



On the Importance of a Date, or Decolonizing the Anthropocene¹

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Abstract

This article argues for the importance of including Indigenous knowledges into contemporary discussions of the Anthropocene. We argue that a start date coincident with colonization of the Americas would more adequately open up these conversations. In this, we draw upon multiple Indigenous scholars who argue that the Anthropocene is not a new event, but is rather the continuation of practices of dispossession and genocide, coupled with a literal transformation of the environment, that have been at work for the last five hundred years. Further, the Anthropocene continues a logic of the universal which is structured to sever the relations between mind, body, and land. In dating the Anthropocene from the time of colonialization, the historical and ideological links between the events would

¹ This paper was originally written in June, 2016 as the members of the Anthropocene Working Group were deciding upon the status and appropriate date for the proposed epoch. It was meant as an intervention into their decision-making process, in the hopes that they might place the ‘golden spike,’ or start date, at 1610. As such, a draft of this article was circulated amongst the Working Group members that summer. Although the Working Group’s work has come to an end, the Anthropocene has not yet been officially adopted and the start date has yet to be decided upon. We hope that this article might serve as a continued intervention to show the political efficacy of placing the GSSP at 1610.

become obvious, providing a basis for the possibility of decolonization within this framework.

Keywords

Anthropocene; decolonization; Indigenous philosophy; colonialism

Introduction

The Anthropocene is here. These were the headlines following the conclusion of the Working Group on the Anthropocene in August 2016. The group recommended the adoption of the Anthropocene as a new geological epoch to the International Geological Congress (IGC). The approval process will take an estimated two more years and still requires ratification from three academic bodies (Phys.org 2016), but it will most likely be named an official epoch following the Holocene. This recommendation clearly has political implications beyond the bounds of the discipline of geology, for stating that we are living in a geologic epoch determined by the detritus, movement, and actions of humans is itself a political act. Andrew Barry and Mark Maslin have recently argued that Paul Crutzen himself – the atmospheric chemist who, alongside ecologist Eugene Stoermer, popularized the term ‘Anthropocene’ in its current iteration (Crutzen and Stoermer 2000) – recognizes that the concept of the Anthropocene “had evident political and ethical implications” (Barry and Maslin 2016, np). If instantiated as an epoch, the political stakes of this claim rest in part on the placement of the ‘golden spike’ or the Global Boundary Stratotype Section and Point (GSSP),² the date at which geologists decide that the Anthropocene would begin. In other words, it is not only the decision of *whether or not* the current geological time frame should be considered the Anthropocene, but the question of *when* that opens up political consequences far beyond the IGC. A number of dates have been proposed, from the birth of agriculture to the first steam engine, but the working group has recommended the mid-twentieth century as the optimal boundary. The mid-twentieth century is the working group’s preferred start date due to the fact that so many measurable anthropogenic changes began at that moment. Referred to as the ‘great acceleration’ (Steffen et al. 2015), these changes are now written into the geologic strata and can be seen globally.³

² This is a marker placed in geological strata to identify the beginning of the new epoch (University of Leicester 2016)

³ The geologic markers that coincide with a start date for the Anthropocene in the 1950s include carbon dioxide levels, mass extinctions, and the widespread use of petrochemicals including plastic,

Since we are not geologists, we cannot evaluate the dates for their stratigraphic accuracy or scientific merit. However, we would like to propose that this dating of the Anthropocene misses a valuable opportunity for evaluating the concept and opening it up beyond its current Eurocentric framing. Instead, we argue that placing the golden spike at 1610, or from the beginning of the colonial period, names the problem of colonialism as responsible for contemporary environmental crisis. If the Anthropocene is already here, the question then becomes, what can we do with it as a conceptual apparatus that may serve to undermine the conditions that it names? One could object that by dating the Anthropocene to colonialism we are undoing the critical and creative work that has been done to name the problem of colonialism and its power differentials because the Anthropocene, as a term, erases these questions of power. Indeed, many people in the humanities have pointed out the failure of the Anthropocene, as a concept, to adequately account for power relations.⁴ Instead, all humans are equally implicated under the sign of the ‘anthopos.’ But rather than abandon the term because of these connections, we feel that the Anthropocene betrays itself in its name: in its reassertion of universality, it implicitly aligns itself with the colonial era. By making the relations between the Anthropocene and colonialism explicit, we are then in a position to understand our current ecological crisis and to take the steps needed to move away from this ecocidal path.

Our contention here is that the Anthropocene, if explicitly linked to the beginnings of colonization, would at least assert it as a critical project that understands that the ecocidal logics that now govern our world are not inevitable or ‘human nature’, but are the result of a series of decisions that have their origins and reverberations in colonization. From this place, we can begin the project of decolonizing the Anthropocene. However, without recognizing that from the beginning, the Anthropocene is a universalizing project, it serves to re-invisibilize the power of Eurocentric narratives, again re-placing them as the neutral and global perspective. By linking the Anthropocene with colonization, it draws attention to the violence at its core, and calls for the consideration of Indigenous philosophies and processes of Indigenous self-governance as a necessary political corrective, alongside the self-determination of other communities and societies violently impacted by the white supremacist, colonial, and capitalist logics instantiated in the origins of the Anthropocene.

The story we tell ourselves about environmental crises, the story of humanity’s place on the earth and its presence within geological time determines

but the most convincing marker is the plutonium left from radioactivity left from the detonation of atomic bombs.

⁴ This problem of universalization is the reason why others have called for the Anthropocene to be re-named the Capitalocene (Haraway 2015; Malm 2013; Moore 2015), Eurocene (Grove 2016) or White Supremacy Scene (Mirzoeff 2016).

how we understand how we got here, where we might like to be headed, and what we need to do. We make the case for colonialism as the start date of the Anthropocene for two reasons: the first is to open up the geologic questions and implications of the Anthropocene beyond the realm of Western and European epistemology to think with Indigenous knowledges from North America; the second is to make a claim that to use a date that coincides with colonialism in the Americas allows us to understand the current state of ecological crisis as inherently invested in a specific ideology defined by proto-capitalist logics based on extraction and accumulation through dispossession – logics that continue to shape the world we live in and that have produced our current era. We focus on North America because that is the place that both of us currently live and have grown up in. We recognize that to be taken seriously by the IGC we would need to propose a date that could be seen as having a global impact, but we refuse to write from an un-embodied or universal position, and by writing from where we know, we hope we can connect to other histories that are beyond the scope of this article and to incite further reflection from other parts of the world. We see this article as one part of a broader collaborative intervention into the current universalist (read: Eurocentric) discourses of the Anthropocene, hopefully making space for further discussions about the Anthropocene and its impacts from other oppressed and marginalized communities. Further, in making this claim, we are aligning ourselves with the date that Simon Lewis and Mark Maslin propose, what they call the ‘Orbis Spike’ of 1610.⁵ We also recognize that it is perhaps not as important to come up with a fixed or universal date for the beginning of the Anthropocene as it is to understand the explicit and implicit political investments of this term and its consequences. We intend for this argument to be constructive in situating the concept of the Anthropocene as one that we hope can traverse the natural and social sciences and humanities. To accomplish this, we take the fact of the Anthropocene as given, as recommended by the IGC working group, however, we seek to build upon existing evidence to shift the terms of this discourse to open up ways to think through the cyclical nature of what we are now collectively experiencing. To provide context, we are a team consisting of a white settler-Canadian who grew up in Métis, Ojibway/Chippewa territory in Pinawa, Manitoba and Algonquin/Anishnabek territory in Deep River, Ontario, Canada; and an Indigenous (Métis) woman who grew up in amiskwaciwâskahin (Edmonton), Alberta, Canada.

⁵ The “Orbis spike,” is what Lewis and Maslin call the decrease in atmospheric carbon dioxide that measured the genocide of Indigenous peoples. The word refers to the Latin for world, because after 1492 human relations became intensively globalized in ways different from previous inter-regional or inter-continental relations.

These decisions regarding the start date of the Anthropocene are particularly pertinent for the discipline of geography, from physical to environmental to human geography, straddling both the sciences and humanities (Barry and Maslin, 2016). The Anthropocene, like the etymology of geography, describes the literal writing of the earth: geo-graphy. The Anthropocene is the epoch under which ‘humanity’ – but more accurately, petrochemical companies and those invested in and profiting from petrocapi-talism and colonialism – have had such a large impact on the planet that radionuclides, coal, plutonium, plastic, concrete, genocide and other markers are now visible in the geologic strata. Noel Castree describes it as a ‘promiscuous concept’ that is particularly relevant to geography because “it describes not merely the ‘human impact’ *on* the nonhuman world but also the folding of human activity into earth-surface systems such that it becomes in some sense *endogenous* to those systems” (2015, np). As Mark Maslin notes “in many ways the Anthropocene is the perfect conceptualisation of what ‘geography’ as a subject has always represented” (2016, 8). The Anthropocene, and thinking with geology, has increasingly been taken up by critical geographers who are interested in thinking with the human, and human politics, through the consequences into deep time. This can be seen in recent essays by Kathryn Yusoff whose work examines ‘geologic life’ through the figures of fossils and fossil fuels (2013), geologic subjects (2015), and the new narratives that the Anthropocene creates, or, in her terms, an anthropogenesis (2016). Nigel Clark argues that the Anthropocene has become a moment to think with earth processes themselves, as a kind of ‘speculative geophysics’ (2012, 260). Elizabeth Johnson and Harlan Morehouse, together with contributions from six other geographers (2014), reflect on the intervention of the Anthropocene for the discipline of geography and the attending possibilities for pedagogy and political action. Geography, then, is particularly well suited to thinking through the difficulties of both geologic time and its socio-political implications.

In what follows, we begin by outlining the political consequences of the proposed date for the beginning of the Anthropocene – the mid-twentieth century – stating the reasons why we feel 1610 would be a more efficacious date. We then move on to show how the logic of the Anthropocene is already entwined with colonialism, and end with a discussion of how Indigenous knowledges should be productively engaged to disrupt and undo these universalizing and violent logics.

Dates and consequences

The date that the Anthropocene Working Group has recommended is the mid-twentieth century. Steffen et al. (2015) argue that the onset of the Anthropocene coincides with the measurable impacts of the ‘great acceleration’ upon the Earth System (often settling on 1964). While this date is quite convincing because it groups together all of the obvious horrors of the twentieth century, from the atomic bomb, to petrochemicals, to overconsumption and waste (particularly of

non-biodegradable substances such as plastics and concrete), due to the globality of these problems, this date doesn't significantly differentiate between countries, ideologies, or ways of life. Instead, we are all grouped together under the sign of the ubiquitous hockey stick graphs – the graphs that show the increase of various human activities indicative of the 'great acceleration' – where McDonald's, international tourism, population and ocean acidification bind the whole of humanity together into one horrifying reality.⁶ While this may be an accurate depiction of the past seventy years, it does little to register the very real differences between peoples, governments, and geographies in their complicity with these processes. Further, the diffuse, global and overwhelming problems associated with these figures leaves little analysis for political action. It is much easier to simply despair of our present circumstances. We also wonder, not being geologists, how it would be possible to predict the impacts of an epoch that will supposedly last so far into the future with so little geologic data to go on. When geologic epochs typically last more than three million years, it seems rather pre-emptive to be deciding this in advance and with the stratigraphic records of less than a century.

We are not the first to propose colonialism, and its compatriot, settler colonization, as the start date of the Anthropocene. Geographers Simon L. Lewis and Mark A. Maslin advanced two hypotheses for the possible golden spike, one of which is the Columbian Exchange, which they date to 1610. They propose 1610 for two reasons. The first is that the amount of plants and animals that were exchanged between Europe and the Americas during this time drastically re-shaped the ecosystems of both of these landmasses, evidence of which can be found in the geologic layer by way of the kinds of biomass accumulated there. The second reason, which is a much more chilling indictment against the horrifying realities of colonialism, is the drop in carbon dioxide levels that can be found in the geologic layer that correspond to the genocide of the peoples of the Americas and the subsequent re-growth of forests and other plants. Lewis and Maslin note that in 1492 there were between 54 to 61 million peoples in the Americas and by 1650 there were 6 million. They argue that "On the basis of the movement of species, atmospheric CO₂ decline and the resulting climate-related changes within various stratigraphic records, we propose that the 7–10 p.p.m. dip in atmospheric CO₂ to a low point of 271.8 p.p.m. at 285.2 m depth of the Law Dome ice core 75, dated 1610 (615 yr; refs 75, 76), is an appropriate GSSP marker" (2015, 175). In making this claim, they understand that the implications move far beyond the geologic realm. As they write:

The Orbis spike implies that colonialism, global trade and coal brought about the Anthropocene. Broadly, this highlights social concerns, particularly the *unequal power relationships between*

⁶ For examples of these graphs see Syvitski (2012); and Steffen et. al. (2011).

different groups of people, economic growth, the impacts of globalized trade, and our current reliance on fossil fuels. The onward effects of the arrival of Europeans in the Americas also highlights a long-term and large-scale example of human actions unleashing processes that are difficult to predict or manage. (2015, 177, our emphasis)

Here, they recognize that such a proposal will impact how we understand human actions on the environment, and more generally the human-environment relation itself, as they explicitly acknowledge that this kind of differential and brutal power “unleashes processes that are difficult to predict or manage.” They write that the “formal definition of the Anthropocene makes scientists arbiters, to an extent, of the human–environment relationship, itself an act with consequences beyond geology.” (2015, 171).

Geologists and other scientists will fight over these markers in scientific language, seeking traces of carbon dioxide that index the worst offenses of European empires which rent and violated the flesh,⁷ bodies and governance structures of Indigenous and other sovereign peoples in the name of gold, lumber, trade, land and power. But the terms to some extent have already been foreclosed by the discipline of geology. The use of ‘evidence’ here in Lewis and Maslin’s work is a particular kind of tracer. Evidence does not, generally, entail the fleshy stories of kohkoms (the word for grandmother in Cree) and the fish they fried up over hot stoves in prairie kitchens to feed their large families. As Todd points out: “Evidence generally precludes the flash of a school of minnows in the clear prairie lakes I intimately knew as a child, or the succulent white fish my stepdad caught for us from the Red Deer River when I was growing up” (2016). But these fleshy philosophies and fleshy bodies are precisely the stakes of the Anthropocene, as the Anthropocene has exacerbated existing social inequalities and power structures and divided people from the land with which they and their language, laws, and livelihoods are entwined. The stories we will tell about the origins of the Anthropocene implicate how we understand the relations we have with our surrounds. In other words, the naming of the Anthropocene epoch and its start date have implications not just for how we understand the world, but this understanding will have material consequences, consequences that affect bodies and land.

Severing mind from body and land: The problem of the universal

As many others have pointed out, the term Anthropocene itself is problematic because it fails to make the kinds of differentiations between world views, economies, and systems of power that we are trying to untangle here (Malm

⁷ This particular notion of flesh and land is drawn from the work of Vanessa Watts (2013), as explored in the following section.

2013; Moore 2015; Haraway 2016; Mirzoeff 2016). Further, the ways in which the Anthropocene as a term has been used by Crutzen and Stoermer similarly continues this unthinking ideology of divorcing thought (and by implication, humans) from other relations. In their seminal article that introduced the term Anthropocene to the written canon, simply titled “The Anthropocene,” Crutzen and Stoermer (2000: 17-18) rely upon the concept of the ‘noosphere’ to articulate their position. They define the noosphere as “the world of thought, to mark the growing role played by mankind’s [sic] brainpower and technological talents in shaping its own future and environment” (2000, 17), a concept they credit to P. Teilhard de Chardin and E. Le Roy (2000, 17). The noosphere places thought *above* the biosphere and geosphere, and is framed as a teleological progression that follows the development of the earth’s geological features and biota, as demonstrated by de Chardin’s writings on the concept. In reflecting on the progression of human influence upon the globe itself, de Chardin argues:

we must enlarge our approach to encompass the formation, taking place before our eyes and arising out of this factor of hominization, of a particular biological entity such as has never before existed on earth – the growth, outside and above the biosphere, of an added planetary layer, an envelope of thinking substance, to which, for the sake of convenience and symmetry, I have given the name of the Noosphere. (2004, 151)

This conceptualization assumes that the biosphere cannot, in and of itself, constitute an ‘envelope of thinking substance’, which contradicts the work of biosemiotics (Bateson 1972, Kohn 2013) and the thousands of years of philosophy of many Indigenous peoples (Cruikshank 2005, Watts 2013, Vine Jr. 1997, Qitsialuk 1998, Bawaka Country et al. 2015, de la Cadena 2010, Povinelli 1995, Povinelli 2016). Drawing on this concept of a ‘thinking layer’ emergent in the earth’s processes, Crutzen and Stoermer offer the following thoughts on collective work necessary to address the Anthropocene:

To develop a world-wide accepted strategy leading to sustainability of ecosystems against human induced stresses will be one of the great future tasks of mankind [sic], requiring intensive research efforts and wise application of the knowledge thus acquired in the noosphere, better known as knowledge or information society. An exciting, but also difficult and daunting task lies ahead of the global research and engineering community to guide mankind [sic] towards global, sustainable, environmental management. (2000, 15)

The noosphere, while a generative category, which Crutzen and Stoermer credit with their thinking on the Anthropocene itself, replicates a Euro-Western division of mind/thought from land when it is framed as the business of ‘research and engineering.’ The construction of a noosphere that privileges research and

engineering is counter to many Indigenous concepts, which do not recognize or centre this teleological concept developing separately from the earth and its constituents. In tethering the Anthropocene to colonialism, as we hope to show here, the links between the emergence of ecological disaster and concepts such as the noösphere become clear. In other words, the noösphere which considers thought separate from – and above – geology and biota replicates the foundational and epistemic violence of European colonialism which Lewis and Maslin propose *caused* the Anthropocene.

The Anthropocene inadvertently and unintentionally signals what we are arguing here: that *the Anthropocene as the extension and enactment of colonial logic systematically erases difference*, by way of genocide and forced integration and through projects of climate change that imply the radical transformation of the biosphere. Universalist ideas and ideals are embedded in the colonial project as it was enacted through a brutal system of imposing “the right” way of living. In actively shaping the territories where colonizers invaded, they refused to see what was in front of them; instead forcing a landscape, climate, flora, and fauna into an idealized version of the world modelled on sameness and replication of the homeland.

If we use the momentum that this concept has gained to train our imaginations to the ways in which environmental destruction has gone hand in hand with colonialism, then we can begin to address our relations in a much wider context. Our interest in the ‘golden spike’ is a pragmatic one, in so far as it ties the Anthropocene to colonialism. However, we are interested in much more than the designation of this scientific marker, we are interested in how rock and climate are bound to flesh. As Watts points out: “Our truth, not only Anishnaabe and Haudenosaunee people but in a majority of Indigenous societies, conceives that we (humans) are made from the land; our flesh is literally an extension of soil” (2013, 27).

Drawing on Anishinaabe and Haudenosaunee history and philosophy, and the relatedness of land and flesh, Vanessa Watts articulates a concept of Indigenous Place-Thought. She describes Place-Thought as “the non-distinctive space where place and thought were never separated because they never could or can be separated. Place-Thought is based upon the premise that land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts” (2013: 21). Watts’ concept of Indigenous Place-Thought, drawn from her own familiarity with deeply-rooted Indigenous philosophies still practiced and applied in North America, necessarily disrupts a concept of knowledge separate from the geosphere and biosphere, and posits instead that land and thought are *integral* to one another. Biota, geology and thinking are one and the same. In theories such as Watts’ (2013) Indigenous Place-Thought, we are introduced to the philosophical argument that life and thought on earth is animated through and

bound to bodies, stories, time and land. We therefore seek here to demonstrate and underline how global colonial dispossession haunt through bones, bodies, and stories.

Colonialism, especially settler colonialism – which in the Americas simultaneously employed the twinned processes of dispossession and chattel slavery – was always about changing the land, transforming the earth itself, including the creatures, the plants, the soil composition and the atmosphere. It was about moving and unearthing rocks and minerals. All of these acts were intimately tied to the project of erasure that is the imperative of settler colonialism. Eyal Weizman, writing about climate change in relation to Bedouin communities, could equally be writing about the wider processes of terraforming that defines the Anthropocene. He argues:

If, however, following historian Dipesh Chakrabarty, we look at climate change from the point of view of the history of colonialism, we no longer simply see it as a collateral effect of modernity, but rather as its *very target and aim*. Indeed, colonial projects from North America through Africa, the Middle East, India and Australia sought to re-engineer the climate. Colonizers did not only seek to overcome unfamiliar and harsh climatic conditions, but rather to transform them. Native people, who were seen as part of the natural environment, were displaced along with the climate or killed. Although the attempt was to make the desert green, instead the green fell fallow, lakes deadened, and oceans rose. (2015, 36, our emphasis)

What settler colonialism, and its extensions into contemporary petrocapiatalism, does is a severing of relations. It is a severing of relations between humans and the soil, between plants and animals, between minerals and our bones. This is the logic of the Anthropocene. This is the logic that has resulted in the amalgamation of conditions that ask us to consider what we are writing into the body of the earth. Dakota scholar Kim Tallbear writes eloquently about this condition:

The decimation of humans and nonhumans in these continents has gone hand in hand. When one speaks of genocide in the Americas it cannot be understood in relation to the European Holocaust, for example, that is seen as having a beginning and an end, and which is focused on humans alone. Our genocide in the Americas included and continues to include our other-than-human relatives. ... We need kin to survive. In turn, Indigenous peoples speak out not necessarily from individual courage but rather their irrepressible voices cannot but call attention to injustices, and they continue to

call the settler state to account for its failures at kin-making here, with both humans and nonhumans. (Tallbear 2016: np)

In a deliberate manner, the processes of colonization severed relations, because it was through this severing that dispossession and integration could take place. Therefore, the genocide of the Americas was also a genocide of all manner of kin: animals and plants alike.

Kyle Whyte, of the Citizen Potawatomi Nation, also argues that the Anthropocene is the deliberate enactment of colonial processes that refuse to acknowledge specific and locational relations between humans, the land, and our other kin. The damming of rivers, clear-cutting of forests, and importation of plants and animals remade the worlds of North America into the vision of a displaced Europe, fundamentally altering the climate and ecosystems. Settler colonialism, in North America and elsewhere, is marked by this process of terraforming. As Whyte argues, “industrial settler campaigns erase what makes a place ecologically unique in terms of human and nonhuman relations, the ecological history of a place, and the sharing of the environment by different human societies” (2016a, 8). Further, the forced displacement that many tribal communities suffered involved adaptation to entirely new environments, to new climates, new ecosystems, new plants and animals. These processes of environmental transformation and forced displacement can be understood as climate change, or more broadly, a preview of what it is like to live under the conditions of the Anthropocene. And so, as Whyte makes clear, the current environmental crises which are named through the designation of the Anthropocene, can be viewed as a continuation of, rather than a break from, previous eras that begin with colonialism and extend through advanced capitalism.

In this light the Anthropocene, and the uneven impacts on the global poor, can be understood not just as an unfortunate coincidence or accident, but rather as a *deliberate extension of colonial logic*. As Whyte writes:

Thinking about climate injustice against Indigenous peoples is less about envisioning a new future and more like the experience of déjà vu. This is because climate injustice is part of a cyclical history situated within the larger struggle of anthropogenic environmental change catalyzed by colonialism, industrialism and capitalism – not three unfortunately converging courses of history. (2016b: 12)

The violence of colonialism rent and tore apart and disrupted the worlds in the places both of us currently reside – these unceded and unsundered lands across North America – that hit like a seismic shock.

Allow us to dwell a bit in a construct of time, drawing here on Indigenous philosophies, as fluid, malleable, and circular. The seismic shock of dispossession and violence that colonialism employed to gain entry into and claims over Indigenous lands around the globe in the 15th, 16th, 17th, 18th, 19th centuries – this

seismic shock kept rolling like a slinky – pressing and compacting in different ways in different places as colonialism spread outwards into homelands of self-determining peoples around the globe. This worked to compact and speed up time, laying waste to legal orders, languages, place-story in quick succession. The fleshy, violent loss of 50 million Indigenous peoples in the Americas is something we read as a ‘quickenning’ of space-time in a seismic sense.

In the early versions of this article, we employed the metaphor of the ‘seismic shock’ of colonial temporality on its own. However, in revising the text for publication in 2017, we note that this metaphor of the seismic shock resonates with the concept of ‘wake work’ that Christina Sharpe (2016) articulates; a concept which deeply shapes our ongoing thinking about temporality and the Anthropocene. She describes the ongoing reverberations of violence and the rending of life-worlds in the wake of the ships and violent ideologies that transported captured Africans across the Atlantic. Sharpe teaches us that “in the wake, the past that is not past reappears, always, to rupture the present” (2016, 9). We evoke Sharpe’s work here because we want to explicitly acknowledge the intertwined and interdependent violences of the Transatlantic slave trade and the genocidal dispossession of Indigenous peoples and territories. This matters because, as Sharpe teaches us, entanglements of space, time, and injustice in the wake of white supremacist violation are ongoing (2016, 5). Building on her work, we can gesture to how the entangled violences of capital and white supremacy have their direct roots in the epistemic violences of discovery, dispossession, extraction, and the horrific capture of life, bodies, and worlds. The notion of the Anthropocene–as-disaster in dominant scientific and social science discourses must also tend to the ongoing disaster of the Middle Passage:

Transatlantic slavery was and is the disaster. The disaster of Black subjection was and *is* planned; terror is disaster and “terror has a history” (Youngquist 2011, 7) and it is deeply atemporal. The history of capital is inextricable from the history of Atlantic chattel slavery. The disaster and the writing of disaster are never present, are always present. (Sharpe 2016, 5)

This is precisely why we must expand and pluralize collective understandings of the disasters of the Anthropocene, and we must certainly expand our temporality beyond the Anthropocene Working Group’s preferred date of the 1964. In drawing readers back to the ‘cyclical’ (Whyte 2016b) colonial violences of the last five hundred years, we seek here to expand environmental discourses in ways that acknowledge the plural human and nonhuman entanglements that shape the present. In gesturing to Indigenous suffering in North America we have great responsibilities to also attend to the time-scapes and realities of those people and

communities whose ancestors were violently dispossessed through the Transatlantic slave trade.⁸

At the end of worlds – including the end of plural Indigenous worlds around the entire globe several hundred years ago and right through to the 20th century – were a violent upheaval that compressed space and time in terrifying and unpredictable ways. Cutcha Risling Baldy, who is Hupa, Yurok, and Karuk, writes about how she employs the serial ‘The Walking Dead’ to illustrate to her students what it was like for Indigenous peoples to contend with the end of worlds in the advent of colonial dispossession in what is now California – where she is from – what it was like for Indigenous peoples to face the end of worlds (2014). In many ways, in reading her work, we have come to see one aspect of Indigenous legal orders and decolonization in the Americas as the governance, stories, tenderness, and care required to address the realities of post-apocalyptic survivors. Anishinaabe scholar Lawrence Gross frames the phenomenon of post-apocalyptic stress syndrome, which he argues is the result of the upheavals wrought by colonial violence:

One critical aspect of exploring the reality of Native American history is to correctly name the experience Native Americans have suffered and which they continue to endure to this day. To put it in a word, Native Americans have seen the end of their respective worlds. Using vocabulary from the study of religion, this should be correctly termed an apocalypse. Just as importantly, though, Indians survived the apocalypse. This raises the further question, then, of what happens to a society that has gone through an apocalyptic event? The effects of the apocalypse linger on and the history of apocalypse continues to be the current-day reality for many Native Americans. (2014, 33)

As Gross and Baldy demonstrate in their work, Indigenous peoples contended with the end of their worlds, and continue to work to foster and tend to strong relationships to humans, other-than-humans, and land today. This Indigenous resistance in the face of apocalypse, and the renewal and resurgence of Indigenous communities *in spite of* world-ending violence is something that Euro-Western thinkers should heed as we contend with the implications of the Imperial forces that set in motion the seismic upheaval of worlds back in 1492. It is especially something to be heeded in light of the fact that the Anthropocene, as well as

⁸ To clarify, we do not wish to appropriate these narratives of the Middle Passage, given that neither of us are related to those African and African-descended people violently subjected to the chattel slave trade. However, we understand that our existences are bound together, calling on us to honour these stories as motivation to tend to plural and capacious forms of healing and transformation as we decolonize the Anthropocene.

climate change, are often figured themselves as apocalyptic events. As Whyte writes:

This historically brief, highly disruptive moment, “today’s dystopia of our ancestors,” sounds a lot like what others in the world dread they will face in the future as climate destabilization threatens the existence of species and ecosystems. Yet for many indigenous peoples, the Anthropocene is not experienced as threatening in precisely the same sense because the particular era of settlement I am describing forced many of our societies to let go of so many relationships with plants, animals and ecosystems at a wrongfully rapid pace. Rather, if there is something different in the Anthropocene for indigenous peoples, it would be just that we are focusing our energies *also* on adapting to another kind of anthropogenic environmental change: climate destabilization. (2016a: 3)

We argue that this seismic shockwave has rolled through and across space and time and is now hitting those nations, legal systems, and structures that brought about the rending and disruption of lifeways and life-worlds in the first place. The Anthropocene – or at least all of the anxiety produced around these realities for those in Euro-Western contexts – is really the arrival of the reverberations of that seismic shockwave into the nations who introduced colonial, capitalist processes across the globe in the last half-millennium in the first place. Much as Sharpe (2016) describes the ongoing ‘wake’ of slave ships, the seismic shockwave of colonial earth-rending is an ongoing epistemic present, and we envision the seismic shockwave as a reckoning, one laying bare the human and environmental injustice of the orders upon which late-stage capitalism and white supremacy are built.

Decolonizing the Anthropocene

In order to adequately address climate change and other environmental catastrophes we also need to seriously think through and enact processes of decolonization. This involves self-governance for Indigenous peoples, the return of stolen lands, and reparations for the descendants of captured Africans,⁹ but it also fundamentally questions the bounds and the legitimacy of the nation-state structure itself. As we are already seeing around the world, people will not simply sit still in the face of ecological destruction, but will move, adapt, and try to find ways of recomposing with their kin and companion species. The adaptability of many Indigenous peoples and our/their semi-nomadic ways of life meant that our/their

⁹ Reparations must address structural inequalities, including electoral and judicial reform, rather than simply being understood as a government payout. See, for example, Bryan Stevenson’s brilliant articulation of the necessity of reparations for healing (2016).

societies were incredibly resilient in the face of climate disruptions. However, as a result of settler colonialism and the attendant nation-state structures, borders and treaties bind people inside a given territory, containing them. This means that people will not necessarily continue to have access to the animals, plants, rocks and waters that they rely upon and are entwined within. If wild rice, for example, begins to move further and further north due to warming weather patterns, the people who care for those plants, and who are in turn cared for by wild rice, cannot necessarily follow. “Indigenous peoples cannot practically plan to shift their seasonal subsistence and economic activities if a valuable plant’s or animal’s habitat moves outside of a treaty area or crosses a transnational border” (Whyte 2016b, 4). And the links to particular ecological systems are not incidental, as they are often viewed within Western, industrialized nations where our ways of life systematically divorce us from and deny our implication within ecologies. Instead, governance systems, cultural practices, and gendered roles are all tied to relations with particular plants, animals, skies, rocks, waters. “Kenny Pheasant, an elder, says ‘Decline of the sturgeon has corresponded with decline in sturgeon clan families’” (Whyte 2016a, 5). Similarly, the resiliency of people across the world for collective continuance is dependent upon this freedom of movement which is systematically denied by the state forms of governance we currently have in place. We call here for those studying and storying the Anthropocene to tend to the ruptures and cleavages between land and flesh, story and law, human and more-than-human. Rather than positioning the salvation of Man¹⁰ – the liberation of humanity from the horrors of the Anthropocene – in the technics and technologies of the noösphere, we call here for a tending once again to relations, to kin, to life, longing, and care (Sharpe 2016, TallBear 2016). This commitment to tenderness and relationships is one necessary and lasting refraction of the violent and unjust worlds set in motion by the imperialist white supremacist capitalist [hetero]patriarchy (hooks, nd) at the beginning of the colonial moment.

What is truly terrifying about the times we live in is not only the cyclical recurrence of climate change. It is not the fact that white people and people with power are now having to face what Indigenous peoples, Black people whose ancestors experienced the horrors of slavery, and others have faced for the past five hundred years – that could be considered some kind of perverted justice. But the scale of the destruction has increased exponentially, while our governance systems often work against efforts to sustain liveable climates and the abilities of people to adapt. As Ta-nehisi Coates writes:

¹⁰ Sylvia Wynter draws attention to the ways in which the concept of Man, which is the “foundational basis of modernity” serves to deny humanity to many people while also divorcing humans from the earth (2003, 288). She calls for an unsettling of Man in order to reinscribe a humane vision of the human.

Once, the Dream's parameters were caged by technology and by the limits of horsepower and wind. But the Dreamers have improved themselves, and the damming of seas for voltage, the extraction of coal, the transmuting of oil into food, have enabled an expansion in plunder with no known precedent. And this revolution has freed the Dreamers to plunder not just the bodies of humans but the body of the Earth itself. (2015, 150)

Industrialized capitalism might make us forget our entwined relations and dependency on this body of the Earth, but we are surrounded by rich traditions and many people that have not forgotten this vital lesson. If we are to adapt with any grace to what is coming, those with power – including the limited power of the members of the IGC – would do well to begin to listen to those voices.

The Anthropocene is certainly not the best concept to address these questions of environmental justice and decolonization. However, it has been incredibly generative in providing a term that groups together the horrors of environmental crisis and in re-animating our relations with the world in a manner that draws, but is also differentiated from, the environmental movements of the past. In the decision-making processes that the IGC is currently engaged in, we hope to have shown that by dating the Anthropocene to colonialism we can at least begin to address the root of the problem, which is the severing of relations through the brutality of colonialism coupled with an imperial, universal logic. Through this, we might then begin to address not only the immediate problems associated with massive reliance upon fossil fuel and the nuclear industry, but the deeper questions of the need to acknowledge our embedded and embodied relations with our other-than-human kin and the land itself. This necessarily means re-evaluating not just our energy use, but our modes of governance, ongoing racial injustice, and our understandings of ourselves as human.

References

- Barry, Andrew and Mark Maslin. The politics of the Anthropocene: a dialogue. *Geo: Geography and Environment*. Vol. 3, Issue 2 (2016). doi: 10.1002/geo2.22.
- Bateson, Gregory. *Steps to an Ecology of Mind*. 1972. Chicago: University of Chicago Press.
- Bawaka Country, Wright, Sarah, Suchet-Pearson, Sandie, Lloyd, Kate, Burarrwanga, Laklak, Ganambarr, Ritjilili, Ganambarr-Stubbs, Merrkiyawuy, Ganambarr, Banbapuy, and Djawundil Maymuru. 2015. Working with and learning from Country: decentering human author-ity. *Cultural Geographies* 22(2): 269-283.

- Chardin, Pierre Teilhard De. 2004. *The Future of Man*. New York: Image Books/Doubleday.
- Clark, Nigel. Rock, Life, Fire: Speculative Geophysics and the Anthropocene. *Oxford Literary Review*. Vol. 34, Issue 2 (December 2012): 259-276.
- Cruikshank, Julie. 2005. *Do Glaciers Listen? Local Knowledge, Colonial Encounters & Social Imagination*. Vancouver: UBC Press.
- Crutzen, Paul J. 2002. Geology of Mankind. *Nature* 415, no. 6867: 23. doi:10.1038/415023a.
- Crutzen, Paul and Eugene Stoermer. 2000. The Anthropocene. *Global Change Newsletter* 41: 17-18.
- Coates, Ta-nehisi. 2015. *Between the World and Me*. New York: Spiegel & Grau.
- Glavin, Terry. 2006. *The Sixth Extinction: Journeys Among the Lost and Left Behind*. New York: Thomas Dunne Books.
- Gross, Lawrence William. 2014. *Anishinaabe Ways of Knowing and Being*. Farnham: Ashgate.
- Grove, Jairus. 2016. "Response to Jedediah Purdy." In Forum: The New Nature, *Boston Review*, January 11.
- Haraway, Donna and Martha Kenney. 2015. Anthropocene, Capitalocene, Chthulhocene. In Heather Davis and Etienne Turpin (eds.) *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies*. London: Open Humanities Press, pp. 255-270.
- Haraway, Donna. 2016. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press.
- hooks, bell. Nd. *Understanding Patriarchy*. Louisville: No Borders. <http://imagineborders.org/pdf/zines/UnderstandingPatriarchy.pdf>
- Johnson, Elizabeth, Harlan Morehouse, et. al. 2014. After the Anthropocene: Politics and geographic inquiry for a new epoch. *Progress in Human Geography* Vol. 38, Issue 3, 439-456.
- Kolbert, Elizabeth. 2014. *The Sixth Extinction: An Unnatural History*. New York: Henry Holt and Company.
- Kohn, Eduardo. 2013. *How Forests Think*. Berkeley and Los Angeles: University of California Press.
- Little Bear, Leroy. 2016. "Big Thinking - Leroy Little Bear: Blackfoot metaphysics 'waiting in the wings'". Congress of the Humanities and Social Sciences, Calgary. https://www.youtube.com/watch?v=o_txPA8CiA4

- Leakey, Richard and Roger Lewin. 1995. *The Sixth Extinction: Patterns of Life and the Future of Humankind*. New York: Doubleday.
- Malm, Andreas. 2013. The Origins of Fossil Capital: From Water to Steam in the British Cotton Industry. *Historical Materialism* 21 no. 1, 15-68.
- Mirzoeff, Nicholas. 2016. It's Not the Anthropocene, It's the White Supremacy Scene, Or, The Geological Color Line. In, Richard Grusin (ed.), *After Extinction*. Minneapolis: University of Minnesota Press.
- Moore, Jason. 2015. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. New York: Verso.
- Povinelli, Elizabeth. 1995. "Do Rocks Listen: The Cultural Politics of Apprehending Australian Aboriginal Labor." *American Anthropologist* 97(3), 505-518.
- Povinelli, Elizabeth. 2016. *Geontologies: A Requiem for Late Liberalism*. Duke University Press.
- Phys.org. 2016. The Anthropocene is here: scientists (August 29). <https://phys.org/news/2016-08-anthropocene-scientists.html>
- Qitsualik, Rachel Attitug. (1998). Word and Will—Part Two: Words and the Substance of Life. Nunatsiaq News November 12, 1998. Accessed 5 November 2017: http://www.nunatsiaqonline.ca/archives/nunavut981130/nvt81113_09.html
- Risling Baldy, Cutcha. 2014. On telling native people to just get over it, or why I teach about the Walking Dead in my Native Studies classes. Accessed January 2016: <http://www.cutcharislingbaldy.com/blog/on-telling-native-people-to-just-get-over-it-or-why-i-teach-about-the-walking-dead-in-my-native-studies-classes-spoiler-alert>
- Sharpe, Christina. 2016. *In the Wake: On Blackness and Being*. Duke University Press.
- Smith, Bruce D., and Melinda A. Zeder. 2013. The Onset of the Anthropocene. *Anthropocene* 4, 8-13. doi:10.1016/j.ancene.2013.05.001.
- Steffen, W., W. Broadgate, L. Deutsch, O. Gaffney, and C. Ludwig. 2015. The Trajectory of the Anthropocene: The Great Acceleration. *The Anthropocene Review* 2, no. 1, 81-98. doi:10.1177/2053019614564785.
- Steffen, Will, Jacques Grinevald, Paul Crutzen and John McNeill. 2011. The Anthropocene: conceptual and historical perspectives. *Philosophical Transactions of the Royal Society* 369, 842-867.
- Stevenson, Bryan. "A Question on Reparations" City Arts and Lectures in San Francisco (March 24, 2016) https://www.youtube.com/watch?v=8h2r_CHnx-o

- Syvitski, James. 2012. Anthropocene: An Epoch of Our Making. *Global Change Issue* 78 (March), 12-15.
- Tallbear, Kim. 2016. Failed Settler Kinship, Truth and Reconciliation, and Science <http://www.kimtallbear.com/homeblog/failed-settler-kinship-truth-and-reconciliation-and-science>
- Todd, Zoe. 2014. Fish Pluralities: Human-animal Relations and Sites of Engagement in Paulatuuq, Arctic Canada." *Études/Inuit/Studies* 38, no. 1-2: 217.
- Todd, Zoe. 2016. 'Indigenizing the Anthropocene: Prairie Indigenous Feminisms and Fish Co-Conspirators', Fisher Centre for the Study of Women and Men, Hobart and William Smith Colleges, Spring Speakers Series.
- University of Leicester. 2016. Media note: Anthropocene Working Group (AWG). <https://www2.le.ac.uk/offices/press/press-releases/2016/august/media-note-anthropocene-working-group-awg>
- Vine Jr., Deloria. 1995. *Red earth, white lies: Native Americans and the myth of scientific fact*. New York: Scriber.
- Watts, Vanessa. 2013. "Indigenous Place-thought & Agency amongst Humans and Non-humans (First Woman and Sky Woman Go on a European World Tour!)." *Decolonization: Indigeneity, Education & Society* 2, no. 1: 20-34.
- Weizman, Eyal. 2015. *The Conflict Shoreline*. Göttingen: Steidl.
- Whyte, Kyle. 2016a. Our Ancestors' Dystopia Now: Indigenous Conservation and the Anthropocene. In Ursula Heise, Jon Christense, and Michelle Niemann (eds.). *Routledge Companion to the Environmental Humanities*. London: Routledge.
- Whyte, Kyle. Forthcoming. What Do Indigenous Knowledges Do for Indigenous Peoples? In Melissa K. Nelson and Dan Shilling (eds). *Keepers of the Green World: Traditional Ecological Knowledge and Sustainability*.
- Whyte, Kyle. 2016b. Is it Déjà Vu? Indigenous Peoples and Climate Injustice. In Joni Adamson, Michael Davis and Hsinya Huang (eds). *Humanities for the Environment: Integrating Knowledges, Forging New Constellations of Practice*. Earthscan Publications, pp. 88-104.
- Wynter, Sylvia. 2003. Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument. *CR: The New Centennial Review* 3, 257-337.
- Yusoff, Kathryn. 2013. Geologic Life: Prehistory, climate, futures in the Anthropocene. *Environment and Planning D: Society and Space*. Vol. 3, 779-795.

- Yusoff, Kathryn. 2015. Geologic subjects: nonhuman origins, geomorphic aesthetics and the art of becoming *inhuman*. *Cultural Geographies* Vol. 22-3, 383-407.
- Yusoff, Kathryn. 2016. Anthropogenesis: Origins and Endings in the Anthropocene. *Theory, Culture & Society*. Vol. 33, 3-28.