

BOOK REVIEW ESSAY

The Anthropocene and the geography of everything: can we learn how to think and act well in the ‘age of humans’?

Reviewing *Altered Earth: Getting the Anthropocene Right*, edited by Julia Adeney Thomas, Cambridge: Cambridge University Press, 2022, 277 pp + xvii, ISBN 978-1-009-04553-7 paper, 978-1-316-51747-5 cloth.

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Abstract: Geoscientists claim that we live in a new geological epoch, such is the magnitude, scale and scope of the human impact on the Earth. Yet the Anthropocene cannot speak for itself: it requires spokespeople to analyse and evaluate its character and meaning. The Anthropocene necessarily mediates our understanding of the Anthropocene. This review essay assesses one of the latest editions to 'the scene', the book *Altered Earth* (2022) edited by Julia Adeney Thomas. Aimed at those with little prior knowledge, *Altered Earth* raises questions about how best to represent the fast-expanding Anthropocene so that neophytes can grasp the key questions, issues and debates. Like it or not, the Anthropocene presents truly formidable challenges to thought and action. The richness of the Anthropocene needs to be parsed in ways that allow those outside it to comprehend the principal analytical, moral-ethical, aesthetic and practical problems, perspectives and opportunities.

In their recent book *Does the Earth Care?*, philosophers Mick Smith and Jason Young assert that 'Humans do not bestow purpose on the Earth, any more than we speak for it' (2022, p.32). I know what they mean, but in one respect they are wrong. As Bruno Latour once put it, exaggerating only slightly, 'No reality without representation!' (2004, p.127). This is especially true in the case of the Anthropocene, a geoscientific concept that translates loosely as 'the age of humans'. Coined over 20 years ago, it signifies human impacts on the Earth of unprecedented magnitude, scope and scale. Yet this altered Earth, comprised of interacting 'spheres' (the atmo-, cryo-, hydro-, pedo- and lithospheres), is unable to speak for itself. As Mike Hulme has noted of the climate, it 'cannot be experienced directly through our senses. Unlike the wind we feel on our face or a raindrop that wets our hair, climate is a constructed idea' (2009, pp.3-4; also Hulme, 2020). So too is anthropogenic climate change, of course, which the Anthropocene concept subsumes. In both cases, geoscientists have ordered and interpreted information about global environmental change in ways that alert us to phenomena about which we would otherwise only be dimly aware.

While this change is undeniably occurring, we can only register it as *global* and *epochal* by way of books, articles, documentaries, podcasts and other communicative media. 'Precisely because [the world] ... is something that must be represented,' geographer Bruce Braun once wrote, 'the *act of representation* becomes that much more important, for it necessarily constructs that which it speaks for' (Braun, 2002, p.260). This directs us to the Anthropocene¹, the fast-growing body of cognitive, normative, affective and aesthetic claims being ventured by all manner of people speaking about the why, how and what of our new planetary condition. Geoscientists anchor this scene, with civic trust in the scientific enterprise essential to propositions about the Anthropocene being perceived as broadly

¹This fairly obvious word-play has been used in print for several years now, by myself and several others (e.g. Chaudhuri, 2015).

credible among social scientists, humanists and others. As political philosopher Laura Ephraim phrases it, 'When scientists speak publicly about things they have observed, measured and analysed in the lab or the field, their words carry special weight' (Ephraim, 2018, p.1). Since 2000, the Anthropocene neologism has spilled out beyond the geoscience world and is a word that now commands considerable attention, at least in universities (if not society at large). In another decade, it might become part of the global *lingua franca*, in ways terms like 'net zero emissions', artificial intelligence and 'post-truth' are today in various public arenas.

A multi-disciplinary book, *Altered Earth* is among the latest additions to the mushrooming scene. When the late Paul Crutzen coined the word 'Anthropocene' in Mexico in 2000 (unwittingly following Eugene Stoermer), he could scarcely have anticipated what it would trigger within and beyond the International Geosphere-Biosphere Program (IGBP) he was then a key member of. This year (2022) alone, aside from a slew of geoscience publications in journals such as *Earth's Future*, there have been multiple books (including Smith and Young's), reports, workshops, seminars, keynote lectures, exhibitions, films and TV documentaries that go beyond the science *sensu stricto*. Many involve discussions of the suitability of the Anthropocene label, with other terms proffered as substitutes by critics. It is now very hard for members of 'the scene' like me to keep up, let alone anyone new to the many and varied discussions about what the Anthropocene is, whether it is really happening, and what it betokens. Indeed, the most complete review of the academic literature to-date, published in 2021 by Hans Gunter Brauch, and covering the 2000-2020 period, shows that the literature's rate of increase is now geometric (Brauch, 2021). Few will have the time, skill or energy to survey the burgeoning scene in its entirety.

This raises a question for Anthropocene insiders and outsiders alike: which books, chapters, articles and so on stand out from the crowd and are worthy of sustained attention? Whose voices should we listen to? Of course, the answer depends in part on one's needs and aims: for instance, are you teaching an introductory undergraduate module, seeking to advance the research frontier, or simply wanting to satisfy your curiosity? In the case of *Altered Earth*, the intended audience is neophytes, be they degree students, academics or interested members of the public. As I will now explain, for such an audience the book is less than the sum of its many high quality parts. I could see myself using select chapters of *Altered Earth* in further reading lists for several lectures in 'The Human Planet', a level 1 undergraduate module that I have taught at the University of Manchester since 2017. But to make sense of the book as a whole requires quite a bit of prior understanding of the Anthropocene across geoscience, social science, the humanities and even parts of the creative arts. Lacking such prior understanding, it is likely that many potential readers of this book will find it fairly low on substantive, as opposed to nominal, integrity – to the point, perhaps, of being a little confused by the (undoubtedly rich) mixture of contents.

The book is edited by the American historian Julia Adeney Thomas at the University of Notre Dame. She is also co-author of *The Anthropocene: a Multidisciplinary Approach* (Thomas, Williams & Zalasiewicz, 2020). The twelve chapters of *Altered Earth* are highly accessible, though not in any way simplistic. As the editor puts it, 'We assume no specialist knowledge. Our goal is not to impress readers with our erudition ..., but to open vistas on our common planetary dilemma' (Adeney Thomas, 2022a, p.4). The book is, inevitably, quite geographical

– I say inevitably because it is in the nature of the Anthropocene concept to signify multi-scalar spatio-temporal interactions and the erosion of the society-nature distinction. Among the book's contributors are what can now be called luminaries in the world of Anthropocene discourse, notably Manuel Arias-Maldonado (University of Málaga), Clive Hamilton (Charles Sturt University), Will Steffen (Australian National University), Mark Williams and Jan Zalasiewicz (both Leicester University). There is also a foreword by Dipesh Chakrabarty (University of Chicago), whose beautifully written book *The Climate of History in a Planetary Age* (2021) came out recently. None are geographers by training but, as just noted, that does not lessen the geographical flavour of this book.

The chapters of *Altered Earth* variously introduce readers to Anthropocene geoscience and to some of the implications (for people and planet) of the end of the current interglacial epoch (the Holocene). The contributors range from geoscientists like Steffen to a novelist (Amitav Ghosh) to the director of Berlin's Haus der Kulturen der Welt (Bernd Scherer). The topics vary. There are broad overviews of the science (e.g. Jan Zalasiewicz on Earth Systems Science and stratigraphy) and focussed discussions of renewable energy (Cymene Howe and Dominic Boyer) through to imaginative journeys into the future (by Hamilton and Williams *et al.*). Adeney Thomas has done a good job in cross-referencing the chapters, writing two of her own (to be mentioned presently). The book is handsome, if rather text-heavy and lacking sufficient visual aids. The quality of the writing is high: the chapters are uniformly lucid and engaging. For a knowledgeable reader already immersed in Anthropocene discourse, the book provides a fun pick-and-mix. For instance, the chapters by Zalasiewicz and Steffen are effective introductions to the geoscience that I would happily recommend to the undergraduate students who I teach. Meanwhile, Francine McCarthy's focussed chapter about lake sediments helped me better understand how a golden spike location in stratigraphy is chosen, while Hamilton's fictional short story transported me to a vaguely believable future of bitter human regret.

For my money, the best chapters are Thomas's brace, and the one written by Arias-Maldonado. The editor's introduction (chapter 1) summarises the Anthropocene concept, sketches its origins, notes its evolution from buzzword to academic keyword, and identifies the elemental tension in all discussions about the new epoch: namely, that while interlocutors need to agree that the geoscience is broadly right, the implications of the science do not yield unified global goals or policies. This tension is the subject of Thomas's substantive chapter (number three) about Anthropocene geoscience, social science and the humanities. Here she explores how narratives help us think about our planetary past, present and future. She discusses the productive contradiction between a 'Singular Story' and what she calls 'A Democracy of Voices'. Somehow, humanity will need to act in concert to manage life on a global scale and in the very long term, yet this need not commit all people to one way of living on Earth. There will be debates, and no doubt intense conflicts, about best ways forward. It is open to question whether we can create the global institutions required to stage the debates properly and thereby to foster political resolutions rather than grid-lock. Arias-Maldonado (chapter seven) explores the options for Anthropocene governance in his excellent chapter. In ideal typical terms, he lays out the differences between a liberal democratic paradigm, an eco-authoritarian one and a green communitarian one. This chapter will be a good teaching aide that helps students and general readers see the possible political trajectories that lie ahead, and is much less

demanding than the brilliant speculations of geographers Geoff Mann and Joel Wainwright in their book *Climate Leviathan* (Mann & Wainwright, 2019) and elsewhere.

To understand why, overall, the book's contents are a shade too disparate, let me speculate on what it might mean to 'get the Anthropocene right', which is the stated aim of this book (as per its subtitle). Sensibly, Thomas uses 'right' in a meta-analytical and meta-normative sense. She is not saying that there is one – and *only* one – specific way to understand and address the Anthropocene challenge (as per her focus on 'A Democracy of Voices'). Instead, what she is saying is three things. First, that there's a broad scientific consensus that the Holocene is ending which deserves to be understood accurately by outsiders/non-specialists. Second, that in human terms the Anthropocene is necessarily complex because it involves 'a kaleidoscope of experiences, contingencies and decisions that led to it' (Thomas, 2022a, p. 1), never mind the varied stakes of the Anthropocene for differently situated human beings alive today and tomorrow. And third, because the Anthropocene forces us to take the long view, for Thomas we need to get it right imaginatively by envisaging futures that accommodate many definitions of a 'good life' in a post-Holocene world – one that will become inhospitable for many people and non-humans. Various techniques and genres of futuring today will have a large bearing on how we and our descendants experience tomorrow. Thomas summarises this right-thinking trinity as *accuracy*, *balance* and *justice*, commending the book on all three counts.

By this measure, several existing texts about the Anthropocene do not quite get it 'right'. For instance, consider Christophe Bonneuil and Jean-Baptiste Fressoz's *The Shock of the Anthropocene* (Bonneuil & Fressoz, 2016), one of the first multi-disciplinary overviews of the topic. It is balanced in that it presents many narratives, some of which do away with the Anthropocene as a descriptor in favour of substitute terms such as 'Thanatocene'. But the accuracy of the book's depiction of geoscience would be open to question from Thomas's perspective. This because Bonneuil and Fressoz depict it as necessarily political in its framing of the real. Yet surely a 'balanced' account of the Anthropocene attuned to procedural and substantive justice (including ways and means to unpack what 'justice' should and could mean in a post-Holocene world) needs, among other things, to grapple with the discursive partiality and 'selective objectivity' of geoscience. For instance, seeing the Earth as a hyper-complex, integrated super system is but one framing (often elided with a Gaian one), and is potentially consequential for policy and practice: the next several hundred years will likely see applied geoscientists lead on geoengineering interventions of various kinds justified in the name of 'Earth System regulation'. Geoscience occupies an awkward position in the Anthropocene. It has sounded the metaphorical alarm for the benefit of humanity, but its attempts at a faithful representation of planetary change cannot be disentangled from contestable non-scientific values of a political, moral and aesthetic kind. As Ephraim (2018, p. 141) phrases it, commenting on science in general, 'the sciences are political because they are among the most important sites where [people] ... have struggled with and against each other to inherit, dismantle, rebuild and preserve the world.'

This exemplifies how *Altered Earth*, whatever its other merits and despite the editor's best intentions, does not quite get the Anthropocene right. Given that it presumes little to no prior knowledge on the part of readers, it lacks the coverage and cohesiveness those readers might reasonably want and expect – a cohesiveness (if not necessarily coverage)

found in Adeney Thomas's own recent co-authored book or, say, the geographer Erle Ellis's *The Anthropocene: A Very Short Introduction* (Ellis, 2018). The question then becomes: what would a truly 'accurate, balanced and just' representation of the Anthropocene look like? What take on the 'scene' would allow readers to grasp fully the major topics of debate about 'the cene'? Given the size, diversity and complexity of the scene, it's rather hard to answer this question, beyond noting that geoscience, social science, humanities and the arts (modern and traditional) should all feature in any account. Each domain helps us register the Anthropocene as an object, variously, of analytical, moral-ethical, affective and practical concern. In the end, no one register matters more than the others, with each requiring our serious and sustained attention.

In my view, beyond a suitably two-sided treatment of the geoscience, the following topics and issues would warrant incisive discussion: whether, in what ways and for whom the Anthropocene constitutes a 'crisis' (triggering fear and grief); why many people will remain highly sceptical about Anthropocene science, even if the Anthropocene concept becomes widely embedded in public discourse; the rival accounts of what has caused the end of the Holocene, leading some to reject the suitability of the Anthropocene label; the spectrum of major normative implications of the Anthropocene's onset, from anthropocentric notions of human rights and entitlements to more eco- and biocentric ideas about non-human justice; the related question of how various forms of utopian, hopeful thinking might help us rethink the past and present, and act accordingly; the efficacy and limitations of economic instruments as a means to 'green' human activities in a tightly integrated capitalist world where wealth is defined in very particular ways and is unevenly distributed; the potential of existing and emerging ideas in the law to bind nations into a new planetary dispensation so as to operationalise certain ethical beliefs; the related issue of effective new or future-possible transnational governance organisations and instruments, in a world of geopolitical, economic and cultural difference and not infrequent tension; the forms of political authority and rule that might be needed to push through major socio-ecological changes, such as the planned retreat of many cities from coastlines; the question of technologies that, in more or less risky ways, might regulate Earth conditions to keep the planet liveable; the role of futuring techniques in guiding present-day decisions about human activity, notably prediction and formal scenario-building plus, in a less scientific-analytical register, imaginative works of fiction (written, spoken, aural and visual); and different versions of the 'good life' and how, either via reform or revolution, we might redefine existing notions of 'progress'.

Something along these lines would offer readers a clearer sense of what animates the scene, giving them a perspective on how Anthropocene realities could, should and (in some cases) should *not* unfold. It would surely help readers too if we acknowledge candidly the pervasive effects of neoliberalism in many parts of the world, not just as a set of economic policies but as a hegemonic mindset about self, other and world. As Naomi Klein noted in *This Changes Everything* (Klein, 2014), neoliberal political economy and governmentality are ill-suited to an age where massive acts of inter-governmental cooperation are required to tackle a 'wicked problem' like anthropogenic climate change. The resurgence of various ethno-nationalisms and militant theisms is also distinctly unhelpful. Humans have entered the Anthropocene, it seems, during a very inauspicious moment in our history, one when

‘we’ (a far from homogenous 8 billion) may be unable to act in concert at appropriate temporal and geographical scales.

In the end, the Anthropocene imposes a stupendous burden of understanding, judgement and practical action. It will be an epoch of endless change to almost everything, presenting us with – to put it politely – the ultimate collective action problem for ourselves and our descendants. Epic, elemental questions now arise, such as ‘what should an economy be for?’, ‘what now is the content and limits of ‘the political’?’, and ‘do we need a world government?’.² The size and complexity of the ‘scene’ is testament to this and will only become larger and more labyrinthine as the years go by. I’m doubtful that many people will have the fortitude to ‘stay with the trouble’ (Haraway, 2016) and shoulder the burden rather than stick their head in the sand or simplify complexities in favour of tidy (non-) solutions. *Altered Earth* offers one ‘cut’ into the scene and thereby represents the Anthropocene in particular ways. As I’ve suggested, it may not get things as ‘right’ as the editor is wont to claim. Those seeking an effective introduction to the Anthropocene – its nature, its causes and its implications – may need to look elsewhere, even as several of the chapters of *Altered Earth* offer clear insights into parts of the wider scene. However, in my view we currently still lack a book that has suitably parsed that scene. I hope that someone writes it soon, allowing us to grasp the true scope and enormity of the Anthropocene challenge. Better we fail based on a solid grasp of the issues than blunder half-blind into a future world we could have made more hospitable with foresight and some prudent action.

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²Bruno Latour, in his hugely inventive studies of the modern world, has sought to answer these fundamental questions since his book *We Have Never Been Modern* (1995). His published work is, though, voluminous and often very difficult to understand, requiring skilful interpretation to make it intelligible to various potential addressees. Latour’s writings illustrate just why we need careful renderings of ‘the scene’ for those unable or unwilling to listen to the many voices who speak – in more and less accessible ways – about the future of the Earth.

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