Then the Endeavour, captained by James Cook, floated into Botany Bay in 1770, the Aborigines on the shore apparently paid no attention. So vast and unfamiliar was that 106-foot eighteenth-century ship that it was beyond the comprehension of those whose culture it doomed. Sinister yet invisible, it provoked no interest. Not until a longboat was lowered did they recognize the situation: a small boat meant invasion. Most fled, leaving two brave warriors to face Cook's musket shots and four or five babies whom the retreating adults could not carry. As this incident shows, the truly alien is often beyond our ken. Cognitive science documents many instances where people quite simply do not see what they cannot comprehend. Radical strange-

ness on an immense scale can fail to register.

Today, the Anthropocene poses a similar dilemma. This new geological epoch, not yet formally adopted by the International Commission on Stratigraphy, designates the transformation of the entire planet. Most recent scientific proposals posit a mid-twentiethcentury starting date, with the formation of a discrete strata of human detritus including concrete, plastics, radioactive isotopes and even chicken bones. According to this view, before around 1950, the earth enjoyed a relatively stable 11,700-year period known as the Holocene. Now the planet's chemical cycles of carbon, oxygen, nitrogen and phosphorous, its physical forces like storms and earthquakes, and its biological systems are behaving wildly, in ways unprecendented during the Holocene and sometimes for much longer. A recent article in Nature Geoscience speaks of our carbon release rate as higher than at any time in the past 66 million years. Scientists struggle with how best to articulate the magnitude of this transformation and whether to declare a new geological epoch, but their struggles are nothing compared with those of humanists. While scientists describe our morphing planet with ever greater precision, for those committed to understanding human cultures, the Anthropocene remains weirdly spectral, its meaning obtuse, and the proper response uncertain. Like Cook's ship, the altered earth is so vast and unfamiliar an artefact that cultural critics cannot yet see clearly what is so evidently before their eyes.

Both Amitav Ghosh in *The Great Derangement* and Jeremy Davies in *The Birth of the Anthropocene* grapple with this paramount problem of sight. Davies defines the Anthropocene itself as "a way of seeing", a category that can open our eyes. Ghosh extends sight beyond the human to other living creatures, arguing that "the Anthropocene has forced us to recognize that there are other, fully aware eyes looking over our shoulders". Both volumes, elegant and concise, are alert to the new relationship that needs to be forged between culture and climate change. Both books are aids to seeing the danger that looms, but in profoundly different ways.

Ghosh, who has previously broached environmental questions in fiction (*The Hungry Tide*, the *Ibis* trilogy, and elsewhere), here steps back from the role of storyteller to analyse modern literature, history and politics. His purpose is to show that all three cultural modes share assumptions that render climate change unthinkable, occluding our view of its dangers rather than aiding our understanding. These assumptions include the belief that the world behaves according to the rules of proba-

Sinister yet invisible

The radical strangeness of the Anthropocene

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Amitav Ghosh

THE GREAT DERANGEMENT Climate change and the unthinkable 196pp. University of Chicago Press. £15.50 (US \$22). 978 0 226 32303 9

Jeremy Davies

THE BIRTH OF THE ANTHROPOCENE 234pp. University of California Press. £22.95 (US \$29.95). 978 0 520 28997 0

bility, that we have agency over considerable areas of our lives, and that individual authenticity and self-actualization should be our central concerns. These assumptions may have made some sense on a calmer Earth before feedback loops started bouncing off each other erratically, but now the Anthropocene's wild shifts render these tropes of modernity utterly fantastic. And yet, argues Ghosh, we cling to them

In literature, Ghosh is primarily concerned

forms now blind us to reality.

So, too, does history. Like the novel in its dedication to narrative and moral adventure, the discipline of history has traditionally traced time's arrow away from nature to modernity. Today, argues Ghosh, "the Anthropocene has reversed the temporal order of modernity: those at the margins are now the first to experience the future that awaits all of us". Africa and especially Asia figure centrally in time's reversal, not only as victims of climate change but also as agents. Provocatively, Ghosh points out that imperialism may even have slowed climate change, since it was only after the Global South was freed from colonialism and began to pour out greenhouse gases that the situation became truly critical. The beginning of history, he suggests, has become its end, and the ethical valences of forces like imperialism are turned on their heads.

Finally, there is politics. Modern societies are wedded to forms and beliefs that prevent us from understanding the scale of our derangement. Treating politics as a moral arena where individual sincerity is of the utmost value, civic life no longer concerns our collective survival. Ghosh characterizes "the political" as "no longer about the commonweal". His prog-



with the realist novel. This mode of fiction purports to mirror our world through its naturalistic plots and dedication to "individual moral adventure". An inexplicable tangent, unprovoked alteration in mood, or rupture of sense pushes realist fiction into the realm of the picaresque, science fiction, or fantasy. Not only are these genres disdained by high culture, Ghosh thinks, but they also fail to represent our current predicament. As he puts it, "the Anthropocene resists science fiction: it is precisely not an imagined 'other' world apart from ours", but our own world that is troubled and strange. In short, realist literary

nosis is grim. To tackle climate change, we would need not only to overcome climate denialism and our reliance on fossil fuels, but also our commitment to moral uplift. The radical restructuring of global power requires more than a good conscience and respect for individuals. From this perspective, the humanities and human sciences confront their greatest challenge armed only with rusting tools forged for another age. "The climate crisis is", as Ghosh writes, "also a crisis of culture, and thus of the imagination."

Like *The Great Derangement*, Davies's evocative volume is fundamentally concerned

with the Anthropocene. A professor of English literature at Leeds, Davies has plunged into the earth sciences with more enthusiasm than precision. Instead of locating us in geological time, Davies's shaky grasp of the facts produces four versions of our condition. At certain points, he writes of the Holocene in the past tense, admonishing us not to be sentimental about it. At other points, we are called on "to dwell within and to shape the terminal crisis of the Holocene", as though the Anthropocene were still to come. Other passages describe our predicament as the moment of transition between the Holocene and the Anthropocene: we are "living in the fissures between one epoch and another". Finally and most mysteriously, Davies points to a time beyond the Anthropocene. He claims that "too many writers have been preoccupied with what comes after the Anthropocene as it is presently known", without explaining how these unnamed writers came to be obsessed with such a distant future. In any case, whether we are currently in the Anthropocene, the Holocene, between the two, or worrying ourselves unduly about a period thousands if not millions of years from now. Davies dismisses the possibility of climate mitigation and the goal of sustainability. He calls instead for "fostering ecological plurality and complexity".

Along with science, The Birth of the Anthropocene takes up politics, calling for more equal extension of the "civilized rights and pleasures previously confined to the Holocene". Among these "civilized rights and pleasures" are "symphony orchestras and hypodermic needles, moon landings and gender equality laws, patisseries, microbreweries, and universal suffrage". This happy hope, unfortunately, is precisely what the Anthropocene makes impossible. As Davies fails to recognize fully, the longboats of shorter growing seasons and shorter lifespans have already been lowered. Climate refugees, rising seas and reactionary forces are already undermining "civilized rights". Holocene goods and values, always spotty even in better times, are harder to secure in the Anthropocene, let alone extend more broadly. In the end, Jeremy Davies appears primarily concerned with attitude adjustment: if one insists on "mourning [the Holocene's] passing it should be done in a critical, even ironic, frame of mind". In other words, his politics is ultimately personal, illustrating Ghosh's point that "individual moral adventure" remains our culture's central concern. Whether irony can open our eyes to the enormity of the Anthropocene is doubtful, though it may allow us to distance ourselves emotionally from the world we are losing.

As both books show in their opposing ways, the radical strangeness of an altered Earth System confounds our tools of cultural analysis. Towards the end of his discussion, Amitav Ghosh asks how the future will look back on our age.

Is it possible that the arts and literature of this time will one day be remembered not for their daring, nor for their championing of freedom, but rather because of their complicity in the Great Derangement? Could it be said that the "stance of unyielding rage against the official order" that the artists and writers of this period adopted was actually, from the perspective of the Anthropocene, a form of collusion?

Ensuring that the answer is not a resounding "yes" will require supple minds, a firm grasp of facts, and soaring imaginations.