that the resistance was often articulated and championed by figures of extraordinary moral and political authority, such as Mahatma Gandhi. Among Gandhi's best-known pronouncements on industrial capitalism are these famous lines written in 1928: "God forbid that India should ever take to industrialism after the manner of the West. If an entire nation of 300 millions [sic] took to similar economic exploitation, it would strip the world bare like locusts."

This quote is striking because of the directness with which it goes to the heart of the matter: numbers. It is proof that Gandhi, like many others, understood intuitively what Asia's history would eventually demonstrate: that the universalist premise of industrial civilization was a hoax; that a consumerist mode of existence, if adopted by a sufficient number of
people, would quickly become unsustainable and would lead, literally, to the devouring of the planet.

Of course, Gandhi was not alone in being granted this insight; many others around the world were to arrive at the same conclusion, often by completely different routes. But Gandhi occupied a position of unique social and cultural importance, and, what was more, he was willing to carry his vision to its logical conclusion by voluntarily renouncing, on behalf of his nation, the kind of power and affluence that is conferred by industrial civilization.

This was perfectly well understood by Gandhi’s political enemies on the Hindu right, who insistently characterized him as a man who wanted to weaken India. And indeed it was for this very reason that Gandhi was assassinated by a former member of an organization that would later become the nucleus of the political formation that now rules India. This coalition came to power by promising exactly what Gandhi had renounced: endless industrial growth.

In China, similarly, as Prasenjit Duara has shown, industrialism and consumerism faced powerful resistances from within the Taoist, Confucian, and Buddhist traditions. There too many influential thinkers understood the implications of large-scale modernization. One such was Zhang Shizhao (1881–1934) who was minister of education in Duan Qirui’s government: “While finitude characterizes all things under heaven,” he wrote, “appetites alone know no bounds. When the amount of what is of finite supply is gauged on the basis of boundless appetites, the exhaustion of the former can be expected within a matter of days. Conversely, the depletion of finite things would soon come when used to satisfy insatiable desires.”

Duara has shown in rich detail how the resistance to capitalist modernity was overcome very slowly in both of Asia’s most populous countries, through a range of political and cultural
and others have pointed out, is the unintended consequence of the very existence of human beings as a species. Although different groups of people have contributed to it in vastly different measure, global warming is ultimately the product of the totality of human actions over time. Every human being who has ever lived has played a part in making us the dominant species on this planet, and in this sense every human being, past and present, has contributed to the present cycle of climate change.

The events of today’s changing climate, in that they represent the totality of human actions over time, represent also the terminus of history. For if the entirety of our past is contained within the present, then temporality itself is drained of significance. Or, in the words of the Japanese philosopher Watsuji Tetsuro: “Rather than trace historical development… all one need do is to distinguish the various formal transformations of the present.”

The climate events of this era, then, are distillations of all of human history: they express the entirety of our being over time.
In the annals of climate change, 2015 was a momentous year. Extreme weather events abounded: a strong El Niño, perching upon "the ramp of global warming," wrought havoc upon the planet; many millions of people found themselves at the mercy of devastating floods and droughts; freakish tornadoes and cyclones churned through places where they had never been seen before; and extraordinary temperature anomalies were recorded around the globe, including unheard-of midwinter highs over the North Pole. Within days of the year's end, 2015 was declared the hottest year since record-keeping began. It was a year in which the grim predictions of climate scientists assumed the ring of prophecy.

These disturbances were almost impossible to ignore: on the web as in the traditional media the phrase "climate change" was everywhere. Few indeed were the quarters that remained unperturbed, but literary fiction and the arts appear to have been among them: short lists for prizes, reviews, and so on, betray no signs of a heightened engagement with climate change.

But 2015 did produce two very important publications on climate change: the first, Pope Francis’s encyclical letter Laudato Si’, was published in May; while the second, the Paris Agreement on climate change, appeared in December.

These two documents occupy a realm that few texts can aspire to: one in which words effect changes in the real world. But the documents are also texts, brought into being through the crafts of writing, with meticulous attention being paid to form, vocabulary, and even typography. To read them as texts is revealing in many ways.

As is only to be expected, the two works, one written by a former teacher of literature and the other by a multitude of
able instead for the sober clarity with which it addresses complex questions. While the preambles of the Agreement occupy a prosodic domain of their own, somewhere between poetry and prose, *Laudato Si'* resorts to poetry only at the very end, in two concluding prayers.

Here again lies an unexpected difference between the two documents. Because of the prayerful ending of *Laudato Si*, it might be thought that there would be more wishful thinking and conjecture in the Encyclical than in the Agreement. But that too is by no means the case. It is the Paris Agreement rather that repeatedly invokes the impossible: for example, the aspirational goal of limiting the rise in global mean temperatures to 1.5 degrees Centigrade—a target that is widely believed to be already beyond reach.

Although the Paris Agreement does not lay out the premises on which its targets are based, it is thought that they are founded on the belief that technological advances will soon make it possible to whisk greenhouse gases out of the atmosphere and bury them deep underground. But these technologies are still in their nascent, and the most promising of them, known as "biomass energy carbon capture and storage," would require the planting of bioenergy crops over an area larger than India to succeed at scale. To invest so much trust in what is yet only a remote possibility is little less than an act of faith, not unlike religious belief.

*Laudato Si*, by contrast, does not anywhere suggest that miraculous interventions may provide a solution for climate change. It strives instead to make sense of humanity's present predicament by mining the wisdom of a tradition that predates the carbon economy. Yet it does not hesitate to take issue with past positions of the Church, as, for example, in the matter of reconciling an ecological consciousness with the Christian doctrine of Man's dominion over Nature. Even less does the
Encyclical hesitate to criticize the prevalent paradigms of our era; most of all it is fiercely critical of “the idea of infinite or unlimited growth, which proves so attractive to economists, financiers and experts in technology.” It returns to this theme repeatedly, insisting that it is because of the “technocratic paradigm” that “we fail to see the deepest roots of our present failures, which have to do with the direction, goals, meaning and social implications of technological growth.”

In the text of the Paris Agreement, by contrast, there is not the slightest acknowledgment that something has gone wrong with our dominant paradigms; it contains no clause or article that could be interpreted as a critique of the practices that are known to have created the situation that the Agreement seeks to address. The current paradigm of perpetual growth is enshrined at the core of the text.

But perhaps criticism is not the business of a treaty? Not true: international narcotics agreements, for example, use quite strong language in condemning “the evil of drug addiction,” and so on. Critical language even figured in earlier climate treaties like the Kyoto Protocol, which did make reference to “market imperfections.” No such phrase is to be found in the Paris Agreement: it merely acknowledges that “climate change is a common concern for humankind.”

The Agreement is similarly tepid in its naming of the conditions that it is intended to remedy: while words like catastrophe and disaster occur several times in the Encyclical, the Agreement speaks only of the adverse impacts or effects of climate change. The word catastrophe is never used and even disaster occurs only once, and that too only because it figures in the title of a previous conference. It is as if the negotiations had been convened to deal with a minor annoyance. No wonder then that the Agreement’s provisions will come into force (if such a word can be used of voluntary actions) only in 2020 when...
and protests? What would have happened if the delegates had been forced to deal with a great wave of popular pressure, as climate activists had planned? These questions will haunt historians for years to come, and the answers, of course, will never be known. However, the alacrity with which the French authorities moved against climate activists, and the efficiency with which it put dozens of them under house arrest, suggests that even in the absence of the attacks a means would have been found for corralling the protesters—as has been the case at many other international negotiations during the last two decades. This is one area in which governments and corporations around the world have grown extraordinarily skilled, and there is every reason to believe that the investments that they have made in surveilling environmental activists would have paid off, once again, to enforce the exclusions that are hinted at in the Agreement's text.

If exclusion is a recurrent theme in Laudato Si', it is for exactly the opposite reason: because poverty and justice are among the Encyclical's central concerns. The document returns over and again to the theme of "how inseparable the bond is between concern for nature, justice for the poor, commitment to society, and interior peace."

In Laudato Si' the words poverty and justice keep close company with each other. Here poverty is not envisaged as a state that can be managed or ameliorated in isolation from other factors; nor are ecological issues seen as problems that can be solved without taking social inequities into account, as is often implied by a certain kind of conservatism. Laudato Si' excoriates this latter kind of "green rhetoric" and insists that "a true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor." This in turn leads to the blunt assertion that "a true ecological
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debt’ exists, particularly between the global north and south.”
Here again the contrast with the Paris Agreement is stark. When poverty finds mention in the Agreement, it is always as a state in itself, to be alleviated through financial and other mechanisms. The word never occurs in connection with justice—but this is scarcely surprising since there is only one mention of justice in the text and that too in a clause that is striking for the care with which it is worded: the preamble to the Annex merely takes note of “the importance for some of the concept of ‘climate justice’ when taking action to address climate change.”

The scare quotes that bracket the phrase “climate justice” and the description of the concept as being important only “for some” amount to nothing less than an explicit disavowal of the concept. But an implicit disavowal occurs much earlier, in one of the few passages in the text that is pellucid in its clarity: “the Agreement does not involve or provide a basis for any liability or compensation.” With these words the Agreement forever strips the victims of climate change of all possible claims to legal recompense for their losses; they will have to depend instead on the charity of a fund that developed nations have agreed to set up.

The differences between the two texts is never clearer than in the manner of their endings. The Agreement concludes by conjuring itself into being through the will of the signatories and by announcing the date of its self-actualization: the twelfth day of December, in the year 2015. The very syntax is an expression of faith in the sovereignty of Man and his ability to shape the future.

The prayers with which Laudato Si’ concludes, on the other hand, are an appeal for help and guidance. As such they are also acknowledgments of how profoundly humanity has lost its way and of the limits that circumscribe human agency. In this
haps closed to the forms of reason deployed by contemporary nation-states. Finally, it is impossible to see any way out of this crisis without an acceptance of limits and limitations, and this in turn, is, I think, intimately related to the idea of the sacred, however one may wish to conceive of it.

If religious groupings around the world can join hands with popular movements, they may well be able to provide the momentum that is needed for the world to move forward on drastically reducing emissions without sacrificing considerations of equity. That many climate activists are already proceeding in this direction is, to me, yet another sign of hope.

The ever-shrinking time horizon of the climate crisis may itself be a source of hope in at least one sense. Over the last few decades, the arc of the Great Acceleration has been completely in line with the trajectory of modernity: it has led to the destruction of communities, to ever greater individualization and anomie, and to the industrialization of agriculture and to the centralization of distribution systems. At the same time, it has also reinforced the mind-body dualism to the point of producing the illusion, so powerfully propagated in cyberspace, that human beings have freed themselves from their material circumstances to the point where they have become floating personalities “decoupled from a body.” The cumulative effect is the extinction of exactly those forms of traditional knowledge, material skills, art, and ties of community that might provide succor to vast numbers of people around the world—and especially to those who are still bound to the land—as the impacts intensify. The very speed with which the crisis is now unfolding may be the one factor that will preserve some of these resources.

The struggle for action will no doubt be difficult and hard-fought, and no matter what it achieves, it is already too late to avoid some serious disruptions of the global climate. But
I would like to believe that out of this struggle will be born a generation that will be able to look upon the world with clearer eyes than those that preceded it; that they will be able to transcend the isolation in which humanity was entrapped in the time of its derangement; that they will rediscover their kinship with other beings, and that this vision, at once new and ancient, will find expression in a transformed and renewed art and literature.