gap between the language of the past and the language of the present. Within this gap, a new kind of opportunity emerges: to let go of or escape the modern myths that divide humanity and to free up space for us to ask new questions and tell different stories.

'Any search for origins', writes Buck-Morss, 'will discover at the source, not the purity of identity categories but the moment of these categories' disappearance.' Like her previous books, Year One is animated by the desire to think anew about universal history. This project is not guided by the desire to find one common origin story or myth. Rather, Year One invites us to think about the universal as a loss of origins, an inaugural ambiguity, and a multiplicity of differences at our supposed genesis: 'Here is the wager: if the first century can be reclaimed as common ground rather than the origin of deeply entrenched differences, then its very remoteness in time has the potential to lift modernity's self-understanding off existing foundational constraints ... A tiger's leap. The task is to liberate the past from the concepts that purport to contain it; to suspend the structuring schema of history as modernity's content. To fall out of modernity itself' (emphasis mine).

Year One, then, leaves its reader asking where such a fall out of modernity might take us? What kinds of community emerge from the disappearance of origin stories?

What forms of historical writing can both accept the dispersion of entrenched differences and refuse reductive homogeneity?

One potential weakness of *Year One* is its emphasis on transcendence. Buck-Morss casts modernity in an almost entirely negative light and, therefore, argues that we must move beyond its terms absolutely. Yet we might ask: Has identity (a key term of modernity for Buck-Morss) not also produced forms of emancipatory politics? Are all adoptions of modernity's terms equivalent? How do we think about feminist, postcolonial or diasporic writers who have immanently reclaimed modernity's terms? Buck-Morss avoids these difficult questions by refusing to engage in key contemporary debates and, instead, turning to an 'outside' of modernity through the first century.

On the other hand, the strength of *Year One* is its commitment to a new vision of philosophy, history and politics. *Year One* seeks to remind us that we need not think of the past or the present as ossified. We can discover unexpected worlds in historical archives. And, inspired by these discoveries, we can think in a radically different manner about disciplinary structures, the future of the humanities, and the binds that connect us across space and time.

Nasrin Olla

Earth systems

Dipesh Chakrabarty, *The Climate of History in a Planetary Age* (Chicago: University of Chicago Press, 2021). 296pp., £76.00 hb., £20.00 pb., 978 0 22610 050 0 hb., 978 0 22673 286 2 pb.

The bright red time ball atop Flamsteed House at the Royal Observatory in Greenwich rises halfway up its mast each day at 12:55 p.m., to the top of the mast at 12:58 p.m., and drops suddenly to the bottom at exactly 1:00 p.m. Like the BBC's famous pips, the ball is what is called a time signal – a visual or aural sign used to synchronise time across sometimes vast geographical distances. When first used in 1833, the time ball signalled the time to merchant vessels, fishing boats and warships on the Thames. Before the near-instantaneous communication offered by the telegraph, watchmakers would travel to Greenwich to synchronise their goods, and one enterprising London family offered this service for a fee. Such temporal synchronisation is measured in relation to a single line that still serves as the reference point for global spatial and temporal coordinates: the Greenwich Meridian.

The global spatial and temporal ordering of the earth marked by the Meridian, whose location was decided on by delegates from twenty-six states at the 1884 Meridian Conference in Washington, D.C., is the culmination of centuries of European imperial voyages that aimed to map and conquer the so-called 'free space' of the globe outside Europe. Today, scientists are hard at work trying to establish a new measure of earthly time in the form of a geological time signal: a Global Boundary Stratotype Section and Point (GSSP) for the Anthropocene. Otherwise known as a 'golden spike' after the bronze discs geologists use to mark GSSPs, the term refers to a section of rock that designates 'the lower boundaries of stages on the geologic time scale'. GSSPs are rock strata that contain common or distinctive fossils or other material that signal a global change that marks the start of a new geological time period. Proposals for an Anthropocene GSSP range widely, from particulate matter linked to the burning of fossil fuels to the global dissemination (and disposal) of the iPhone. Whatever geological phenomenon is chosen as the Anthropocene time signal, it must exhibit a 'globally synchronous' marker of humans' geological impact on the earth.



These time signals – Meridian and GSSP – might, in Dipesh Chakrabarty's terms, mark the difference between the global and the planetary, human time and earth time. Though universal or 'Cosmic' time, as it was called by UK Meridian Conference delegate Sanford Fleming, is today synchronised by satellite signals, the vision of the spher-

ical globe agreed to in 1884, as Chakrabarty reminds us, is not an artefact of a bygone age but remains the basis of Google Maps software and Geographical Information Systems today. Chakrabarty's globe represents the modern humanism that he argues is giving way to 'the planetary' as a result of a growing consciousness of anthropogenic climate change. This 'new historical-philosophical entity called the planet', according to Chakrabarty, is a view of the earth as a single interconnected system - the 'Earth system'. Given that 'the age of the global as such is ending' and 'we are on the cusp of the global and the planetary', the task for historians, Chakrabarty argues, is to relate these two models of humans' relationship to the earth and life on its surface. Yet their shared commitment to global synchronicity suggests that the planetary age may end before it begins.

It is around the time of the 1884 Washington Conference, when European colonisation had reached its apex, that the international political system is said to have become a fully global political order. Hedley Bull, a key figure in the 'English School' of international relations, wrote in 1977 that 'throughout human history before the nineteenth century there was no single political system that spanned the surface of the world as a whole', but that 'since the late nineteenth and early twentieth century there has arisen for the first time a single political system that is genuinely global.' Prior to this political globalisation, in Bull's view, 'world order was simply the sum of the various political systems that brought order to particular parts of the world', whereas the expansion of international society across the globe means that 'order on a global scale ... is the product of what may be called a world political system.'

Not coincidental, then, is the coincidence of talk of global warming and globalisation in the 1980s and 1990s. It is only once climate begins to be conceptualised as a systemically interconnected unity rather than in local or regional terms that it becomes an object of concern for the UN and other international institutions. This happened alongside the conceptual separation – still refused by climate deniers – of climate from weather, a distinction that rests on understanding climate as systemically connected rather than a simple aggregate of local weather patterns. The Intergovernmental Panel on Climate Change, for example, drew on computer models of earth's atmosphere to understand climate as a dy-

namically interconnected global system not reducible to regional weather and thus as a force that has significant effects on the earth as a whole.

This kind of global unity is the object of earth systems scientists and the emerging planetary boundaries framework. Originated by Johan Rockström and colleagues at the Stockholm Resilience Centre (SRC), the framework (the subject of a recent Netflix documentary called Breaking Boundaries featuring Rockström) posits nine planetary boundaries that establish a 'safe operating space' for the human species. These geophysical systems range from ozone depletion, climate change, biodiversity loss to global phosphorous and nitrogen cycles threatened by industrial use of agricultural fertilisers. Five of the nine boundaries - climate, biodiversity, land use, nitrogen and phosphorous cycles and chemical pollution – have already been broken with the rest rapidly approaching. The SRC reported in January that the chemical pollution boundary is the latest threshold crossed as plastics and other toxic human-created compounds accumulate in the biosphere at an unprecedented rate.

Earth Systems Science (ESS) is organised around the view that anthropogenic climate change caused by political and economic globalisation has transformed the human species into a geological force. For Chakrabarty, this disturbs the distinction between humans and the natural world central to many modern claims to political authority. Scientists' claim that humans have 'become a force capable of changing ... the climate system of the planet as a whole' challenges the distinction between natural and human history that informs most historical scholarship. There is a dizzying variety of terms used to signal this shift, like Capitalocene, Cthulucene and Eurocene, each of which emphasise a different cause or characteristic of the contemporary predicament. Chakrabarty prefers Anthropocene, a condition marked by the shift from a global to a planetary conception of the earth.

This preference is linked to Chakrabarty's insistence that the problems brought into view by the planetary are irreducibly collective. The key feature of the planetary is that it decentres the human by placing the species against a backdrop of geological processes that take place on vast timescales that are not normally the subject of historians' attention. While histories of capitalism, for example, provide partial explanations of planetary warming on earth, the history of climate change, Chakrabarty maintains, is not synonymous with the history of capital. ESS, he points out, is not specific to earth but is a 'planetary science' that studies earth as one among innumerable other planetary bodies in the universe. From this perspective, 'our current warming is simply an instance of what is called planetary warming.'

Chakrabarty locates the origins of earth systems science in the planetary focus of NASA scientist James Lovelock and his 'Gaia Hypothesis', which conceived of the earth as a single geophysical system. But while scientists at NASA were looking skyward, the government that funded it was looking East to a raging cold war in which NASA was a significant weapon. US and Soviet military funding spurred research on earth systems in the 1950s and 60s as Cold War militaries sought meteorological, oceanographic and geophysical knowledge to control the weather, develop submarine routes, study new theatres of war like the arctic and predict the fallout effects of a possible nuclear conflagration. This research led to computer modelling of geophysical systems of the kind eventually used by the Intergovernmental Panel on Climate Change. While Chakrabarty may be right that there would be no climate discourse without ESS, it is hard to imagine ESS without states and their imperial ambitions. The science of climate, like the science of space that resulted in the Greenwich Meridian, is entangled with war and empire.

The Climate of History in a Planetary Age, however, is not a history of climate change, climate science or climate historiography but an analysis of the consequences of the growing consciousness of humans' status as a geological force for the practice of history as an academic discipline and a form of popular knowledge. The planetary enjoins historians to 'connect deep and recorded history' by placing human history within the geological history of the earth and the history of life on its surface. It is in this sense that 'one can ... read Earth System Scientists as historians working within an emergent regime of historicity.' The category 'planet' emerges when history is practiced simultaneously on the 'two registers' of earth history and the human history of modern empires and their globalisation.

Relating these two registers reveals how recent and precarious is the life of the human species on earth. The lesson of the planetary is that 'we cannot afford to destabilize conditions that ... work like boundary parameters of human existence.' At the same time, Chakrabarty admits that human endangerment is an eminently political question that cannot be decided by scientific expertise alone. In this sense, 'the entity to which climate change pose[s] a real threat [is] human civilization as we have come to understand and celebrate it.' The 'parametric conditions' that global warming threatens are conditions 'for the existence of institutions central to our idea of modernity.' The human of the planetary boundaries framework is a specific kind of modern subject secured by the political, economic, social and technological institutions that have developed on earth over the last five centuries. Is it the human as such that the Anthropocene threatens, or the human that brought about the Anthropocene and its terrible effects?

The problem of climate change, Chakrabarty found, could not be addressed with the 'theories of globalisation, Marxist analyses of capital, subaltern studies, and postcolonial criticism' with which Chakrabarty has built an impressive body of historical and philosophical writings. The question is 'how do we relate to a universal history of life ... while retaining what is of obvious value in our postcolonial suspicion of the universal?' As political battles are fought between the 'lumpers' and the 'splitters', as Chakrabarty calls advocates of universality and particularity, the task remains to negotiate the relationship between the twin facts of unity and diversity on earth.

This question is especially acute in the context of 'climate justice', the idea that states should be held responsible for mitigating climate change to a degree proportional to their responsibility for causing it. Inequality in this respect is extreme. Climate justice is closely tied to the idea that the modernising projects of postcolonial states should continue. How can India's growing middle class be denied the air-conditioners that contribute to climate change but also keep them alive in increasingly unbearable temperatures? Rather than dismiss the aspirations of 'anti-colonial nationalism' which 'remains programmatically committed to modernization', even in the context of a warming world, Chakrabarty argues that the 'ethical aspects' of these still-powerful desires for global modernisation must be addressed 'if one is to plumb the depths of the human predicament today.'

The planetary also enjoins historians to consider humans' entanglements with the non-human – living and otherwise. Alongside the environment, in Chakrabarty's view subaltern studies pays insufficient attention to specific inequalities like caste rather than general categories like class. Chakrabarty reflects on caste by drawing on his experiences as a youth in Kolkata in an essay on the 'Dalit body' as an example of human intertwinement with the non-human. While 'marginalized because of its forced contact with death and waste matter', Chakrabarty prefers to see in the Dalit a 'planetary body' that spurs thinking on the entanglement of humans with their others. The problem is the way modern political aspirations to freedom, equality and self-determination depend in some respects on a vision of the human autonomous from nature and thus 'how difficult it still is to "politicize" this connected figure of the human.'

Yet human embeddedness in 'deep time', as Chakrabarty points out, is a feature of European political philosophy from the eighteenth century, when there was a broad shift from classificatory systems of nature, like those of Linnaeus, to a view of nature as dynamic and evolutionary, in which organisms are subject to development over time. This view of natural history can be found as early as Aristotle's writings on politics. For Immanuel Kant, a figure emblematic of this transformation alongside others like Buffon and Humboldt, enlightenment and progress are only possible collectively, at the level of the human species. This framing of human possibilities on earth involves teleological conceptions of progress that produce hierarchies built on categories like race and civilisation. These are present both in Kant's work and in nineteenth-century geopolitical thought in which geological processes are considered central to human political life.

Geographer Friedrich Ratzel, for example, father of German *Geopolitik*, argued that 'Man' must be studied 'as a life phenomenon of the earth'. Writing in 1902, Ratzel explained that 'Cosmic influences may broaden or narrow the districts within which Man is able to exist, as was experienced by the human race during the glacial period, when the ice sheet first drove men toward the equator, and, later, receding, enabled them once more to spread out to the north.' Questions about the formation of the earth's crust cannot be 'left to geology' because they concern the geographical formations that influence the character and limits of human political communities. Though no prophet of climate change, Ratzel connects geological, biological and human history to draw conclusions about the limits of human political life on earth. Ratzel's work, and his now-infamous concept of lebensraum, would be used in the twentieth century to justify German genocide in South West Africa and Nazi imperialism in Europe.

This history makes Chakrabarty's lament that 'we don't yet know how' to understand ourselves 'as a species deeply embedded in the history of life' ring hollow. The relationship between human beings, the earth and political authority has been the subject of philosophical reflection for centuries. The likelihood is rather that it is specific answers to this question that have led to the current predicament, rather than their absence. More compelling are the images included in the book of a child playing with earth-moving vehicles in a sandbox that Chakrabarty argues demonstrate the naturalisation of humans' 'geomorphological agency'. This aligns with the way species thinking infuses contemporary politics, from biologically reductionist visions of race and nation to categories in international law like crimes against humanity. Moreover, humans' vulnerability to wider astrophysical forces drives scientific efforts to defend the planet from asteroid strikes and telecommunications networks from disruption by solar flares. This view is of course also present in the widespread alarm about the catastrophic environmental effects of political and economic globalisation.

This alarm tends to be channeled in two ways. The first is a narrow, technocratic response that asks how best to source the energy needed to continue the project of global modernity. The second sees the Anthropocene as an 'ecological overshoot on the part of humanity', indicative of a 'shared predicament' among life on the planet. Here Chakrabarty departs from the earth systems scientists who inspire his reflection. While Breaking Boundaries concludes with Rockström calling for the planetary boundaries problem to be taken up by the United Nations (UN) Security Council, Chakrabarty suggests that the UN may be closer to the problem than any solution. While UN negotiations take place on an 'indefinite calendar', climate presents an urgent problem that calls for action on finite timelines. 'It is entirely possible', he writes, 'that planetary climate change is a problem that the UN was not set up to deal with.' The problem of temporal scale might also be posed in terms of the relatively short time horizon in relation to which UN decisions are made, which rarely points beyond the current century. Compared to the geological timescales that characterise the planetary, decision-making at the UN is all too human.

Despite Rockström's call for Security Council action on planetary boundaries, states so far remain uninterested in the location of the Anthropocene GSSP. Climate accords like the Paris Agreement, however, suggest that the limits earth systems impose on global political and economic order are now recognised by most states on earth. Perhaps soon they will convene to weigh in on the question of an Anthropocene time signal. Whether this should be feared or celebrated depends on one's answer to a question likely to animate the world politics of this century: who has authority over the earth?

Regan Burles

God's away

Willem Styfhals, *No Spiritual Investment in the World: Gnosticism and Postwar German Philosophy* (Cornell University Press, 2019). 306pp., £112.00 hb., £32.00 pb., 978 1 50173 099 3 hb., 978 1 50173 100 6 pb.

Willem Styfhals' new book offers a conceptual history of Gnosticism within a deceptively narrow discursive field. Though Gnosticism re-emerged and become a relatively widespread term in German thought from the end of the nineteenth century onwards, gaining particular prominence in the interwar period, Styfhals takes as his principal focus the philosophical debates around Gnosticism that took place after 1945.

At the core of this decision, and central to the concerns of the book, is the radical caesura in the theoretical usage of Gnosticism engendered by the events of the Second World War, and the atrocities of the Holocaust. What emerges through this combination of conceptual historiography and comparative analysis of the 'Gnostic