

Christoph Antweiler: *Anthropologie im Anthropozän. Theoriebausteine für das 21. Jahrhundert*. Darmstadt: Wissenschaftliche Buchgesellschaft 2022. 653 pp. 14 illustrations, 17 tables, glossary, register, index

Daniel Grana-Behrens

With this volume, Christoph Antweiler has published a comprehensive work on the Anthropocene, which he describes as a geo-historical phase starting in the middle of the twentieth century with regard to its future significance for anthropology. The ‘theory-building blocks for the twenty-first century’ mentioned in the subtitle, offer an outlook for the future. According to geological chronology, humans have been living in the Holocene and the period of the ‘climate-stable section’ of the Quaternary for just under 12,000 years, as is made clear in the Preface. Only more recently have human activities reached such a scale that they are now reflected geologically, marking the beginning of the Anthropocene. To this end, Antweiler, until recently Professor of Southeast Asian Studies at the University of Bonn, who has studied geology as well as ethnology, sends his readers into the subsequent period of the Quintary with the help of a fictitious geologist to whom he gives the name ‘Amy’. This brings us to the epoch of the Post-Anthropocene, beyond the year 2100, when the researcher not only discovers the ‘guide fossils’, such as concrete or plastic, that mark the Anthropocene, but also wonders, based on the mainly digital records available to her from that time, that quite a few geologists and palaeontologists were formerly opposed to the inclusion of the Anthropocene as a separate concept in stratigraphy (10–11).

The Anthropocene, it should already be clear, does not appear as a unified and coherent concept. For this reason, the helpful glossary (515–529) refers to four different terms or understandings of the Anthropocene: earth science; geology; the history of earth science; and humanities, culture, and the social sciences. These terms describing the Anthropocene are by no means to be equated simply with earth-historical traces, as different preferred understandings exist depending on the discipline. The earth sciences have understood the Anthropocene as a ‘caesura in the status of the earth system’ since the mid-twentieth century. Similarly geology has stood for the ‘sum of events’ during the same period. The combination of these disciplines with archaeology and history counts as the ‘sum of all empirically

demonstrable human influences'. As for the humanities and cultural and social sciences, they appear as a 'rupture caused by human-induced environmental change' (516–517, original emphasis; all translations D.G.-B.). These various considerations are found scattered throughout the book. The author himself pursues an 'Anthropocene thesis' that there is 'geologically [an] abrupt change of period from humans acting only as the agents of local or regional environmental change to their role as principal agents of geophysical change' (38, original emphasis). This 'earth-historical phase of human dominance', however, does not begin until after the Industrial Revolution in the mid-twentieth century and therefore cannot become fully visible in geoscientific terms until the Post-Anthropocene, as the fictitious geologist Amy makes clear (24).

Michel Serres' (2015) critique of the Anthropocene, which Antweiler does not take up in his book, despite countless and helpful cross-references in the most diverse disciplinary directions – first and foremost anthropology, archaeology, geology, geophysics, palaeontology, philosophy, politics and sociology –, brands environmental pollution (material, technical, industrial) as 'cultural pollution' and calls for a new 'natural contract' (*contrat naturel*) of the 'guardians of earth, people, and things' (Serres 2015:57, original emphasis). Thought of as a 'revision of culture' (Serres 2015:59), here, just like the ontological turn in social and cultural anthropology (Holbraad and Pedersen 2017), decolonization and posthumanism are more central than they are for Antweiler. In contrast to many other theories of the Anthropocene, such as McKenzie Wark's "Molecular red" (2016), which sees the discovery of the Anthropocene in the world of work as a driving force for political as well as economic world orders (capitalism, socialism), Antweiler's focus is all human domains, including their respective worlds of thought, of which geologists in the Quintary beyond the year 2100 might then be able to make comprehensive findings.

Moreover, the great, recently deceased posthumanist Bruno Latour (2013) had sent anthropology, or one of its experts, especially into the future to describe how humans and non-humans live together due to the modes of existence (*mode d'existence*) named in his book. In contrast to Latour, who, as the corresponding book's subtitle reads, ontologically ties his anthropology of modernity to the social interactions of humans and non-humans, Antweiler does include the social via anthropology, but argues primarily

in geo-historical terms. He is concerned with what anthropology<sup>1</sup> needs in terms of theory-building blocks in order to make the man-made changes to the biosphere and geosphere – the Anthropocene – recognizable (55–72). For him, the focus is less on the effects acknowledged today, such as climate change, the scarcity of resources, or the loss of species, but on the distinctive traces that have shaped the Anthropocene. Besides plastic and concrete, these include, to name but a few, radioactive substances and asphalt. As rock layers and sediments, they mark the turning point in the history of a future earth, as revealed to Amy. From such finds and findings, what in the classical archaeological sense is to be found everywhere, namely human traces limited to cultural-historical contexts, is thus to be separated. The author thus clarifies above all else the global-historical dimension of the Anthropocene (15–17, Table 1).

In contrast to previous findings, such as those in anthropology or ethnology, man as an ‘earth system-relevant quantity’ is therefore to be classified as an ‘anomaly’ (20). The central train of thought here is the idea of unlimited growth, economically and politically desired as well as moderated by technology and science, but also criticized by the latter in a process of self-reflection or introspection. Despite this circumstance, the author relies on the hopeful message that the effects remain controllable. Therefore, in place of an ‘uncontrolled Anthropocene’, a ‘moderated Anthropocene’ is suggested (19). This approach, favoured by Antweiler, also comes closest to the Anthropocene conception of geology mentioned previously. With it he connects three interdisciplinary oriented basic questions. Firstly, how must the role of humanity be understood here? Secondly, what does this mean for the orientation of anthropology as a broadly conceived human science. Thirdly, to what extent does knowledge of humans and cultures enable alternatives for uninhabited geospheres (29)?

In this respect, Antweiler takes a different, less phenomenological path than Latour, Serres, or the ontological turn. His critical engagement with the Anthropocene takes the form of the *longue durée* that is familiar to historians and, to some extent, social and cultural anthropologists, as Fernand Braudel (1949, 1958) described it. Braudel’s focus was empires over long periods of time beyond the lives of individual persons, whereby entire regions with their structures and ways of life were transformed. However, in contrast to Braudel, for geologists like for Antweiler everything exists in ‘deep time’ (42,

---

<sup>1</sup> He uses the term ‘ethnology’ in parallel, but not the term ‘social and cultural anthropology’, used in Germany today.

51, 56). This raises questions such as ‘Who thinks deep time or controls deep time processes?’ or ‘Who establishes the boundaries between time registers culturally?’ Such questions are anything but apolitical for Antweiler (428). Seen in this light, his book is a cultural answer to a political question: What is the Anthropocene? His answer is that it involves acknowledging that the ‘parallel between human-made climate change and the Anthropocene [...] is also responsible for the enormous rift between the realization of the urgency of globally coordinated action and [...] the lack of or ineffective action’ (43).

For this very reason, the book treats the Anthropocene ‘on the one hand as a cause and on the other as the first major and global discourse of the twenty-first century’ (28). This is therefore the view of a natural science discipline and the discourse that was initiated by Latour, Serres and the ontological turn, as well as by the Anthropocene Working Group (AWC) in geology (49). The latter is an association of scientists composed of various countries that examines suggestions for dating the Anthropocene. Like Antweiler, it places the crucial beginning of this period around the middle of the twentieth century (49).

Antweiler’s effort to place the Anthropocene more culturally in terms of geological history and to involve anthropology as well as archaeology, pre-history and early history (57) is therefore also a response to the fact that until now nature was thought of as geological history without humans. Now, he argues, it is becoming geological history with humans, taking into account all human processes, including culture. From a common scientific perspective, the view has so far been that ‘the earth made us’ (Dartnell 2019) and not vice versa. Antweiler’s main motive is thus to move the positions of geology, the humanities and cultural studies toward each other, including their temporal locations (27). This leads to a trans- and interdisciplinarity that is still rather utopian than lived practice in today’s science, but without which it will be impossible to explore the Anthropocene as a concept in the future (32, 57).

Antweiler’s answer to the Anthropocene is his anthropological ‘theory-building blocks’, i.e., the connection between ‘natural and human history’, since humans

cannot [will not] wait for their biological adaptation because it is too slow. We must manage them through cultural change. *A Big History* perspective can thus contribute both to a less anthropocentric and a more human-centric classification of humans (60, original italics).

‘Anthropology in the Anthropocene’, the approach taken here, involves the ‘anthropologization of geology’ (26). Thus, Antweiler’s anthropology in the Anthropocene is also a counter-proposal to the position of posthumanism, which in its moderate form, as in Latour or Serres or the ontological turn, conceptualizes a flat ontology, i.e., the valorisation of everything non-human in relation to what is human in every kind of practice (cultural, economic, political) as recently also suggested by Timothy Morton (2017) (31). His stance, however, is first and foremost a counter-proposal to absolute posthumanism, which aims at the complete overcoming of the human as the only solution, i.e., in forms of such kinds as humanoid robots or artificial intelligence in machine form, or the creation of new beings through biotechnology (Horn and Bergthaller 2019, Loh 2018, Renn 2020). This also includes less radical approaches such as transhumanism, which merely focus on the technological perfection of humans as cyborgs or as *Homo deus* (Harari 2017, Haraway 1991).

Chapter 1, which outlines the initial situation, is followed by six more chapters. Chapters 2, 3, and 4 refer to the current Anthropocene discourse with respect to the first three Anthropocene terms in the glossary, i.e. earth science, geology and the history of earth science. Chapter 5 (“Anthropocene anthropology: opportunities and contributions”) might initially attract the attention of social and cultural anthropologists, but the seminal theory-building blocks are found in Chapters 6 (“*Conditio humana*: geologization of culture”) and 7 (“Human niche construction: building blocks for a synthesis”), respectively.

Chapter 5 evaluates and critiques anthropology’s current stance on the Anthropocene. In Antweiler’s view the discipline, despite its turn to the environment (301–302, Table 10), to Latour’s symmetrical anthropology, and more generally to the ontological turn and posthumanism, still lacks connection and integration with the natural sciences such as the earth sciences (36, 273, 284–288, 305–305, Table 12, 313, 329–351, 356–358). According to Antweiler, the importance of anthropology or ethnology to a broader concept of the Anthropocene is due to the fact that it does ‘research on the earth system’ (nature) as well as ‘big history research’ (culture) (307). People’s experiences are therefore lifeworld ruptures and ‘crises of reproduction’ as far as the Anthropocene is concerned (311). This also addresses the ‘unresolved fundamental question’ of how ‘cooperation and coordination of small units’ (localism) is possible in relation to the Anthropocene, which ‘concerns all humanity’ (327). Moreover, Antweiler claims that in anthropology, ‘there is

no concept that captures or elucidates individual and collective knowledge, perception, and experience of the natural environment', or decides which of these are universals (353–354).

Chapter 6 deals with the 'constitutive boundary between nature and culture' alluded to here above – 'pristine nature' (388), that, according to Dartnell, has always characterized humans up to date. For it is only in the Anthropocene that humans have become 'geomorphic actors' for the first time. Thus, materialism, physicalism and naturalism must be rethought as well insofar as culture can no longer be reduced to 'specific materialities' alone (391–393). As a holistic concept, culture could therefore also continue to make a productive contribution to the Anthropocene, instead of only arriving at an 'unclear monism' in the sense of overcoming the separation of nature and culture, which is also called for by the ontological turn, as post-humanism also considers it (509). Thereby, however, the redefinition of the *condito humana* or culture as forming the 'possibility of a new science' is in the room, connected with a different politics, as Latour, Serres, the ontological turn or posthumanism also demand (395). But in contrast to these and the general anti-humanism of social and cultural anthropology, Antweiler postulates a moderate or 'middle' neo-humanism as a solution, which focuses on the responsibility that humans and science have in the Anthropocene (397–398).

Chapter 7, which summarizes the book yet again, relies on the notion of (human) niche construction as a leitmotif for a synthesis of the building blocks as they should shape anthropology in relation to the Anthropocene in Antweiler's view. This refers to the idea of evolutionary ecology, according to which environmental changes are handed over to the next generation as a new foundation, so that one should speak of a triple entanglement of genetic heritage, cultural heritage, and now also geospheric heritage, or, as Antweiler makes clear, naming it in striking fashion in a diagram: 'culture crosses classes of material substance' (455, figure 5; 463–472, figures 8–9). This new traversal of agency, including all materiality, inheritance (transmission), and spatial spread (diffusion) (455–458, Table 16), points to how materiality is rethought, how materiality and culture are mutually dependent, and how 'cumulative culture' therefore includes adaptation and an increase in complexity (459). Thus, the cogs that interlock in the Anthropocene in the form of the threefold heritage are by no means any more local in character. However, this results in the Anthropocene's common task of bringing about 'global cooperation and worldwide coordination' (476). For Antweiler, there-

fore, the idea of cosmopolitanism or ‘cosmopolitan traditions of thought’, stating that ‘all people belong to one world’, counts (477–478). The idea of pluriverses and multiple ontologies, as suggested by the ontological turn or posthumanism, would thus have to be reconsidered yet again. In this respect, the Anthropocene not only represents a crisis, as Latour, Serres or the ontological turn and posthumanism generally diagnose it in order to call for a radical cut in response. In the sense of an idealized monism, this cut leads to a nature, as viewed by indigenous groups or societies. In contrast, Antweiler sketches what he sees as a more positive picture: combining trans- and interdisciplinarity on the one hand and human creativity on the other across all groups and societies to address the Anthropocene as a practical problem, so that anthropology or ethnology now confronts ‘planetary development’ (497). To this end, he believes that all future theory-building blocks of anthropology should be discussed and elaborated.

In summary, Antweiler’s book can be recommended to all those social and cultural anthropologists who, from various directions such as the ontological turn, as well as from ecological anthropology, feel responsible for the long-term effects of human actions. Here the book offers extensive insights into different disciplinary branches such as anthropology, archaeology, geology, geophysics, palaeontology, philosophy, politics and sociology. With the help of the glossary and the equally very good index, it is thus possible to follow many recent nuances, as well as related problems, as they challenge the sciences. Ultimately, therefore, it is also a political book about the question how mankind should deal with its own creative power in the future, as it no longer concerns only history and culture but also the earth itself.

#### REFERENCES

- BRAUDEL, Fernand  
 1949 *La Méditerranée et le monde Méditerranéen à l’époque de Philippe II*. Paris: Editorial Armand Colin  
 1958 „Histoire et Sciences sociales: La longue durée“, *Annales* 13(4):725–753
- DARTNELL, Lewis  
 2019 *Origins: how the earth shaped human history*. London: Vintage

HARARI, Yuval Noah

2017 *Homo Deus: a brief history of tomorrow*. London: Random House

HARAWAY, Donna

1991 *Simians, cyborg, and women: the reinvention of nature*. New York: Routledge

HOLBRAAD, Martin and Morten Axel PEDERSEN

2017 *The ontological turn: an anthropological exposition*. Cambridge, UK: Cambridge University Press

HORN, Eva and Hannes BERGTHALLER

2019 *Anthropozän*. Zur Einführung. Hamburg: Junius

LATOUR, Bruno

2013 *An inquiry into modes of existence: an anthropology of the moderns*. Cambridge, Mass. and London: Harvard University Press (Existenzweisen. Eine Anthropologie der Modernen. Berlin: Suhrkamp 2014)

LOH, Janina

2018 *Trans- und Posthumanismus*. Zur Einführung. Hamburg: Junius

MORTON, Timothy

2017 *Humankind: solidarity with nonhuman people*. London and New York: Verso

RENN, Jürgen

2020 *The evolution of knowledge: rethinking science for the Anthropocene*. Princeton and Oxford: Princeton University Press

SERRES, Michel

2015 *Der Naturvertrag*. Frankfurt am Main: Suhrkamp (1990)

WARK, McKenzie

2016 *Molecular red: theory for the Anthropocene*. London and New York: Verso