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Anthropocene

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‘The Anthropocene’ is a term that is increasingly used to define a new planetary epoch: one in which humans have become the dominant force shaping Earth’s bio-geophysical composition and processes. Although it originated in the Earth Sciences, it has since been widely adopted across academia and the public sphere as a catch-all description for the overwhelming impact of human activity on the planet. This entry examines how anthropologists have engaged with the Anthropocene, both as a set of phenomena (e.g. climate change, mass extinction) and as a politically and morally loaded concept. It identifies four main anthropological approaches to the Anthropocene, those that: 1) take the Anthropocene as a context for or backdrop to ethnographic inquiry; 2) interrogate ‘the Anthropocene’ as a socially and politically constructed idea; 3) treat the Anthropocene as an opportunity for creativity and hopeful speculation; and 4) view the Anthropocene as the outcome of long-standing global political and socio-economic inequalities. Such approaches entail distinct methods, analytical frameworks, concepts, and ethico-political programmes. Collectively, they form a large and still-evolving body of work that destabilises divisions between ‘nature’ and ‘culture’ and ‘humans’ and ‘non-humans’, as well as the scholarly disciplines traditionally built around them. In this capacity, they are also pushing anthropologists to ask what distinctive methodological, analytical, and ethico-political contributions their discipline can make to the burgeoning interdisciplinary field of Anthropocene studies.

Introduction

‘The Anthropocene’ is a term that is increasingly used to define a new planetary era: one in which humans have become the dominant force shaping Earth’s bio-geophysical composition and processes. Initially emerging in the Earth Sciences as the name for a proposed new geological epoch[1] (Crutzen & Stoermer 2000), the Anthropocene has been widely adopted across academia as a catch-all description of the overwhelming impact of human activity on the planet. Its key markers include climate change and its consequences (e.g. sea level rise), the effects of plastic pollution on marine and terrestrial processes, unprecedented rates of biodiversity loss and extinction, and the changing chemical composition of soils, oceans, and the atmosphere.

Academic interest in the Anthropocene has been paralleled by a growing awareness of its existence in the public sphere. For example, the United Nations Educational, Scientific and Cultural Organization (UNESCO) dedicated an entire journal issue to the Anthropocene (UNESCO 2018), while many of the United Nations Development Programme’s (UNDP) Sustainable Development Goals (2016-present) are built around key Anthropocenic concerns, such as global emissions, ecosystem damage, and overreliance on fossil fuels. At the same time, productions such as Edward Burtynsky’s film *Anthropocene: the human*

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epoch (2018) are drawing public attention to both the term and the challenges that it poses in the contemporary world. The Anthropocene has thus become a 'charismatic mega-concept' (Turpin & Davis 2015: 6) that bridges the natural and the social sciences, and academia and the public realm, igniting heated debates across all of them.

This entry provides a short and necessarily partial account of anthropological engagements with the Anthropocene—an immense, burgeoning, and still-embryonic field of study (Gibson & Venkateswar 2015; Swanson, Bubandt & Tsing 2015). After briefly considering what the Anthropocene is, we shall examine four key anthropological approaches to it: those that a) put ethnography to work in spaces most directly affected by Anthropocenic phenomena; b) critically interrogate the idea of the Anthropocene: its discourses, truth-claims, politics, and ethical injunctions; c) take the Anthropocene as an opportunity for speculation, creativity, and hopeful regeneration; and d) treat the Anthropocene as a political and socio-economic problem and symptom of global inequalities and injustices.

These approaches are characterised by distinct methods, analytical frameworks, conceptual vocabularies, and ethico-political agendas. However, they also share certain key traits. First, they point to how the Anthropocene destabilises dichotomies between 'nature' and 'culture' and 'human' and 'non-human', as well as the academic disciplines built around them. At a time when microplastics have infiltrated marine food chains and 'natural disasters' like floods and coastal erosion are precipitated by human-induced climate change, such dichotomies have become increasingly hard to maintain. Many anthropologists have responded to this problem by transcending their *own* disciplinary boundaries, and engaging with methods and frameworks from other disciplines, such as biology and art.

Secondly, none of these approaches can be said to be agnostic about their subject matter. Rather, they exemplify what has become an increasingly pervasive tendency in this field: the imbrication of the analytical with the political and the ethical. More than analyzing the Anthropocene, anthropologists are increasingly asking what can and should be done in response to the threats and opportunities that it poses. Their agendas and interventions, however, vary significantly—as do the demands that they make on themselves. The upshot of all this, thirdly, is that anthropologists are increasingly pushed to ask what exactly their discipline can bring to the evolving 'Anthropo-scene', i.e. the intellectual field that has emerged around the concept (Lorimer 2017), and vice-versa. This entry suggests that classic anthropological methods, such as small-scale participant-observation and the critical juxtaposition of 'strange' and 'familiar' insights, are well suited to adding empirical depth and nuance to this multidisciplinary field. Yet the same time, it is also becoming clear that engagements with the Anthropocene are reshaping anthropological practices and imaginaries, with profound ethical and political implications.

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What is the Anthropocene?

Since the early-2000s, the Anthropocene has received increasing scientific attention as a proposed new geological epoch: one dominated by the impact of human activity on planetary systems. These impacts include anthropogenic climate change, biodiversity loss leading to mass extinction, and the ubiquity of microplastics in terrestrial and marine ecosystems. Proposed bio-geophysical evidence for these and other features of the Anthropocene includes increasing global average temperatures and carbon dioxide concentrations, rising sea levels and ocean acidification (Zalasiewicz *et al.* 2008; Lewis & Maslin 2015). On the basis of such evidence, in 2016 the Anthropocene Working Group of the International Commission on Stratigraphy (founded in 2009) provisionally recommended that the Anthropocene be formally recognised as a distinct unit of geological time (Zalasiewicz *et al.* 2017). However, debates continue regarding its starting point.

Events as early as the extinction of mammoths through human predation 13,800 years ago (Doughty *et al.* 2010) and forest clearances and rice cultivation 5,000-8,000 years ago (Ruddiman 2003) have been proposed as boundary points that mark the start of the Anthropocene. While Paul Crutzen and other members of the working group previously endorsed the Industrial Revolution and the development of the steam engine as the Anthropocene's origin (Crutzen 2002; Zalasiewicz *et al.* 2008), the working group's members now largely favour the 'Great Acceleration' (Zalasiewicz *et al.* 2015)—the period of extensive technological, demographic, economic, and resource use expansion from 1945 onward—as the origin point. Members of the working group contend that the Great Acceleration represents a global synchronous phenomenon (a key criterion for selecting a stratigraphic marker), compared to earlier suggestions, which they argue were merely regional or did not occur simultaneously across the world.

Alternatively, Simon Lewis and Mark Maslin (2015) have proposed 1610 as a starting date, due to the profound alterations to ecosystems produced by the Colombian Exchange[2] as well as the dip in CO2 concentrations most likely caused by reforestation in the Americas, due to the enormous loss of Indigenous life. As well as identifying an event they deem stratigraphically significant, Lewis and Maslin therefore foreground colonial violence as a foundation of the Anthropocene. This position is endorsed by feminist scholars Heather Davis and Zoe Todd (2017), who contend that selecting this starting date would create space for Indigenous thought within the Anthropocene debate.

Decisions regarding the formal boundaries of the Anthropocene have political and socio-economic repercussions. Depending on the starting date that is chosen, particular processes will come to be held responsible for our current planetary predicament. This will suggest certain avenues for action, and foreclose others. For instance, selecting the Industrial Revolution as a start-date suggests that capitalism as a socio-economic system is primarily culpable for the Anthropocene, whereas 1610 foregrounds colonialism and the historic and ongoing exploitation of the majority world,[3] suggesting that former

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imperial nations have a particular responsibility to mitigate Anthropocenic problems. These debates reflect how the Anthropocene is not simply a natural scientific phenomenon, but a methodological, conceptual, and ethico-political challenge for scholars across a range of disciplines. The following sections examine how anthropologists have both approached and intervened in these debates.

The Anthropocene as context

While the Anthropocene encompasses many different processes, anthropogenic climate change is often treated as its main 'yardstick' due to the scale and ubiquity of its impacts (Rudiak-Gould 2015: 48). Ethnographic research into the effects of, responses to, and understandings of climate change constitute some of the earliest anthropological engagements with the Anthropocene. These approaches draw upon anthropology's traditional strengths of rich qualitative research in small scale societies, focusing particularly on regions mostly critically threatened by climate change impacts, such as low-lying small island states. Such ethnographic research provides insights into how Anthropocenic phenomena are apprehended, experienced, and conceptualised in specific settings. In this way, they point to the heterogeneous nature of the Anthropocene, and the need to examine its social and cultural dimensions, rather than approaching it as a purely natural scientific concern.

Anthropologists have commonly tried to understand how climate change is experienced in particular local settings (Crate & Nuttall 2009). In these studies, the Anthropocene is treated as a backdrop to social life or a key factor shaping social relations, rather than as a purely geophysical phenomenon. For example, Heather Lazrus (2009) documents how, in Nanumea, Tuvalu, the tips of islands, which are associated with particular family lineages and corresponding levels of community prestige, are shifting due to coastal erosion, potentially causing changes in familial status and social hierarchies. Susan Crate and Mark Nuttall argue that climate change is 'ultimately about culture' (2009: 12) as it has emerged from a culture of mass consumerism, requires cultural change to mitigate it, and threatens Indigenous cultural practices by disrupting cosmologically significant human-environment relations. This emphasis on culture chimes with the work of geographer Mike Hulme (2008), who contends that climate change discourse is dominated by natural scientific frameworks, and consequently has been stripped of cultural context (see also Malm & Hornborg 2014). Instead, he argues both that the climate must be understood culturally, and that climate change must be locally situated and rendered culturally and ethically meaningful for those that it impacts. Thus, culture can be understood as both a cause of climate change, integral to understanding it, and a means of influencing responses to it. This latter process has been explored in relation to Christian responses to climate change, with ethnographies analyzing the use of Biblical stories in challenging the hegemony of predictions of sea level rise in Kiribati (Kempf 2017) and advocating for greater preparedness in the face of intensifying cyclones in Vanuatu (Fair 2018).

Many researchers advocate bringing Indigenous knowledge of climate change into dialogue with scientific

knowledge, for example by drawing on Athapaskan and Tlingit oral histories of glacial travel in the Gulf of Alaska (Cruikshank 2001), or organising community knowledge exchanges that bring together ethnographic accounts and scientific data regarding changes to the permafrost in northeastern Siberia (Crate & Fedorov 2013). This approach, however, raises more fundamental questions about the distinction between local and scientific knowledge. There have been calls to recognise how scientific knowledge of climate change is shaped by specific local and cultural conditions, rather than accepting it as a 'view from nowhere' (Hulme 2008), as well as recognising that local knowledge itself is not isolated, static, or sealed off from scientific discourse. In this vein, anthropologists have explored how scientific knowledge is received, interpreted,and incorporated within specific local cultural settings. For example, Jerry Jacka (2009) shows how the impacts of El Niño in the Porgera Valley in Papua New Guinea have been accommodated within Christian narratives of punishment and apocalypse and understood as revenge for the destruction of significant ritual sites through road building. These local understandings can render problematic the anthropogenic dimension of climate change. While they concur regarding the human responsibility for global warming, they do not agree which specific human actions have caused it.

Peter Rudiak-Gould's (2012) work in the Marshall Islands also highlights how scientific understandings are combined with local understandings and used to bolster existing moral frameworks, a process he describes as 'promiscuous corroboration'. He identifies a prevalent Marshallese understanding of climate change as symptomatic of wider, pre-existing cultural decline, due to increasing American influences and the loss of traditional knowledges, lifestyles,and practices. Similar understandings have been identified in the Pacific Island nation of Vanuatu (Fair 2018) where climate change impacts, including the intensification of cyclones, have been attributed to deviations from both Christian morality and *kastom* (traditional knowledge, beliefs, and practices). Climate change as rendered intelligible through these existing ethical frameworks therefore also lead Islanders to hold themselves morally culpable for Anthropocenic impacts, in distinction to their nation's minimal contributions to carbon dioxide emissions.

Rudiak-Gould's work reveals some of the tensions that can emerge between research and political advocacy. He argues that while most anthropologists subscribe to a narrative of climate change blame focused upon the responsibilities of industrialised nations, researchers should be open and alert to alternative narratives, even those that challenge their own politico-ethical standpoints. While the Marshallese narrative of Islander responsibility is at odds with conventional framings of small island states as victims of climate injustice, it is also empowering on a local level, as 'innocence implies impotence' (Rudiak-Gould 2015: 58).

This raises a broader question: what political and ethical demands does the Anthropocene make of social scientists? Crate and Nuttall (2009) argue that anthropologists have a privileged point of engagement: many are already working with communities who are experiencing the severest impacts of climate change while being some of the least responsible for those impacts. Consequently, some researchers have focused

their energies not just on analysis but advocacy, engaging with legislation and policy (Fiske 2009), setting up university sustainability initiatives (Bartlett & Stewart 2009), and participating in climate justice movements (Chatterton *et al.* 2012). Their efforts exemplify a form of engaged research that seeks to alleviate, or at least highlight, the deleterious effects of the Anthropocene.

Studying 'the Anthropocene' as a concept

Much of the work cited above is situated *in* the Anthropocene, which serves as an encompassing, real-life backdrop to ethnographic inquiry. However, there is also a growing body of scholarship that advocates a critical understanding *of* the Anthropocene as an idea (Moore 2015: 28). Drawing partly on critical traditions such as science studies and post-structuralism, these writings examine how Anthropocenic knowledge practices and truth-claims are constructed, circulated, contested, and strategically deployed—as well as how these can bring new realities and relations into being.

This approach is marked by a commitment to rendering the familiar strange by showing how apparently clear-cut Anthropocenic 'facts', such as 'climate change', 'carbon emissions', and 'biodiversity loss', are inherently partial and dynamic constructs. Rather than assuming their veracity, anthropologists ask: how are such concepts defined, made visible or knowable, and formalised, and to what effect? In recent years, for example, scholars have examined how the Anthropocene is made 'imaginable and comprehensible' (Marzec 2014: 249) through specific technologies, including narratives, photography (Kember 2017), infographics (Houser 2014), and environmental visualizations (Carruth & Marzec 2014). Another fecund area of inquiry is that of climate science, with anthropologists examining the scalar, spatial, temporal, and speculative dimensions of climate modelling (Hastrup & Skrydstrup 2013), the universalization of carbon as a metric through which to quantify (and thus compare) a vast array of human activity (Günel 2016), and the impact of ideals of accountability (Hall & Sanders 2015) and expertise (Vaughn 2017) on climate science research. Their insights into the all-too-human production of scientific knowledge are exemplified by Jessica O'Reilly's discussion of Antarctic research (2016), which reveals how scientific data about the shifting Antarctic landscape is indelibly shaped by scientists' intimate, sensory engagements with the ice, national research logistics and nationalism, guesswork, and, often, pure chance.

By treating scientific practices and categories as objects of ethnographic scrutiny, such scholars highlight the vital point that

> [k]nowledges do not float free from their contexts of production, and cannot arrive any old way. They travel well-worn paths, and are preconditioned by other academic knowledges, knowledge-producing apparatuses, and institutional arrangements (Hall & Sanders 2015: 454).

These approaches thus reveal how seemingly 'factual' Anthropocenic discourses, categories, and epistemologies are in fact malleable, fragile, and socio-historically specific (see, e.g., Last 2015). Moreover,

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the truth-claims that they generate are often tied up with profoundly moral ideas that evoke specific ways of thinking and feeling. Some of these, such as paintings of scenes from the Industrial Revolution, romanticise and naturalise the very conditions of human dominance over nature that fuelled the Anthropocene (Mirzoeff 2016). Others, notably public discourses about climate change, are apocalyptic (Swyngedouw 2010), depicting the Anthropocene as a threat to humankind's very survival.

More than making the Anthropocene knowable, such ideas and imaginaries can have powerful social, political, and material effects in multiple settings. Narratives of low-lying island states being imminently engulfed by rising sea levels, for example, can disempower affected communities and inhibit effective mitigative action by representing Islanders as helpless victims and their homelands as inevitably lost (Farbotko 2010). Rather than reflecting an inherent vulnerability to climate change, these discourses can actually encourage people in affected areas to produce and perform their vulnerability in order to receive development funding (Webber 2013), and in doing so divert resources from other areas. Other studies show how discourses of climate change vulnerability have been mobilised in order to reinforce existing stereotypes of certain places and groups of people as vulnerable, hazardous, and disadvantaged (Yamane 2009).

It is here that anthropologists are well-placed to intervene in ongoing conversations by producing detailed ethnographic accounts of the

> events animated by the Anthropocene idea, from emergent political alliances and spatializations to modes of subjectivity and citizenship, from forms of scientific objectification and naturalization to shifting research methods and narratives, from green markets, products, and flows of capital to the materialization and embodiment of these ideas in spaces, places, bodies, and earthly relations (Moore 2015: 40).

Through such accounts, Amelia Moore suggests, anthropologists can begin to treat 'the Anthropocene *idea* as a problem space' (2015: 41; italics in original) that needs to be explored rather than taken for granted.

Moore's work on the growth of sustainability, conservation, and eco-tourist initiatives in the Bahamas (e.g. Moore 2015) exemplifies the value of such an approach. Taking the Bahamas as one particular 'Anthropocene space' (2015: 31), she traces how rising sea levels, notions of sustainability, and concerns about biodiversity loss have collectively reframed and literally reworked the islands' ecological, spatial, and socio-economic makeup—for example, through the promotion of sustainable fisheries, the establishment of new marine protected areas, and the growth of ecotourism initiatives. In her work, the Anthropocene is not simply a backdrop to ethnographic inquiry, but a material and imaginative space that constantly generates new relations and effects.

Similar approaches can be found in Jason Cons' (2018) ethnography of the pre-emptive restructuring of Bangladeshi borderlands in the name of climate security; Cymene Howe's discussion of multiple claims to 'anthropocentric ecoauthority' in the context of wind power development in Mexico (2014); and Nayanika Mathur's description of the political work performed by Anthropocenic categories like 'climate change' in the context of human-wildlife conflicts in the Indian Himalayas (2015). Rather than asking how anthropology can illuminate small-scale responses to the Anthropocene, these writings push us to interrogate the very *idea* of the Anthropocene, the truth-claims and the ethical demands that it makes, and the effects of such claims and demands in multiple settings. By adopting this critical perspective, they imply, anthropologists can not only challenge the deleterious effects of oversimplified concepts such as 'anthropogenic' or 'climate change', but can also begin to explore 'alternative visions' (Cons 2018: 286) and possibilities for life in the Anthropocene. On this point, their work converges with that of another form of scholarship, to which speculation and creativity are central.

Remaking the Anthropocene: speculation, creativity, and experimentation

Rather than critically unpack the 'Anthropocene' idea, other scholars have opted to play with the speculative and regenerative possibilities that it presents. While not uncritical of its horrors and injustices, their writings approach the Anthropocene as an opportunity: as a still-emergent entity to be appropriated, recast, and even redone (Buck 2015: 372).

This diverse body of work is often animated by a shared concern with unsettling, reworking, and transcending dominant scholarly categories such as 'nature', 'culture', 'human', and 'nonhuman'. Although social scientists have long questioned these categories' universality, the Anthropocene has thrown their contingency into starker relief: if 'human agency has become the main geological force shaping the face of the earth' (Latour 2014), how, then, can we tell what is 'natural' and 'cultural', 'human' and 'nonhuman'? By thrusting this vital question into the public spotlight, the Anthropocene has, as Bruno Latour puts it, been a gift to contemporary scholarship—an invitation to 'renegotiate the shape, boundary, limit and extent' of anthropology's core concern, 'humanity' (2014), and much more besides.

A common response to this invitation is to embrace rather than abhor the Anthropocene's human-nonhuman hybrid 'monsters' (Latour 2011; Swanson *et al.* 2017: M4), from bacteria that have evolved to resist human-synthesised drugs to 'blasted landscapes', such as sites of oil spills, that are simultaneously 'natural' and 'social' (Kirksey, Shapiro & Brodine 2014). Many scholars point out that the Anthropocene has simply made visible the complex webs of relations in which humans and nonhumans have *always* been enmeshed, while also generating new, inescapable hybrids and relations in the present. Apprehending these old and new hybrids and relations means finding ways to transcend anthropology's traditional focus on humans, and asking: on what other terms can the Anthropocene be approached? To this end, many anthropologists draw on methods and analytics developed in 'multispecies ethnography' (Kirksey &

Helmreich 2010), a field of scholarship that foregrounds how all humans and nonhumans on the planet are 'entangled'—tied together and interdependent in various ways (e.g. Haraway 2008; Mitchell 2016; Reinert 2016; Rose 2011; Tsing 2015; van Dooren 2014). Rather than shunning such entanglements, they posit, why not use them to engender new possibilities for thinking about and living in the Anthropocene?

Such calls are often underpinned by a distinct ethical injunction: to elevate nonhuman entities into subjects worthy of scholarly attention, and also care and solidarity. Musing on the presence of penguins and flying foxes in urban spaces, for example, Thom van Dooren and Deborah Bird Rose refute the assumption that such animals are 'out of place' (2012: 2), advocating instead an 'ethic of conviviality for a genuinely inclusive multispecies city…that provides a space for the flourishing of as many different forms of life as possible' (2012: 17). Similarly, Anna Tsing (2011, 2015) propounds a form of 'multispecies love'—'passionate immersion in the lives of…nonhumans' (2011: 19)—as an antidote to the destructive excesses of global capitalism. For her, multispecies entanglements offer a glimpse of how life, like mushrooms in abandoned anthropogenic landscapes, can emerge from ruined places (2015: 6). Indeed, 'in a global state of precarity', she argues, 'we don't have choices other than looking for life in this ruin' (2015: 6).

For many of the scholars mentioned in this section, then, the interdependence of humans and nonhumans is not simply an ontological fact, but it may be a potent conceptual and ethical way of moving forward on a 'damaged planet' (Tsing *et al*. 2017). As Swanson *et al*. put it:

> Our continued survival demands that we learn something about how best to live and die within the entanglements we have. We need both senses of monstrosity: entanglement as life and as danger (2017: M4).

In such work, the Anthropocene is thus an opportunity to: 1) right old wrongs, particularly the anthropocentric hubris that caused such planetary ruination; and 2) create and experiment with new modes of understanding, living with/in, and transforming the Anthropocene, so as to make it plural, livable, even charming (Buck 2015). Here, hope and possibility (Kirskey, Shapiro & Brodine 2014) are key motifs; correctives to what Donna Haraway calls the 'game over' attitude (2016: 2) that characterises more cynical, hope*less* responses to the Anthropocene.

Such hopeful interventions are often accompanied by an impulse to play and experiment with existing scholarly methods and frameworks. Rather than writing straightforward ethnographies, anthropologists are increasingly turning to cross- and trans-disciplinary engagements—with art and artists (Davis & Turpin 2015; Kirksey, Schuetze & Helmreich 2014), natural sciences and scientists (Tsing 2015), and stories and storytelling (Haraway 2016; van Dooren & Rose 2012)—to overcome the limits of disciplinary knowledges, practices, and barriers. These experimental, collaborative projects are generally characterised by two attributes.

First, many are 'transgressive' (Kirksey, Schuetze & Helmreich 2014: 17) and 'speculative' (Davis & Turpin 2015: 17; Haraway 2016). Defying, rather than conforming to, academic conventions and expectations, they experiment with different methods, forms of knowledge, and aesthetics to 'imagine alternative [Anthropocenic] futures' (Lorimer 2017: 131). For example, Terike Haapoja and Laura Gustafsson (2015), creators of the art installation *The Museum of the History of Cattle* (2013), use the narrative of an imaginary cow in a way that urges the reader to reimagine the world's history, animal sociality, and the Anthropocene in bovine terms. In the process, they invite us to consider how we relate to nonhuman others in the Anthropocene, and what a non-anthropocentric Anthropocenic future might look like.

Second, as we saw above, these interventions are commonly framed as ethico-political manifestos that implicate their audiences in the urgent project of finding new ways to live and survive in the Anthropocene (see esp. Gibson, Rose & Fincher 2015; Kirksey, Shapiro & Brodine 2014; Tsing *et al*. 2017). Treating the ethical, the political, and the scholarly as of a piece, such speculative discussions impel anthropologists to embrace their connections with other entities and to formulate 'alternative political visions, modes of relation and opportunities for ethical responsiveness' (Mitchell 2016: 39). In contrast to the critical, deconstructionist agendas of the works cited in the previous section, these interventions are self-consciously experimental and collaborative—and always ethically and politically loaded. Yet, as the next section shows, they have their own limitations.

Re-politicising the Anthropocene

While enthusiastically adopted in some quarters, creative approaches to the Anthropocene have also been criticised for failing to rigorously interrogate the relationships between capitalism, power, inequality, and the Anthropocene. Such critiques typify a fourth main response to the Anthropocene in our discipline: one that emphasises historical contingency, political contestation, and socio-economic inequality. Contributors to this field have reproached both speculative and dominant scientific approaches for depoliticising their subject matter at a time when political engagement is most needed.

Three major concerns have been expressed regarding the dominant narrative generated by the Anthropocene Working Group. The first concerns its portrayal of the Anthropocene as a moment of rupture. In *The shock of the Anthropocene*, historians Christophe Bonneuil and Jean-Baptiste Fressoz (2016) contend that the dominant narrative perpetuates a historically inaccurate myth: that humans have suddenly awoken to the negative consequences of their actions upon the environment (see, e.g., Steffen *et al.* 2011). This awakening narrative, they argue, presumes that environmental inaction emerges from ignorance, as opposed to an ideological battle over how humans engage with the non-human world. It conceals longstanding environmental consciousness and previous grassroots political struggles against ecological degradation in the Global North and Global South, thereby depoliticising the contested history of the Anthropocene (Swyngedouw & Ernstson 2018). Bonneuil and Fressoz further argue that such narratives

glorify the position of scientists, placing them above society and suggesting that science can provide straightforward solutions to the Anthropocene while concealing a need for political choices. This narrative frames the Anthropocene in terms of human accomplishments, rather than taking it as an opportunity for humility and recognising the distinction between human influence and human control (Nixon 2017). The notion that the Anthropocene represents a sudden new era of ecological dystopia has also been critiqued by Indigenous scholars. Potawatomi scholar Kyle Whyte (2018), for example, argues that this fails to recognise that, from one Indigenous perspective, the Anthropocene is a perpetuation of environmental destruction, displacement, and extinction due to the violence of colonialism: for some Indigenous communities, he argues, the apocalypse already arrived long ago.

Secondly, scholars have argued that the dominant Anthropocene narrative treats humanity —the Anthropos —as a 'unitary species actor' (Nixon 2017: 24), or a singular universal subject. In this capacity, the imaginary of 'the anthropogenic' covers over the global and historical inequalities *between* humans that caused the Anthropocene, and that continue to structure global politics today (Sayre 2012). It thus fails to recognise the inequity of responsibility for anthropogenic climate change, as well as the unequal distribution of exposure to its impacts, thereby depoliticising analysis. Moreover, far from being universal, this vision of the Anthropos has been criticised for making wealthy European perspectives stand in for the experiences of all of humanity, thereby replicating the homogenising violence of colonialism (Davis & Todd 2017). Métis scholar Zoe Todd argues that the Eurocentrism of the dominant Anthropocene narrative is a consequence of its emergence from white Eurocentric institutions, and instead advocates a decolonization of the Anthropocene through bringing in Indigenous knowledges that emphasise the 'reciprocal, ongoing, and dynamic relationships' (2015: 251) between humans and nonhumans.

Thirdly, dominant Anthropocene narratives may also naturalise the development of the Anthropocene, depicting it as inevitable rather than identifying it as a consequence of contingent historical developments and particular political choices. Andreas Malm and Alf Hornborg (2014) note how, in some accounts, a linear trajectory is drawn from the discovery of fire to the development of the steam engine. This presentation of the Anthropocene as a natural, inevitable, teleological development depoliticises its origins, and limits political responses to it. Instead, they argue that the Anthropocene should be understood as a 'sociogenic' phenomenon, emerging from particular social relations and an uneven distribution of power between different nations, social groups, and species. Naturalising the Anthropocene can lead to an understanding of human domination of the planet and of nonhuman life as inevitable, with the epoch's very name maintaining an anthropocentric perspective to the exclusion of all others (Crist 2016). This failure to recognise the Anthropocene's historically contingent conditions can be attributed to a 'consequentialist bias' (Moore 2016) of dominant scientific approaches, reflecting their greater emphasis upon evidence of biophysical changes as opposed to systemic causes.

Responses to this singular Anthropocene grand narrative vary. Bonneuil and Fressoz advocate producing

multiple histories of the Anthropocene, which recognise the different political choices that have been and can be made (2016). Bringing analyses of power into the Anthropocene and rejecting the homogenised figure of the Anthropos, Malm and Jason Moore present contrasting accounts of a 'Capitalocene', an epoch defined by the impacts of Capitalism upon planetary systems, as opposed to those of all of humanity. While Malm (2016) focuses on the Industrial Revolution and the role of fossil fuels in capital accumulation, Jason Moore (2016; but c.f. Hornborg 2017) identifies 1450 and the mercantile capitalist era as the starting point of the Capitalocene. He argues that this period witnessed the production of 'Nature' as an abstracted object of power, and that it was the violent exclusion of 'Nature' from 'Society' that enabled the development of capitalism. Meanwhile, Hann (2017) urges an even more long-term perspective on the development of capitalism, one that overcomes what he perceives as the Eurocentrism of existing analyses. He focuses on Jack Goody's work and urban revolutions of the Bronze Age, arguing that the emergence of commodity as opposed to gift economies can be seen as part of the social, political, and cosmological preconditions of the Anthropocene.

Like the speculative scholarship discussed earlier, such writings undermine the Euro-American modernist division between 'nature' and 'society'. However, their interventions take a markedly different form. Rather than treating the Anthropocene as an opportunity for hopeful, creative speculation, they view it as a spur to unmasking and contesting long-standing political and socio-economic inequalities in the present. But does this entail entirely dissolving the differences between 'nature' and 'society'? Hornborg (2017), for one, rejects Moore's view of nature and society as entirely entangled. He contends that without a clear analytical separation of nature and society, capitalism cannot be critiqued, thereby diminishing the possibility for political action. Similarly, Erik Swyngedouw and Henrik Ernstson (2018) challenge what they label as a post-humanist rejection of nature/society distinctions. For them, an understanding of nature as entirely part of society and capitalism creates a view of nature that can be too easily managed and co-opted by neoliberalism. This depoliticises the Anthropocene, as it perpetuates the fantasy that life and capitalism can continue as they are, ignoring the need for decisive, radical socio-economic transformation.

Such neo-Marxist concerns about depoliticising the Anthropocene extend to their critiques of the speculative and creative approaches discussed above. Hornborg (2017), for example, accuses scholars like Tsing (2015) and Haraway (2016) of 'dithering' in the face of ecological crisis: producing poetic yet inaccessible, theoretically imprecise interventions that preoccupy the attention of critical scholars rather than critiquing inequality or encouraging political action. While blunter than most, Hornborg's critique typifies a specific kind of ethico-political position on the Anthropocene. Underpinned by the insights of political economy and political ecology, such scholarship treats anthropological critique as an intervention in the world: as a means of highlighting ongoing inequalities and historical contingencies and continuities, as well as the basis of a direct, engaged form of political action.

Conclusion

Jason Moore describes the Anthropocene as having 'two lives': one as a scientific concept and object of geological debate; and another as an idea that has moved beyond its natural science origins, permeating the social sciences and public discourse, and raising questions about the relationship between humans and the non-human world (2016: 80). This entry has offered a glimpse of the Anthropocene's second life as it is playing out in various anthropological quarters.

As we have seen, the Anthropocene is apprehended in multiple ways within anthropology: as an encompassing, threatening backdrop to ethnographic inquiry; as an idea and 'problem space' to be interrogated; as an opportunity for creativity, speculation, and experimentation; and as the outcome of historical inequalities and injustices. These varied figurations of the Anthropocene give rise to equally varied ethico-political positions and interventions. As the approaches above reveal, there are different, and differently scaled, ways of responding to the Anthropocene: to take it apart and focus on its small-scale, localised challenges; to critique its truth-claims and politics on various levels; or to capitalise on the Anthropocene as an opportunity to formulate new, hopeful, experimental possibilities for the future.

Embedded in, but also evolving through, these propositions are thus different visions of what anthropology is, could be, and can do. But such competing visions—and they are likely to be joined by many more—are not simply about the future of anthropology. As lenses onto the world, they raise much bigger questions about how the very categories of 'human' and 'non-human' and 'nature' and 'culture' are being reproduced, transformed, or even dissolved in the present moment. And as Anthropocenic phenomena impact ever more of the planet, and Anthropocenic discourses gain greater social, political, and moral traction, these are questions that will animate academic debates and affect the lives of millions of people for years to come.

Notes

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[1] At the time of writing (late 2018), 'the Anthropocene' has yet to be formally recognised by the International Union of Geological Sciences or the International Commission on Stratigraphy as a distinct geological epoch.

[2] A term that refers broadly to the movement of plants and animals such as potatoes, tomatoes, cattle, and sugarcane between the Americas and Europe, Africa, and Asia in the fifteenth and sixteenth centuries.

[3] The term 'majority world' collectively refers to the countries of Asia, Africa, Latin America and Oceania – who make up the majority of the world's population – without defining them negatively in comparison with Europe and North America (unlike the categories 'third world' or 'developing world').

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