

Chapter 6

The Ruins to Come

If we face the reality of climate change honestly, taking into account how urgent a task lies before us and how dim is any hope we will act in time, we must acknowledge that a great shadow darkens our present moment. The biosphere changes apace; the land dries, the ice cap melts, the forests burn; those who lead our public institutions debate, stutter, and go silent; the prospect on which we rely throughout our daily activities erodes and falters; and the hope that inspires our political lives flickers and goes dark. We have always taken for granted that a livable future lies before us, that whatever happens to us now, tomorrow is another day. But we can no longer be so sure.

Human societies have always had a strong image of the future. Traditional societies have assumed that the future will be much like the present—that the tribe, kingdom, or nation will continue to replicate itself, generation by generation, sustaining the link to the gods, the legacy of the ancestors, and the fundamental human ways in perpetuity. Modern societies, in contrast, have held forth the image of the general liberation of the human race, so that at some point in the future no oppression or poverty, no ignorance or violence would afflict the Earth.

These images of the future, however, have relied on the even more basic assumption, never previously called into question, that the planet's ecosystems would remain intact and flourishing forever. The seemingly indestructible continuity of the living systems that surround us has made all our imaginings possible. But what happens if that continuity is in question—when we begin to realize that the Earth's ecosystems are vulnerable to destruction or decay?

Our first task in confronting this question is simply to absorb the significance of putting that continuity in doubt. How do our most basic

assumptions change when we begin to imagine the future differently? What, for example, takes place when we take the scenarios of general climate change, social dislocation, and perpetual adaptation seriously?

When scientists imagine what the world might look like in a century if we continue with business as usual or alter our energy economies a few years from now (and thus too late), providing details about changes to familiar landscapes and the consequences for the places we know best, they ultimately depict for us the ruins of our own culture. The best science available to us requires us to imagine an America with damaged coastlines, decaying forests, and drying soils, with countless trees, plants, and animals under severe distress—and to envision parts of coastal cities standing in the water of elevated seas, as well as the cities of the heartland crouching beneath the dust storms rising from parched fields.

These images capture for us the ruins of our own future. If we continue to live in the way we do today, we will eventually find ourselves in strange, almost unrecognizable places. Our own lives will change as well: because they will be at once something like what we know today and very different, with major elements missing and other elements adapted to new conditions, they too will be in ruins.

To think of ruins in this way provokes a new emotion. We are all familiar with images of ruins—of human structures, built long ago, that have survived the disappearance of the cultures that created them, have fallen into partial decay, and remain in the landscape as reminders of a distant era and as symbols of what time will inevitably do to all human enterprise. In the presence of the ruin, whatever it may be—from the Roman Colosseum to an abandoned farm down the road—one contemplates not merely one's own mortality but the mortality of cultures or historical eras; one senses a great gap between the intensity with which we pursue our goals and the indifferent flow of time.

But now, we contemplate the prospect of *future* ruins, conceiving of a cultural decline that has not yet taken place. Indeed, the thought of these ruins is so fascinating to us that we have long enjoyed depicting them fictionally in science fiction stories and movies. (Think *Planet of the Apes* or *Waterworld*.) More recently, however, those fictional scenarios have given way to sober forecasts of what *will* take place if we continue to live as we do. Reading the IPCC reports, we can find utterly serious,

detailed analyses of what is likely to happen if greenhouse gas emissions rise to a certain level. We no longer need science fiction to help us imagine future ruins: a generation of scientists is now analyzing our prospects while attempting to remove every trace of fiction from its scrupulous estimates. We can now absorb professional assessments of how dry central Africa and eastern Australia will become, how much the water levels in the Great Lakes will recede, how much of Bangladesh or Florida will be submerged, how much of the grain of northern China or the American Midwest will die under the greater heat of the sun. As we begin to think of adapting to these and other possibilities, what was once science fiction has become the reality of our world, the ruins in which we must prepare to live.

Those ruins are not terribly picturesque. Contemplating the remains of Mayan temples, we might take pleasure in the surviving structures of a distant culture. Contemplating the ruins of our *own* cities and landscapes is entirely different, if only because we still live in them. While we take in a fictional scenario, we might enjoy putting ourselves in a distant future to look back at the present with wonder or regret. But in reality, we take the ongoing viability of our lives for granted. To think about our future ruins, then, is ultimately to confront the fact that the world in which we now live is about to transform into something else—something we may not wish to live through at all. Those future ruins, in short, bear upon our *present*, casting a shadow over who we are.

Those future ruins are strange in another respect. In them, the idea of ruins will extend from buildings to landscapes, from landscapes to continents and seas, and then to the Earth itself. Today we can easily imagine that an observer a century hence, viewing a pine forest in Colorado, will see a good share of its trees browned and dying, others already fallen and in decay. Such an observer, having experienced part of the previous century and having learned about the rest, will see in that landscape the ruins of a forest. To think in this way of an ecosystem in ruins also provokes a new emotion. Where a visitor to the Colosseum might ponder the decline and fall of Rome, and thus the mortality even of the mightiest empires, this observer of the pines will contemplate something quite different. The inevitable mortality of nature? Not exactly: those pines stood there for millennia and presumably could have stood much longer. The

end of a civilization? Not quite: that civilization will no doubt be enduring in some form nearby, most likely in the observer herself. What, then, will these ruins speak of? The power of fossil-fuel civilization to put that forest into irreversible decline.

It might work, then, to say that the forest speaks of the ruins of a civilization. In that scene, then, a cultural disaster will be made visible in a wounded ecosystem. But even that unusual feature does not fully capture the strangeness of our future ruins. Normally when we think of ruins, we do not imagine that the people who built them still live on in them; those sites are abandoned and empty. No Caesars visit the Colosseum today to witness gladiatorial contests; somewhere along the way, the inhabitants of Rome gave up such spectacles and failed to maintain that ancient structure. No soldiers now patrol along Hadrian's Wall; it lost its original function, fell into disuse, and some of its stones were plundered for other purposes. A certain cultural continuity was lost, but the physical object remained. In contrast, we must imagine ourselves or our descendants actually living in the ruins of the cities we built—or perhaps in the less difficult regions nearby. In some sense, then, those future ruins will be the opposite of the picturesque ruins of the past: *we will outlive the environments we have destroyed*. The buildings we use will still serve important cultural functions, we will still live in their vicinity, and yet we face the prospect that eventually our use of them will no longer be tenable. We would *like* to stay in our cities; we would *hope* to maintain our traditions—yet our way of life will erode nevertheless. Strangely, that way of life, thanks to the ecological consequences of its very “success,” will end up interrupting *itself*, making itself unlivable and obsolete. After we realize as much, however, we or those who follow us will still live on, scrounging in the shadows of those ruins for habitation and sustenance. We will be part of the ruins, eking out a damaged way of life.

No doubt others in the past have lived through something like this experience. When enemies took over a city, burned it, and destroyed its sacred places, those who lived there know they witnessed the passing of their way of life. But they never doubted that the lives at least of their enemies would go on. When civilizations exhausted their surrounding environments, outliving the resources available to them—whether in ancient Mesopotamia or the Yucatan—people certainly lamented the passing

of their civilizations, but they could still assume that they might survive elsewhere and that they or their progeny could build anew.⁹⁷ The passing of a civilization, however enormous an event, is never definitive; everybody knows that something else will happen, another round of history will begin. And all these changes are paltry in comparison to the endurance of the natural environment that human beings take for granted. Rome falls, the Holocene endures, and thus Rome can be built again.

Not anymore. If anything, Rome still flourishes, only more successfully than ever. No previous generations have experienced anything approaching the abundance of modern life. Modern, industrial civilization is being replicated around the world, “developing” nations seek to join the club of wealthy countries, and the reckless consumption of the Earth goes on unchecked. Yet that fossil-fuel abundance is threatening the Holocene, the complex, relatively stable state of the Earth we have enjoyed over the last 10,000 years. Now, Rome flourishes so extravagantly that the Holocene will fall—and as a result, so too will Rome. We cannot be confident that other societies will flourish in place of our own; what will befall us will happen in some other way to all the world's cultures. Nor can we assume we will build anew. We may not yet know how to build anything that will endure on this transformed Earth; finding a way to do so will be a perpetual challenge. At least in one respect, the eclipse of our future will be *definitive*: it admits of no escape, for it will apply to the human species as a whole.

A defeat on this scale may still place us in a dilemma that others have faced. Other societies, after all, have been faced with even bleaker prospects, barred from sustaining their former traditions on their own terms. Consider the aboriginal Tasmanians. After they were colonized on their native island, decimated by disease and violence, and imprisoned by their European masters on a small portion of their former land, they found themselves so spiritually destroyed that they merely waited for death and within a few years disappeared entirely.⁹⁸ A less devastating version of this defeat happened in the recent past, not long after the fall of the Berlin wall. When capitalism swept over the Soviet Union, shattering the remnants of communism's promises, the life expectancy among men dramatically declined, as if the loss of that society's foundations gave them little reason to go on.⁹⁹ Neither society was especially heartened that

another culture would endure, for the world that mattered to them, the world that supplied them with their core system of beliefs and concerns, had vanished.

Our dilemma is a little like theirs: eventually, when we realize that no one can escape the future we have created, we too will have to doubt our core system of beliefs. But this time, no one will have defeated us; we will not be imprisoned, nor will we be the losers of the Cold War. We will have defeated *ourselves*. That event will at once distress us, since we will indeed be stuck on an Earth we never hoped to see, but it will also give us *some* hope, since as the agents of our own undoing, we would still presumably have the chance to do something about it. At once perpetrators and victims, we'll endure a crisis, to be sure, but we will still be confident we can face the crisis on our own terms, find means of adaptation, or discover some style of living on.

But too much confidence in this respect will be illusory. Until this point in our histories, we could take for granted that if we foresaw a danger to our collective lives, we could take action and ward it off. If we *did* something, we would see *results*. But if our societies fail to act soon and those positive feedback loops kick in, we will enter a truly bizarre condition. At that moment, if it has not already taken place, we will discover that the future we dread will arrive *no matter what we do in the present*. In that strange hour, the future will become at once inevitable and alien; it will bring about devastating events *even if* we attempt to prevent them.

Where we could once shape the future in some fashion, in that moment we will discover that the future has become estranged: *that* future, as well, will be in ruins. Of course, our actions even in that moment will continue to have an effect: they might prevent an even more devastating future from taking place or might save various aspects of the planet for later generations. But they will be too little and too late to prevent a wrenching change for all the world's cultures.

The possibility that we might cross those tipping points without knowing it makes our situation uncanny. If we do make that transition, it will take place silently, without notice—as if we are on board a ship that has been struck and will eventually sink even though we heard nothing of that blow and the band plays on. In a case like that, the events determining the future will have arrived already, while we carried on, oblivious.

Although our cultures will already be stricken, we will continue to participate in them as if they still thrive. Several recent movies imagine that ghosts are dead people who have not yet learned that they are dead; they haunt the living because they are ignorant of their true condition.¹⁰⁰ In a similar fashion, the world's societies, unaware of their actual state, may soon become phantoms, enduring in a posthumous condition.

But this depiction of ghostly cultures may still not do justice to our dilemma. For the most part, we tend to place these ruins in the future, whether we are enjoying fictional tales or pondering scientific assessments. We mostly assume that the major cultural dislocations caused by climate change are yet to come. But in fact those changes are already taking place. Some observers suggest that the dryer, hotter conditions in the Darfur region of the Sudan helped create the conditions for conflict and crimes against humanity there.¹⁰¹ Alaskan towns built on permafrost are tilting, their foundations cracking.¹⁰² Countless farmers around the world, including in the United States, are discovering that the seasonal rhythms on which they once relied are being suspended.

We are *already* living in a ruined future, already enduring changes in the biosphere for which we are not prepared. But why are we not ready? Why should the arrival of this future surprise us? Evidently, even though we are highly entertained with the *thought* of strange futures, projecting them endlessly in our fictions, we do not ultimately expect them to *arrive*: when they do, they seem premature, catching us by surprise. The very category of the future, it seems, floats in the distance; even if we are oriented to it as the basis of our present actions, we keep it on the other side of a conceptual wall, safeguarding the present from its arrival. The same is true of the scientific study of what climate change might do: while we may absorb what researchers tell us, their findings often remain mere information to us, not a vivid reality in our ordinary lives. Even if we *know* that climate change is happening and may devastate our homes, we might not truly *acknowledge* this fact to ourselves. The arrival of that future deprives us of the security and pleasure we take in contemplating it in the distance, throwing the conceptual map of our lives into disarray. When it arrives, it short-circuits what we thought we understood. Never having lived through such a change before, we cannot know what it will

be like to experience it. We are inevitably unprepared for this event; it can only take place when we are unaware.

Our tendency to keep the ruined future at a distance forces us into a contradiction: if its arrival has not taken place, then evidently we still have time (to argue about it in Congress, to negotiate new treaties, to prepare to alter our technologies), as if it is still years away; if it has occurred, then it's too late, and we need do nothing. Either way, we believe we don't really have to do a thing. Perhaps here again we live in the ruins of the future: modern culture has long since prided itself on its capacity to control its conditions, to plan for contingencies, to predict trends, to provide for long-term safety and security. The future, you could say, was its specialty. But this time around, those who manage the future are in over their heads. The future has been their specialty, just not *this* future. This version, it seems, is by *definition* too much to handle: we caused it, yet it eludes us, primarily because it contradicts our basic assumptions. We've been making life *much better*, not *worse*; the thought of a devastated future profoundly conflicts with everything we've been trying to do. If the future is in ruins, so also is our expertise in the future. But then the most basic premises of modern culture are in ruins as well.

At first glance, our way of enduring the prospect of these future ruins may share much with how we respond to our own mortality. We cannot know when our deaths may arrive; we might know that they will take place eventually without taking that prospect seriously; we might even have contracted a terminal disease without suspecting a thing. But does it follow that pondering the ruins is something like contemplating our own deaths? Are these meditations on dire events to come in some ways the same? In an older religious tradition, believers once meditated on the *memento mori*, a reminder of death such as a skull, to teach themselves that they would die, that all their passionate attachments and fierce longings would pass, that everything melts away, so as to set their sights on eternity instead. More recently, philosophers such as Martin Heidegger argued that the most authentic mode of being for us is *being-toward-death*, the direct encounter with our mortality.¹⁰³

But this analogy ultimately fails. Climate change is absolutely vaster than any individual's passing—even one's own. It is of another order of business entirely. We all know that individuals will die in the ordinary

course of things. But for a *species* to die is another matter altogether. An individual's death arises from the same process as its birth, its participation in reproduction, its maintaining a certain adaptive behavior within a particular ecological niche. Similarly, in the context of the biosphere's dynamic life, the passing of a species arises from the same process as its emergence, its flourishing, and its participation in the relationships of symbiosis or competition. Its extinction fits within the pattern of a wonderfully complex but coherent interaction. What we face, however, is not extinction of this kind, but the *murder* of species, ecosystems, oceans—purely as a result of the biologically unnecessary indulgence of our species. This is not death, nor even extinction, but a destructive intervention into the web of life.

Climate change, in short, does far more than mortality could ever do: it harms the lifeworld that sustains our species, and in consequence damages the societies in which our deaths have meaning, the cultural context for our own aspirations and achievements. It imposes an extra level of difficulty on each species, each society, each life—one that none previously had to bear. As a result, all will face something more than mortality, something altogether unanticipated and more strange.

This bizarre future differs from mortality in yet another way. Two centuries ago, in one passage of his elegy to John Keats, *Adonais*, Percy Bysshe Shelley wrote that when nature revives in the spring and the dead do not return, we are reminded that the circle of the year differs sharply from the shape of an individual human life. Spring cannot bring back the dead; ultimately, then, it cannot console us but instead revives our grief. He concludes this portion of the poem with these lines: “As long as skies are blue, and fields are green / Evening must usher night, night urge the morrow, / Month follow month with woe, and year wake year to sorrow.”¹⁰⁴ For the speaker of these words, human beings pass while nature endures. Today, however, we face virtually the opposite emotion. Under climate change, you, or I, or a friend may live on *beyond* the death of a local forest, the silencing of a nearby stream, or the browning of a neighboring green. The years will return, no doubt, and night will still urge the morrow, but whether nature will revive is another question. Where we once thought we would die and nature endure, we may instead survive

after the passing of an ecosystem we know. Our response to the landscapes surrounding us alters irreversibly.

In that case, our relationship to many other aspects of experience changes as well. Even in a nation as industrialized as the United States, the movement of the seasons serves as the basis of the ritual year, anchoring Easter and Christmas, Passover and Yom Kippur, Independence Day and Thanksgiving; as the seasons drift to new regions of the calendar, plants blossom or decay at other times, and the natural world becomes more confused, the significance of these ritual events changes too, speaking less of the deep turning of the world and more of sheer convention. Our association of youth with spring, of age with fall, begins to falter if spring comes too soon, if fall extends into winter; our metaphors start to melt away, even though youth and age remain to us. Our lives are cut adrift from the seasons, our span of time knocked askew from nature's rhythms, our mythic associations made threadbare.

We may in consequence find ourselves grieving more for the vulnerability of the biosphere than for our own. That emotion might lead us also to grieve for our excessive *invulnerability*, our capacity in these latter, hi-tech days to defeat disease, master the body's ills, and generally ward off aging and death—and for that matter to protect ourselves from cold or heat, reduce hunger and thirst, shrink every distance, and master further reaches of the unknown. We may end up wishing for a return of *greater* vulnerability, a more open acceptance of weakness and mortality, for only with that return might we release other forms of life from the devastating effects of our dominance.

Such thoughts, however, will ultimately demonstrate that our own mortality fades in comparison to something altogether more harrowing—the possible mortality of our societies, the natural systems we know, and to some extent the biosphere itself. In our world, the temporal coherence of a future into which our individual lives vanish—the coherence, in short, of mortality itself—is falling into decay. What once served as an instance of the ultimate contemplation is now dwarfed by a much more difficult thought, the prospect that our very metaphor of what endures and what is timeless has itself fallen into ruin.

Notes

97. On ancient Mesopotamia, see Clive Ponting, *A Green History of the World: The Environment and the Collapse of Great Civilizations* (New York: Penguin, 1991), 68–73; on the Maya in the Yucatan, see Ponting, 78–83 and Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Penguin, 2006), 157–177.
98. I refer to the fate of the Tasmanians after being rounded up and imprisoned on Flinders Island; see Robert Hughes, *The Fatal Shore: The Epic of Australia's Founding*, (New York: Knopf, 1987), 423.
99. Michael Wines, “An Ailing Russia Lives a Tough Life That's Getting Shorter,” *New York Times*, December 3, 2000, <http://www.nytimes.com/2000/12/03/world/an-ailing-russia-lives-a-tough-life-that-s-getting-shorter.html?pagewanted=all&src=pm>.
100. See, for example, *The Others*, directed by Alejandro Amenábar, 2001.
101. See Stephan Faris, *Forecast: The Consequences of Climate Change, from the Amazon to the Arctic, from Darfur to Napa Valley* (New York: Holt, 2009), 5–29.
102. Elizabeth Kolbert, *Field Notes from a Catastrophe: Man, Nature, and Climate Change* (New York: Bloomsbury, 2006), 13–17.
103. Martin Heidegger, *Being and Time*, translated by John Macquarrie and Edward Robinson (London: SCM Press, 1962), 279–311.
104. Percy Bysshe Shelley, *Adonais*, lines 187–189. See Donald H. Reiman and Neil Fraistat, editors, *Shelley's Poetry and Prose*, second edition (New York: Norton, 2002), 417.