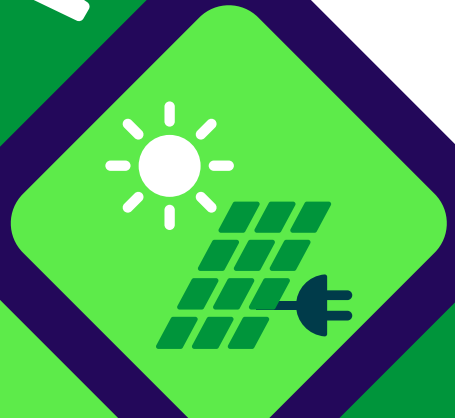


## Cultural Relations Collection

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# Empowering A World without Fossil Fuels – A Crisis of Culture

Sam McNeilly



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# Foreword

The rapid changes currently affecting the Earth's environment amount to arguably the biggest story in human history so far – one that will affect every person on the planet.

The way we tell that story, the language we use and the people we engage will determine our success in minimising and mitigating its effects.

There is little dispute that action to avert catastrophic global heating is essential. But action does not take place in a vacuum. It is the consequence of data, calculation, reflection and the way in which concerned humans communicate.

So cultural relations, the art and practice of international communication as expressed through national cultural assets, has a vital (though largely unexamined) role to play.

As one of the contributors to this collection sums it up: 'Climate change is a crisis of culture.'

The study of cultural relations in the context of climate change – and perhaps more importantly, as a spur to action – is a young field, but one that needs to grow up fast.

This volume of essays commissioned by the British Council is an attempt to survey some of the thinking in the field. We've done this in partnership with researchers from a range of academic backgrounds and disciplines. These new and exciting voices had a brief to provoke and challenge as well as to illuminate – and their essays do just that.

The result is an excellent primer to a variety of approaches from a broad spectrum of authors – and subject matter from 'cli-fi' novels to the meaning of the climate strike movement.

The narratives of myth, religion and history fulfil our need to make sense of the world and our place in it. We urgently need to discover new ways to communicate our present predicament, but I believe all the cultural tools we need for the task are at hand.

The climate emergency has made a single interest group of all people on Earth. So, as well as being a moment of crisis and challenge, the period we are living through has the potential to be a time of unity and common purpose. In that fact, I find great hope.

Advancing as one global community to solve a challenge that is simultaneously paralysing in its enormity and impossible to imagine in its ultimate consequences, has never been attempted before. But that shouldn't stop us trying. Nothing else has ever been so important.

**Kate Ewart-Biggs OBE**  
Interim Chief Executive, *British Council*

# The Climate Connection Cultural Relations Collection Special Edition

The following essays are part of a special edition of the Cultural Relations Collection and part of the Climate Connection. You can find out more about the Climate Connection at [www.britishcouncil.org/climate-connection](http://www.britishcouncil.org/climate-connection)

You can find this special edition and other essays in the Cultural Relations Collection on our website at [www.britishcouncil.org/research-policy-insight/research-series/cultural-relations](http://www.britishcouncil.org/research-policy-insight/research-series/cultural-relations)

An obtuse triangle: the nexus between digital skills, soft power and climate change mitigation in Georgia

*Jessica Gosling*

Emergencies, emergences, engagement: cultural relations and climate action

*Carlia Figueira and Aimee Fullman*

Empowering a world without fossil fuels: a crisis of culture

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Making sense of climate change in the digital age

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*Chloé Germaine Buckley and Benjamin Bowman*

Rethinking the unthinkable: what can educational engagements with culture offer the climate crisis?

*Charlotte Nussey*

# Introduction to The Climate Connection Cultural Relations Collection Special Edition

**Michael Mikulewicz** Glasgow Caledonian University  
**Neil JW Crawford** University of Leeds

Three years ago, the Intergovernmental Panel on Climate Change (IPCC), an international body that brings together the world's leading climate scientists, published what is commonly referred to as the 1.5°C Report, in which for the first time ever the authors set an implicit deadline for decisive climate action. The report recommended reducing global greenhouse gas (GHG) emissions by 45 per cent by the year 2030, or in other words limiting the warming of the atmosphere to 1.5°C compared to pre-industrial levels (IPCC, 2018). Beyond the 1.5°C threshold, report authors warned, lies a world marked by 'long-lasting and irreversible' risks for our ecosystems and societies alike (IPCC, p. 36). This unprecedented clarion call for action was the IPCC's attempt to underscore the seriousness of the global climate emergency and galvanise support for aggressive GHG emission reductions at the international and national levels.

Some climate activists have found hope, or at least a silver lining, in the global COVID-19 pandemic, suggesting that reduced economic activity would dramatically curtail carbon pollution (Balch, 2020). The year 2020 did see a decrease in that respect, but not by as much as was expected (Tollefson, 2021). And while calls for 'building back better' have grown in recent months, the general sentiment is that once the virus is brought under control, economic activity will rapidly rebound along with GHG emissions. Not only that, the virus is also said to have had negative effects on climate action. Travel restrictions caused by the pandemic have made it difficult for members of the global climate governance community (governments, NGOs, international organisations, business, etc.) and for activists to meet in person and work together towards more ambitious climate goals. The

postponement of COP26 in Glasgow to November 2021 is a case in point. Meanwhile, virtual meetings do not seem to be as effective as in-person gatherings (Evans & Gabbatiss, 2021).

That said, with or without a global pandemic grounding most flights and making face-to-face interactions impossible, the world's leaders have over the last three decades sought – with very mixed results – to build consensus around who should reduce their emissions, by how much, by when and at whose cost. In 2015, the Paris Agreement was hailed by some as a break to this impasse, though critics rushed to point out that the treaty had no punitive mechanisms and relied on voluntary contributions by states (called nationally determined contributions, or NDCs). Indeed, the world is currently on track to limit warming to about 2.4°C above pre-industrial levels, a far cry from the 1.5°C goal advocated by the IPCC and most environmental organisations, and that is based on national governments' pledges and targets rather than tangible progress (CAT, 2021).

It is clear that we need an unprecedented level of international co-operation to tackle the climate emergency. However, this co-operation can and should come in different iterations; effective collaboration of governments at the national level may not be sufficient to avoid the irreversible changes the IPCC warned of in the 1.5°C Report. What is needed is a global ethic of care and responsibility for the planet – a cultural change that would enable climate action in all facets of social life.

That is because climate change knows no borders and affects the world's cultures just as much as it affects our natural environments.

There is no single human or non-human on Earth that will be unaffected by the changing climate in one way or another. There is certainly some awareness that 'we're all in this together' among global leaders. After all, the Paris Agreement did away with categorising nations into those historically responsible for GHG emissions and the rest (Annex-I and non-Annex-I countries). Even the motto of the Sustainable Development Goals (SDGs) – 'leave no one behind' – has an unequivocally cosmopolitan ring to it.

That said, even though we may well all be in this together, we certainly are not equal. Different people will experience climate impacts based on where or who they are – seen from this perspective, climate change is a major socio-economic and political disruptor that can exacerbate global and local inequalities, deep as they already are. This is one of the main concerns of climate justice scholars and activists, who argue that, among other things, we need to refocus the climate debate and action towards those on its frontlines – historically marginalised communities and individuals, and countries that are disproportionately exposed or vulnerable to climate impacts despite having done little to cause it.

This is where the role of cultural relations becomes crucial. While there is no universally supported definition, cultural relations can be said to refer to 'interventions in foreign cultural arenas with the aim of enhancing intercultural dialogue and bringing about mutual benefits connected to security, stability and prosperity' (Gillespie et al., 2018, p. 5). Writing during the height of Cold War tensions, JM Mitchell (1986, p. 1) argued that cultural relations possessed great potential for fostering global stability and that 'alternative

forms of international relations' lay beyond traditional diplomacy. Three decades on from the end of the Cold War, the importance of cultural relations in managing and mitigating global issues is more important than ever. It is difficult to imagine developing a global ethic of planetary care without intercultural dialogue and shared environmental and social values among the world's powerful.

However, cultural relations involves a range of actors and institutions beyond just governments, which has always set it apart from cultural diplomacy (Mitchell, 1986, p. 2). Recently, cultural relations has been harnessed in relation to a range of different issues and fields of study. There has been a 'cultural turn' in international development (Singh, 2019), English language assessment has been approached through the lens of cultural relations (O'Sullivan & Patel, 2019), and the continuing global COVID-19 pandemic has raised debate as to the implications of a shift from physical to digital cultural relations (Kerr, 2021). Despite the noted need to consider the role of culture and creative approaches to addressing climate change (Gabrys & Yusoff, 2012), efforts to address the climate emergency have seldom been considered from the vantage of cultural relations.

These emerging perspectives suggest that cultural relations has the potential to foster mutual understanding, trust and co-operation in the field of climate action. Whether rooted in exchanging global citizens' lived experiences of climate change or promoting cross-cultural co-operation in raising climate awareness and ambitions, cultural relations offers many ways to positively contribute to our planet-wide struggle to contain climate change and its impacts. However, precisely because climate change is riddled with international and

sub-national inequalities in terms of who caused it and who will be affected by its impacts, cultural relations must remain an explicitly reciprocal activity between equal partners (Gillespie et al., 2018). Cultural relations is different in this regard from soft power or cultural diplomacy, the pursuit of which can be problematic, and accused of evincing neo-colonial undertones. A cultural relations approach that is guided by principles of trust, reciprocity and equity – an approach embodied by climate justice – can act as a vehicle for sharing knowledge and experiences of climate impacts and injustices.

The six essays to follow exemplify how this can be achieved and reflect on the role cultural relations has had in shaping climate change discourse, activism and praxis. We now turn to these insightful contributions.

## Overview of essays

In their essay on cultural relations and climate action, Carla Figueira and Aimee Fullman argue for the need to avoid distant, apocalyptic visions of climate change. Instead, they suggest telling ‘better stories’ about where we want to go and the sort of world we want to live in. They argue that cultural relations, and cultural relations organisations, can play a vital role in shaping this new framing of climate change. Figueira and Fullman discuss emerging ecosystems of care, bolstered since the start of the COVID-19 pandemic, and how a caring paradigm can be linked to cultural relations, with its focus on expanding shared knowledge, understanding and trust. Further, their essay argues that cultural engagement serves as a useful point of participation in climate action, focusing on the greening of cultural relations organisations, diversifying cultural engagement interventions, elevating programme evaluations and learning by

design. They argue that cultural relations is an underutilised resource in addressing the climate emergency, and cultural relations organisations have an important part to play.

Charlotte Nussey considers the ways in which educational engagement with cultural relations offers lessons for the climate emergency, including new ideas and ways of talking and listening. Like other essays in the collection, Nussey argues that the climate emergency cannot be addressed by technical responses and innovations alone, but requires a socio-cultural response, inclusive of culture and education. The essay suggests three important connections and shifts in knowledge that are needed in (higher) education relating to the climate emergency. These are:

1. the need to break down hierarchies of knowledge and ways of knowing
2. the need to create deeper, transformative and non-extractive relationships between higher education institutions globally
3. new links between higher education institutions and the societies they are part of, ensuring that the former learn from the latter.

To better make these connections, Nussey proposes four interconnected mechanisms, drawing on intercultural engagement: art as anticipatory memory, language matters, protest as pedagogy and just participation. The essay spotlights the work of the Transforming Universities for a Changing Climate (Climate U) project, which shows the important ways that higher education institutions in the Global South contribute to tackling the causes and impacts of climate change. This example highlights the important intersections that are taking place between activism and scholarship, and touch on culture, education and climate justice.



Chloé Germaine Buckley and Benjamin Bowman discuss the School Strike for Climate, the global movement initiated by Greta Thunberg in August 2018. Rather than consider the strikes as a protest movement for a large-scale shift in climate policy, they suggest viewing them as a form of global cultural exchange. They highlight the role of three themes to make this case:

1. the role of young people's positionalities in building relationships and global solidarities
2. young people's repertoire beyond attempting to shift climate policy into wider civic activity such as intergenerational care or mental health support
3. the functioning of the strikes as a polyphonic 'text' that invites dialogue, incorporating a multitude of voices in a variety of forms.

In their essay, Buckley and Bowman interpret the efforts of young people not only as a protest against the world as it is today, but as a process that envisions the world as it could be, with all the struggles that come with bringing this view into being. The authors draw on a range of materials produced by young people, from informal protest signs to songs.

Sam McNeilly argues that climate change cannot be overcome by technological developments or engineering advances alone, because it is in fact a crisis of culture. McNeilly addresses the relative failure of communicating climate change and roots his work in the 'energy humanities' – an emergent field of scholarship concerned with the impact of the dominant forms of energy on a given society. He argues that effectively communicating the climate emergency requires increased attention to what drives it: the culture of fossil fuels. McNeilly argues

against a simple replacement of fossil fuels with renewables, in favour of an ethical energy transition that involves also understanding and transforming existing cultural practices. Cultural relations can serve to ensure justice is central to shifts away from fossil fuels, and in making this point, McNeilly draws on a variety of cultural outputs, including American naturalist novels, the diary of environmental activist Ken Saro-Wiwa, and the photography and documentary work of Edward Burtynsky. As a post-fossil fuel world still exists in the realm of the imaginary, McNeilly posits that cultural and artistic forms offer opportunities to imagine routes to a just transition and a different kind of world.

In her essay on climate knowledge in the digital age, Nina Schuller invites the reader into the world of the web. As she argues, new communication technologies may be a double-edged sword – stretching outwards and bringing people closer together or being used as a vehicle for promoting certain interpretations and imaginings of the world over others. Schuller explains how digital encyclopaedic knowledge is created and moderated, using Wikipedia as a case study. She notes how our knowledge of climate change is subjected to the politics of translation on the web, with certain interests holding more influence by virtue of digital access and colonial legacies. In this context, Schuller discusses how non-Western knowledges often give way to Eurocentric epistemologies, despite some efforts by media giants like Google and Wikimedia itself to rectify this inequity. The politics of climate knowledge production on the web (and the cultural relations embedded in and shaping this process), Schuller argues, have important implications for global climate action. If generated in a top-down manner, climate knowledges and discourses can contribute to

'disinterest, disengagement and disaffection' at the local level, complicating our prospects for mitigating and adapting to the impacts of climate change.

In her essay, Jessica Gosling discusses the 'obtuse triangle' of unusual suspects: climate change mitigation, soft power and digital skills, using the nation of Georgia as a case study. She argues that digital skills, which she sees as 'vital instruments of soft power', are of crucial importance for building a low-carbon economy and prosperity in the south Caucasian country. Gosling argues that given that climate change is a global emergency, the exchange of information and technology between different cultures and regions of the world becomes crucial for climate mitigation. More specifically, she notes that combatting climate change will require solutions and connectivity afforded by digital and entrepreneurial skills which may not be sufficiently funded and developed in some regions of the world. A related concern here is the unequal access to digital education which limits opportunities for some people to effectively participate in the rapidly digitalising economy and benefit from the wealth that it generates, not to mention being able to engage in discussions on desirable climate change mitigation strategies. Gosling discusses these linkages based on interviews conducted with Georgian experts with regard to the creative industry in the country.

Taken together, the authors of the essays in this collection demonstrate how cultural relations can contribute to the goal of more equitable, intercultural climate action. They offer insights into diverse facets of society, economy and culture and how they can be mobilised for our common good. Our contributors represent different career stages – PhD students, postdoctoral researchers, lecturers and professionals – and different academic and professional disciplines, embodying the diversity of perspectives needed to combat the climate emergency, and do so before the deadline set by the scientists at IPCC.

# References

CAT (Climate Action Tracker) (2021) Temperatures. Climate Action Tracker. Available online at: [climateactiontracker.org/global/temperatures](https://climateactiontracker.org/global/temperatures)

Balch, O (2020) CSR Cheat Sheet: 8% drop in emissions 'silver lining' amid brutal human toll of Covid-19. Reuters Events. Available online at: [www.reutersevents.com/sustainability/csr-cheat-sheet-8-drop-emissions-silver-lining-amid-brutal-human-toll-covid-19](https://www.reutersevents.com/sustainability/csr-cheat-sheet-8-drop-emissions-silver-lining-amid-brutal-human-toll-covid-19)

Evans, S & Gabbatiss, J (2021) UN climate talks: Key outcomes from the June 2021 virtual conference. CarbonBrief. Available online at: [www.carbonbrief.org/un-climate-talks-key-outcomes-from-the-june-2021-virtual-conference](https://www.carbonbrief.org/un-climate-talks-key-outcomes-from-the-june-2021-virtual-conference)

Gabrys, J & Yusoff, K (2012) Arts, Sciences and Climate Change: Practices and Politics at the Threshold. *Science as Culture* 21/1: pp. 1–24.

Gillespie, M, O'Loughlin, B, Nieto McAvoy, E & Berneaud-Kötz, M (2018) *Cultural Value: Cultural Relations in Societies in Transition: A Literature Review*. Munich and London: Goethe-Institut and British Council.

IPCC (2018) *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [V Masson-Delmotte, P Zhai, H-O Pörtner, D Roberts, J Skea, PR Shukla, A Pirani, W Moufouma-Okia, C Péan, R Pidcock, S Connors, JBR Matthews, Y Chen, X Zhou, MI Gomis, E Lonnoy, T Maycock, M Tignor & T Waterfield (eds)].

Kerr, GW (2021) *FameLab, cultural relations and 'going virtual' at the time of a pandemic*. London: British Council.

Mitchell, JM (1986) *International Cultural Relations*. Abingdon: Routledge.

O'Sullivan, B & Patel, M (2019) *English Language Assessment as Cultural Relations*. London: British Council.

Singh, JP (2019) *The Cultural Turn in International Development: Participatory Infrastructures and Value in the Arts*. London: British Council.

Tollefson, J (2021) COVID curbed carbon emissions in 2020—But not by much. *Nature* 589/7,842: pp. 343–343. Available online at: [doi.org/10.1038/d41586-021-00090-3](https://doi.org/10.1038/d41586-021-00090-3)

# Empowering a world without fossil fuels: a crisis of culture

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Following the UN Climate Summit of 2019 – to which Greta Thunberg's journey aboard a racing yacht generated considerable media attention – a meme circulated widely on social media which pitted the Swedish environmental activist against the similarly young Dutch inventor and entrepreneur Boyan Slat, CEO of The Ocean Cleanup. Next to an image of each sit descriptions which attempt to compare and evaluate the efficacy of their approaches to climate change.

*Greta Thunberg is a 16-year-old Swedish environmental activist who shares her anger, frustration and anxiety about the climate with the world. She is neither a scientist nor an economist. She offers no practical solutions to the economic devastation her ideas would cause. Admirable passion. Wrong thesis. Media star. Google Search: 176 million results.*

*Boyan Slat is a 23-year-old inventor who designed the world's first ocean plastic cleanup system at age 16. He now leads a group developing advanced technologies to rid the world's oceans of plastic. His solution involves no economic destruction. Admirable passion. Right thesis. Media: not interested. Google Search: 270,000 results.*

Perhaps this meme has little significance in the broad debate over responses to climate change, and its misogynistic framing of Greta Thunberg through the 'hysterical woman' trope is enough to consign it to the bin of irrelevancy. Yet, its assertion that Greta's 'impractical' approach receives unjustified levels of attention offers a concise example of a crucial misunderstanding of the impediments to combatting climate change effectively.

Since the formalisation of the concept of climate change in the 1970s, we have seen more than 30 major climate conferences and half a dozen international climate agreements, none of which has managed to effect sufficient change. So, although innovations from the Boyan Slat of the world are invaluable in tackling global environmental issues, effectively addressing climate change requires more than technoscientific solutions. The Greta Thunbergs of the world pursue perhaps the most pressing practical problem pervading our response to climate change: forcing international action from reluctant world leaders. The urgent need for substantial action from world leaders at this November's COP26 shows that climate change is not an issue which we can gradually engineer our way out of through technological developments alone. Climate change is a crisis of culture.

One of the major cultural issues we face in this crisis is communication. The arts and humanities are therefore a uniquely positioned and often overlooked resource in our collective response to climate change. Environmentally focused artists and academics, however, are painfully aware that climate change poses significant communicative challenges. To offer a brief example, in the past two decades many ecocritics (academics who study the relationship between literature and environment) have agreed that, although some novelists have produced sophisticated depictions of climate change, its complexity – particularly the enormity of its spatial and temporal scales – vastly exceeds novelistic framing. Indeed, for literary depictions of climate change, a representation of crisis often reveals a crisis of representation. If climate change easily exhausts one of our

most capacious and imaginative forms of communication, how effective can more popular forms be for building a truly collective response? This essay engages with critical insights from the 'energy humanities' – an emerging branch of scholarship which examines how uses of energy sources shape social relations and cultural practices – to argue that effective communication of climate change requires greater emphasis on a specific driving force: the cultures of fossil fuels.

The industrial history of fossil fuels is a familiar story. James Watt's steam engine allowed coal to generate unprecedented levels of productivity through the 19th century. Then, Edwin Drake's first commercial extraction of oil in 1859 ignited a seemingly unquenchable desire for fossil fuels that seeped across the spectrum of global industrial practices in the 20th century. Productivity may have rocketed through fossil fuels, but a catastrophic contradiction has marked industrial development. Consistently rising levels of GDP signify that fossil fuels have allowed industry to create colossal levels of commercial value, yet here lies the contradiction: the production of this value undermines that which produces it. Extensive consumption of fossil fuels causes such immense destruction to the ecosystems which sustain all of us that our very existence is now under threat. In other words, global industries have been sawing off the branch on which we are all sat, yet even after realising, they keep sawing.

So why are we yet to make significant steps toward a world without coal, oil and gas? The technological challenges of energy transition are undoubtedly complex, but an equally complex – and often overlooked – aspect of transition involves weening our cultures off

the intoxicating fumes of fossil fuels. Our primary energy sources have shaped global cultures in fundamental ways. The entanglement between cultural practices and fossil fuels triggered an exponential and roughly simultaneous growth across a wide range of human activities: populations, production, GDP, trade, travel, resource extraction and, crucially, carbon emissions. For many commentators (Steven Pinker being a prominent example), this period of rapid growth since the 1940s – known as the 'Great Acceleration' – provides proof of ubiquitous progress. The progress associated with the Great Acceleration, however, is rife with paradoxes. The growth of fossil-fuelled processes such as urbanisation, technological innovation, global transport infrastructures and mass consumerism is often used to support the grand narrative of Western progress, yet each of these processes has its inverse: conspicuous destitution, mass exploitation, environmental degradation and the myth of individualism which has deteriorated social relations to the extent that constructing a collective response to climate change sometimes appears an insurmountable challenge.

Inevitably, such sweeping cultural changes have also shaped the essential characteristics of everyday life. Fossil fuels saturate the fabric of modern social experience. Their energetic capacities provide us with the very fundamentals of living: movement, work and subsistence. In wealthy countries like Britain, citizens expect to be able to drive around the country; to fly to international locations for holidays, work and to visit friends and family; and to instantly purchase desired foods and other commodities from global trade networks. Modern beliefs, desires and expectations for mobility, autonomy and social

freedom are predicated on access to cheap, powerful energy sources. Fossil fuels not only power engines: they power culture also. Even our individual identities are soaked in fossil fuels. Many of us, particularly in the West, define ourselves through the consumer choices we make from a seemingly constant supply of commodities which rely on fossil fuels for their production and distribution. As Szeman and Boyer declare: 'We are citizens and subjects of fossil fuels through and through, whether we know it or not' (2017, p.1). Indeed, the modern subject and state, and even much of modernity itself, would not be possible without the productive power of fossil fuels.

Both within and between nations, however, people experience the material advantages and ideological developments of fossil fuel culture dramatically unevenly. Through processes of global extraction, fossil fuel modernity is built on – and continues – legacies of exploitation, dispossession and domination. For this reason, an ethical energy transition will require more than inserting wind turbines and other renewable inputs into existing infrastructures: we will need to understand and transform our cultural practices also. The role of cultural relations in this project cannot be understated. Collectively, we consciously face a transition away from fossil fuels. This project presents to us an unprecedented opportunity to understand and ameliorate the disparate relations to energy which have shaped global cultures. Through engagement with insights from the energy humanities, cultural relations – particularly in work across environmentalism, the arts, education, youth organisations, human rights and empowerment – can foster deeper relationships with individuals, communities and institutions that understand

the need to place justice at the heart of the international transition away from fossil fuels. By discussing critical insights from the energy humanities, the rest of this essay will examine the role of the arts and humanities in understanding the past and present cultures of fossil fuels, and how this understanding can guide cultural relations in our future relationships with energy. A successful energy transition will require an ethical cultural transition.

## Extracting the cultural histories of fossil fuels

To end our entanglement with fossil fuels, we first must understand how it began. For cultural relations to play a vital role in global energy transition, there needs to be a recognition of the ways in which narratives of fossil fuel progress historically have enabled economic exploitation, dispossession and cultural domination. Understanding these processes can help to explain contemporary reluctance to engage with demands for radical, ethical energy transition. To be effective, this consideration must examine the historical emergence of fossil fuel cultures by listening to those who still struggle with their complex legacies. In the energy humanities, these principles guide analyses of the history of fossil fuels through considerations of questions such as:

- How did fossil fuel cultures emerge?
- Why have different groups experienced it so unevenly?
- In what ways can the arts and humanities narrate this history to illuminate our current crisis?

In this section, I will provide a brief overview of insights from work in the energy humanities that explore such questions.

For most of the relatively short period of human civilisations, cultures have harnessed an assortment of 'living bodies' for their energetic needs, primarily human and animal muscle power and the flowing water and wind from living landscapes. The energetic practices of Western society changed dramatically during the Industrial Revolution, when rapidly growing industries transitioned from these 'living bodies' to the 'dead bodies' of fossilised plants and animals. In his book *Energy and Civilization: A History* (2018), energy historian Vaclav Smil gives an informative overview of the origins of our entanglement with fossil fuels. Much of the coal mined over the past two centuries consists of fossilised swamp plants from the Carboniferous period about 300 million years ago, while much of the world's oil and natural gas is derived mostly from marine plants and animals from the Mesozoic Era about 100 million years ago. For hundreds of millions of years, then, these potent sources of energy formed and lay buried beneath the Earth's surface. Smil identifies the first cultural encounters with fossil fuels occurring approximately 5,000 years ago, when early agricultural civilisations made use of small amounts which seeped above ground. The extensive utilisation of their potency only began 200 years ago, at the tail end of industrialisation.

As mentioned, the predominant explanation for the transition to fossil fuels holds that James Watt's invention of the steam engine unlocked coal's powerful capacities which, in turn, fed the natural human hunger for greater amounts of energy. In *Fossil Capital: The Rise*

of Steam Power and the Roots of Global Warming (2016), Andreas Malm takes issue with this consensus. Malm's illuminating study identifies a crucial flaw in the prevailing narrative: during the initial stages of the transition, coal-powered machinery was neither more affordable nor, crucially, productively superior. Malm meticulously examines British industrial records to show that water power in fact offered a cheaper and more productive alternative to urban factories.

So what triggered the transition? Malm argues that, despite its higher costs and inferior efficiency, steam power enabled alternative relations of power which provided industrialists with greater control over their practices. As Malm succinctly puts it: 'Steam won because it augmented the power of some over others' (2016, p. 267). To make use of water power, industries had to be situated alongside powerful waterways, and its seasonal variability necessitated that factory owners and public institutions co-operate. These mainly rural sites required static labour colonies, for whose lodgings, food and health owners were responsible. In contrast, coal's mobility allowed owners to locate factories anywhere. This effected a foundational transformation. Industrialists – propelled by the individualist drive to accumulate – could construct enormous factories in urban centres from which they had access to large pools of expendable labour, for whom they had no responsibility of care.

The transition occurred, Malm contends, because coal offered greater control over human power rather than greater capacities of productive power. Of course, coal did not ignite the drive to accumulate, but its industrial applications certainly accelerated the extension of individualist profit making

across social, economic and political spheres. As Timothy Mitchell observes in *Carbon Democracy: Political Power in the Age of Oil* (2013), the transition from coal to oil followed a similar path, as the desire to suppress the demands of organised coal miners guided the turn to oil. While the industrial adoption of fossil fuels clearly brought extraordinary levels of productivity, it also changed the ways that people worked, lived and interacted with each other.

We know the disastrous consequences which the transition had for ecosystems, but less discussed are the ways in which fossil fuels reshaped our cultural practices and our individual identities. In the energy humanities, a growing body of work investigates the entwined histories of energy and culture through analyses of aesthetic developments. Szeman and Boyer (2017, p. 427) assert that:

*Cultural and aesthetic expressions are deeply marked by the shape and character of the energy systems that gave birth to them. [...] Making energy a key element of our analytic framework would give us a better understanding of the cultural transitions that have accompanied energy transition [...] It might also offer us a sense of cultural shifts that could aid in our move away from the fossil fuel era.*

Literary studies has proven a particularly fertile field of inquiry for energy-focused aesthetic analysis, in which Patricia Yaeger's essay 'Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources' (2011) serves as one of the most influential contributions. 'Instead of divvying up literary works into hundred-year intervals', Yaeger ponders, 'or categories harnessing the history of ideas (Romanticism,

Enlightenment), what happens if we sort texts according to the energy sources that made them possible? [...] What happens if we rechart literary periods and make energy sources a matter of urgency to literary criticism?' (2011, pp. 305–306).

My own research builds on Yaeger's suggestion by looking at the relationship between the USA's transition to fossil fuels and the development of the American naturalist novel. American naturalism emerged during the early stages of the USA's transition at the end of the 19th century, and its practitioners include John Steinbeck, Edith Wharton and Richard Wright. Leading literary critic Fredric Jameson observes that naturalism's narrative paradigm is defined by 'something like an entropy on the level of the individual destiny' (2015, p. 149). My thesis argues that this dramatisation of entropy – a concept which arose directly out of thermodynamic investigations into fossil fuels' industrial productivity – identifies one such way that the transition to fossil fuels restructured cultural forms and understandings of the self. American naturalist novels depict how fossil capital and what Dominic Boyer terms 'energopolitics' – a political rationality that, since the transition, has governed a world based around fossil fuel technologies through a vocabulary of work and waste – rendered unproductive individuals, groups and ecosystems as entropic (read: disposable) elements in the national project of work. The transition to fossil fuels altered the ways that we tell stories because it reshaped our environments, cultural practices and, ultimately, understandings of our own identities. For the work of cultural relations, academic studies into the past of fossil fuels reveal how energy transitions trigger cultural transitions.



The developments of fossil fuel technologies brought many cultural changes, from international networks of travel and trade to the flood of commodities which plastics – a material derived from the refining process of oil – have made possible. Everyday experiences and expectations, particularly in Western countries, now revolve around fossil fuel-based conveniences and luxuries. Subsequently, the insatiable consumer appetites of citizens of wealthy countries like Britain come at tremendous social and ecological costs. Yet, many of these costs remain invisible to those enjoying fossil fuel prosperity. Transnational corporations externalise them abroad, mostly in the ecosystems and societies of the Global South.

In the more recent past, countless artists have exhibited the potency of creative expression in resistance to destructive fossil fuel-driven avarice. Nigerian environmental activist Ken Saro-Wiwa's work offers one such example that is both inspiring and ominous. Through the 80s and early 90s, Saro-Wiwa shed light on the social and ecological costs to the Niger Delta of the neocolonial practices born out of an alliance between unanswerable corporations and ethnocentric regimes. From the late 50s, this alliance has submitted the Niger Delta – an area of similar size to England populated by dozens of culturally distinct communities – to extractivist logics. Corporations privatise land in the delta from which they extract enormous quantities of oil for the cheap consumption of privileged consumers elsewhere. Their unregulated practices have generated colossal profits, very little of which went to the people who reside above the valuable resource. As Michael Watts (2008) shows, after decades of oil extraction totalling \$600 billion of revenues, 90 million Nigerians had to survive on less than a dollar a day.

Although the social and ecological consequences cannot be quantified as easily, they tell a horrifying story. Regular oil spills poisoned croplands and drinking and fishing waters, while the interminable flaring of natural gas polluted the air and created an artificial, never ending day (notably, oil companies' operations were not so destructive in majority-white countries). Today, toxic substances continue to seep into the bodies of the land and people, causing wide-ranging illnesses and conflict over scarce resources. In the face of this, corporations issued public relations primers – 'Nigeria and Shell: Partners in Progress' (1995, p. 165) – that sought to conceal the social and environmental costs of wealthy countries' access to cheap fuel beneath the intoxicating narrative of 'progress'.

In response, Saro-Wiwa's politically engaged writing – particularly the posthumously published *A Month and a Day: A Detention Diary* (1995) – offered an instrumental aesthetics that made direct calls for environmental justice. Saro-Wiwa's creative expression helped to build effective activism that resisted and exposed the impunity of transnational corporations whose extractivist practices inflict social and environmental misery in poorer nations across the world, from Brazil and Bolivia, through Angola and Algeria, to Iran and Iraq. For cultural relations, the work of activists such as Saro-Wiwa demonstrates that environmentalism cannot be limited to replacing internal combustion engines with lithium-ion batteries. The experiences of those (disproportionately people of colour, indigenous communities, women, LGBTQ+ people and working classes throughout the world) who bear the brunt of extractivist practices that externalise the consequences of modern conveniences and luxuries must be foregrounded. Saro-Wiwa's activism presents

one example among many of the fact that achieving environmental justice entails dismantling racial, gendered, cultural and economic structures of domination, and that creative expression can play a central role in these projects. In 1995, General Sani Abacha, Nigeria's military leader, used trumped-up charges of murder to order the execution of Saro-Wiwa and eight other activists who opposed Shell's practices. Shortly before he was hanged in Port Harcourt, Saro-Wiwa declared:

*The men who ordained and supervised this show of shame, this tragic charade, are frightened by the word, the power of ideas, the power of the pen [...] They are so scared of the word that they do not read. And that will be their funeral.*

Saro-Wiwa, cited in Nixon (2013, p. 104)

The arts and humanities – for so long sidelined in discussions on how to combat climate change – offer the work of cultural relations powerful analytic and expressive capacities for placing justice at the heart of energy transition. As critical insights into the histories of energy and culture present, climate change is not an apocalyptic aberration in the narrative of progress, but is rather an intensification of the social and environmental dispossession, domination and destruction that constitute fossil fuel modernity. In conjunction with environmental and artistic networks, cultural relations projects should nurture and promote artwork and insights from those who live with the legacies of extractivism. Such an approach can help to prevent international projects related to renewable energy infrastructures from perpetuating these practices for future generations.

## Overcoming impasse

Famously, fossil fuels make things move. Why then, with our knowledge of the social and environmental harm that they cause, are we so stuck with them? One obvious reason, which authors and journalists such as Naomi Klein and George Monbiot excellently challenge, is the combined power of fossil fuel corporations and the complicity of political and economic institutions that benefit from the enormous profits and influence of extractivism. Despite attempts to greenwash their practices through environmental initiatives such as reforestation, increasing corporate investments into oil and gas exploration are clearly a leading cause of energy impasse. But the issue is more complex. As fossil fuels shape our beliefs, desires and everyday practices, overcoming impasse will require us to consider the central role that these energy sources play in our lives and cultures, and how life without them necessitates new ways of being. The issue of impasse dominates analyses in the energy humanities, and its causes must become more apparent to the work of cultural relations in energy transition.

Alongside political and economic reasons, our state of impasse arises out of representational issues that inhibit a more comprehensive understanding of our relationship with fossil fuels. They have an 'invisible ubiquity' in our everyday lives: despite being everywhere, we often fail to notice how much we rely on them. Szeman and Boyer describe that '[f]ossil fuels in particular have been surprisingly hard to figure – narratively, visually, conceptually – as a central element of the modern' (2017, p. 6). This issue makes transition tricky, for if we struggle to illustrate their ubiquity, we will continue to struggle to find routes to a low-carbon world. As problems with

representation contribute to the current impasse, aesthetic analyses also offer invaluable – yet still underappreciated – insights to calls for immediate transition.

Amitav Ghosh's 'Petrofiction: The Oil Encounter and the Novel' (1992) is a foundational essay in the energy humanities. In it, Ghosh critically examines the aesthetic challenges that literary fiction faces in depicting what he terms the 'Oil Encounter': the transformation of global cultures through struggles over, and increased consumption of, oil. Through a review of Abdul Rahman Munif's *Cities of Salt* quintet, Ghosh questions oil's conspicuous absence from literary fiction. After considering the geopolitical and cultural reverberations of the rise of oil, Ghosh wonders, 'So why, when there is so much to write about, has this encounter proved so imaginatively sterile?' (2017, p. 431). Ghosh contends that 'the difficulties that the experience of oil represents for the novelistic imagination' (2017, p. 440) are a result of the novel's formal limitations:

*The territory of oil is bafflingly multilingual [...] while the novel [...] is most at home within monolingual speech communities (within nation-states, in other words). Equally, the novel is never more comfortable than when it is luxuriating in a 'sense of place,' [...] But the experiences associated with oil are lived out within a space that is no space at all, a world that is intrinsically displaced, heterogenous, and international. It is a world that poses a radical challenge not merely to the practice of writing as we know it but to much of modern culture.*

Ghosh (2017, p. 433)

Both directly and indirectly, many critics in the energy humanities have engaged with the issues which Ghosh raises.

In her previously discussed essay, Patricia Yaeger suggests that oil's literary absence might be one aspect of wider invisibilities in literary texts which point to an 'energy unconscious'. Yaeger, borrowing from Fredric Jameson's *The Political Unconscious* (1981), suggests that literary scholars need to draw to the surface the energy unconscious of texts so as to uncover the cultural formations of predominant energy sources, and the ways in which they go largely unstated.

Although considering the wider issues of climate change, Rob Nixon's *Slow Violence and the Environmentalism of the Poor* (2011) also highlights representational issues of an aspect of extensive fossil fuel use. 'Violence is customarily received as an event or action that is immediate in time, explosive and spectacular in space, and as erupting into instant sensational visibility' (2011, p. 2), Nixon writes, but he identifies another type of violence which fossil fuels cause. He names this slow violence. It is 'a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all' (2011, p. 2). Through the medium of ecosystems, fossil fuels – whether through global warming or the toxic effects of oil spills – inflict this form of violence on (mostly poorer) communities. How can we convert events that occur incrementally into narratives that catch our attention? Much of the violence of fossil fuels plays out at paces that are too gradual for our traditional forms of storytelling, let alone the rapid pace of our media cycles. Nixon's concept of slow violence demonstrates just

one of the challenges which artists and the work of cultural relations face in communicating to the wider public the urgent need for political intervention in our current state of impasse.

To address the issue of impasse, the role of energy-focused critics is not simply to point out fossil fuel content – industrial pollution, pipelines, cars and the like – but to foreground the social relations and cultural practices that have formed around the infrastructure. Through discussions of oil's aesthetic, sensory and emotional legacies, Stephanie LeMenager's *Living Oil: Petroleum Culture in the American Century* (2014) exemplifies the potential of such an approach. LeMenager shows how oil came to dominate 20th-century aesthetics: oil not only supplied cultural forms such as literary texts, films and photography with thematic concerns (conscious or unconscious) but, through film stock, ink and digital processing, it also made modern media possible by providing its material basis. LeMenager's focus extends across a wide range of cultural forms and artifacts – from museum exhibits to hamburgers and aspirin tablets – to assert that oil's permeation of everyday life has led us to 'experience ourselves [...] every day in oil, living with oil, breathing it and registering it with our senses' (LeMenager, 2014, p. 6). Furthermore, LeMenager presents the notion of 'petromelancholia', which describes 'the grieving of conventional oil resources and the pleasures they sustained' (2014, p. 102). Instead of inducing a powerful desire for action, this emotional response to the growing realisation that we must transition away from fossil fuels perhaps contributes to our impasse. Petromelancholia is infused with deep anxiety, for the overwhelming task of creating alternatives to the everyday

experiences on which we depend for many of life's pleasures can lead to a sense of paralysis.

Of course, making the sociocultural aspects of fossil fuel use visible is not limited to academic insights. In our digital world, the visual arts offer forms of expression that often circulate more easily than the written word, and they can distill complex ideas, emotions and experiences that evoke powerful responses from large audiences. Edward Burtynsky's work exhibits the abilities of visual arts in communicating the global significance of fossil fuels for human societies. The documentary *Manufactured Landscapes* (2006) follows Burtynsky through an assortment of landscapes that large-scale human activities have altered dramatically. The film features striking images which call attention to the aesthetic, social and environmental impacts of fossil-fuelled industrial globalisation.

Burtynsky's photo-essay *Oil* (2009) directly chronicles the international production, distribution and consumption of oil. The series subtly captures the effects of oil on human and nonhuman lives and environments, and many of its images have been shared widely on social media. One photograph entitled 'Breezewood' has proven particularly popular online for its exemplary distillation of American fossil fuel culture. The image captures the cramped space of a strip mall into which a patchwork of petrol stations and fast-food franchises are compressed. Burtynsky's vantage point causes petrol stations and fast-food outlets to bleed into one another, signifying how the desire for consumption has conquered American landscapes. Social media users have turned the image into a variety of memes, a popular example of which captions the photo 'Every

Small Town Off the Highway in the U.S. Ever'. In a single image, 'Breezewood' communicates how fossil fuel-powered cars and conveniences have homogenised American culture. It also points toward the decline in cultural diversity throughout the world, for globalisation has meant that the corporate logos which populate the picture are familiar internationally. Moreover, the lack of discernible people in the image also speaks of how such an environment shackles any sense of community. The drive-throughs and absence of pavements mean that each individual or family need not – indeed, cannot – leave the tightly sealed interiors of the cars and trucks for which the cultural landscape has been designed. Burtynsky's image cleverly conveys the complex relationship between fossil fuels, culture, globalisation and the rampant sense of individualism which drives climate change and impedes transition.

Performance arts also have proven to be an effective visual tool in rendering visible the social and cultural effects of fossil fuels, particularly in activism that directly resists the influence of multinational oil corporations. Campaigning groups such as Culture Unstained, Art Not Oil, and BP or not BP? have staged eye-catching performances that aim to bring attention to financial partnerships between cultural institutions and fossil fuel companies that maintain our current state of impasse. In February 2020, activists from BP or not BP? wheeled a 13-foot Trojan horse into the grounds of the British Museum to protest the institution's sponsorship deal with oil corporation BP. Images of activists dressed as warriors stood in front of the horse and the famous entrance to the museum were shared on social media platforms, sparking a discussion about fossil fuel companies' attempts to conceal their environmentally

destructive practices through associations with leading cultural institutions. As seen in Burtynsky's 'Breezewood' and performative protests, the visual arts can skillfully foreground fossil fuels' culturally transformative force – and, crucially, the ways in which we have become so stuck with them – in lively discussions outside of the more limited reach of academic contexts.

There are two main lessons to draw for the work of cultural relations across the arts, education and particularly with youth organisations. First, energy-focused academic research in the humanities can uncover the deep roots of our current state of impasse. The work of LeMenager, Ghosh and others can assist co-operative projects in the arts and international development that seek to communicate and work towards an immediate transition to a low-carbon future. Academic research in the energy humanities highlights that fossil fuels are concealed in our everyday lives. Our reliance on them for many of life's pleasures and conveniences has made transition tremendously difficult.

Second, if we are to collectively realise the urgent necessity for extensive transition (which, to avert global catastrophe, we must), then critical insights into our cultural entanglements with fossil fuels must be communicated accessibly. Social media, despite its many flaws, is capable of bringing people together in the real world under a common cause. Burtynsky's visual art and the performative protests are only two examples from a vast array of expressive forms that can grab people's attention, spark significant discussions and build international understandings of – and demands for – the cultural changes necessary for a sustainable energy future. As the Petrocultures Research

Group notes, ‘an impasse is not a blockage; it is a condition of possibility for action within a situation that is suddenly open because it is uncertain. Impasse is, in other words, a moment for aspiration and courage’ (2016, p. 16). Through the mutual exchange of ideas and knowledge, the British Council’s cultural relations can nurture forms of expression, education and communication that allow us to overcome impasse.

## A future free from fossil fuels

We know that our future needs to be free from fossil fuels. Currently, discussions of energy transition are dominated by a sense that, once renewable inputs such as solar, tidal and wind power can generate enough energy to fuel our societies, our relationship with fossil fuels will be resigned to the past. Changes to social relations, values and cultural practices – most notably, extractivism – are, at best, on the margins of discussions on energy transition. As we have seen, however, energy transition is not simply a technical problem. It is a social challenge. Alongside technological developments, achieving a just and democratic transition will require us to imagine and to build a society after fossil fuels. The process of energy transition presents us with a tremendous opportunity to discuss broad social, economic, political and ecological changes. Through exchanges in arts, education and human rights, the work of cultural relations can contribute to this urgent project by nurturing collective imaginaries through artistic expression; building educational networks that teach people about the connections between culture, energy and the environment; and ensuring that our new relationship with energy has justice at its core.

At present, a post-fossil fuel society resides very much within the realm of imagination. Artistic forms, therefore, possess unique capacities for envisioning potential routes to transition. In response to entwined climate and energy crises, discussions of imagined energy futures tend to fall into what Szeman (2007) identifies as three dominant narrative paradigms:

1. strategic realism, which largely ignores environmental disaster for the geopolitical machinations that will arise from transition’s uncertainties
2. techno-utopianism, which hopes that a technological silver bullet will save us from disaster
3. eco-apocalypse, which offers cautionary tales about social and ecological catastrophe but suggests little in the way of how we will avoid it.

Despite their limitations, these conflicting national, technological and apocalyptic speculations show us how the bridges to energy futures are built on narrative foundations. The Petrocultures Research Group recognises that our current struggle ‘over the direction of energy transition, which involves scientists, activists, governments, and businesspeople, is a struggle over representation and narrative, the stories we tell about human capacity and future possibility’ (2016, p. 72). In her book *Imagining the Future of Climate Change: World-Making Through Science Fiction and Activism* (2017), Shelley Streeby convincingly argues that speculative fictions will play a critical role in this struggle. Streeby ‘tell[s] the story of imagining the future of climate change by focusing especially on [...] speculative fictions,

and futurisms of Indigenous people and people of colour' (2017, p. 4) and the ways in which these directly inform 'networked local strategies, direct actions, and collective envisionings of the future' (2017, p. 126). In her discussion of the Dakota Access Pipeline protests of 2016, Streeby highlights the role of speculative fictions in immediate resistance to the global fossil fuel economy. The Dakota Access Pipeline protests drew attention to an international pattern through which corporations extract resources from privatised, racialised spaces with little social or environmental regulations from governments. Streeby shows how speculative fictions which emerge around these protests can 'connect people who are widely separated geographically but bound together in confronting common antagonists and sharing common goals' (2017, p. 44). By promoting narratives and other speculative forms from those on the frontiers of extraction, the work of cultural relations can help to raise awareness for necessary fundamental changes to the social relations built around energy sources.

Justice is not inherent to a transition to renewable energy. It needs to be won. Cymene Howe and Dominic Boyer's duograph *Wind and Power in the Anthropocene* (2019) examines the political, social and ecological dimensions of a transition from fossil fuels to wind power. From 2009 to 2013, Howe and Boyer conducted fieldwork in and around Mexico's Isthmus of Tehuantepec, a thin strip of land considered one of the best locations for terrestrial wind power on the planet. During Felipe Calderón's presidency (2006–12), the Mexican government passed ambitious legislation that aimed for a substantial transition to renewable energy over the coming decades, a large portion of which

would come from numerous wind parks in the Isthmus of Tehuantepec (which now has the world's densest concentration of onshore wind parks). Howe and Boyer interview a range of individuals and groups involved with and affected by the construction of these large wind parks, including activists, *campesinos*, bankers, engineers and politicians. 'Our experiences in Mexico' they summarise, 'taught us that renewable energy can be installed in ways that do little to challenge the extractive logics that have undergirded the mining and fossil fuel industries. Renewable energy matters, but it matters more how it is brought into being and what forms of consultation and cooperation are used' (2019). Global energy transition offers us a chance to share power and resources (political, social and material) more fairly across society by ditching the extractive, exploitative and destructive practices that have dominated our relationship with fossil fuels. A transition to renewables can redress ongoing colonial violence as well as ecological violence by building an economy designed to support everyone, not just to produce profit. At its core, energy transition must be democratic.

Education will be central to a democratic energy transition. Despite the global youth climate strikes of 2019 and early 2020 displaying the enormous desire among young people to address climate change and its associated injustices, climate-related topics remain largely absent from curricula in many countries. Teaching students and youth groups about the environmental, cultural and political dynamics of energy futures is a powerful way in which the work of cultural relations can make significant contributions to a just transition away from fossil fuels. For many young people, climate change presents an overwhelming challenge that generates a

deep sense of anxiety. Discussing our relationship with energy, however, allows students to address fears of environmental issues by considering the concrete actions which we all can take in our daily lives. The International Youth Deliberation on Energy Futures 2020 offers an example of the value of such an approach to environmental education. A team of energy-focused researchers led this seven-month project which helped students:

*To develop the energy literacy needed to engage in just and sustainable energy transitions. [...] [H]undreds of high school students from 18 countries connected through shared curriculum and structured online research exchanges that included critical dialogues, inter-school collaborations, and ongoing discussion via blogs, forums, and videoconferencing.*

Shultz & Karsgaard (2021)

Through writing, presentations and artwork, students expressed what they had learned about the histories of fossil fuels, energy transition and activism, and how the science of climate change is linked to culture, politics, economics and everyday life. By placing a just energy transition at the centre of environmental education, not only will the British Council's cultural relations avoid contributing to 'green colonialism', in which powerful and influential nations and institutions use conservation as cover for continuing extractivist (albeit low-carbon) practices, it will also teach new generations how to end many of the injustices of the past and present through the social relations built around energy.

If we are to create a future free from fossil fuels, it is essential that we understand not only how they are changing the biosphere, but also how they have changed us. While scientists continue to identify the destructive consequences of rising carbon emissions, environmentally focused artwork and research in the energy humanities show us that energy transition will be a social and political project as much as a technical one. Today, we face a global energy transition of which we are all aware. By building research and education networks that uncover and explore the histories, cultures and potential futures of energy; by promoting artwork from those who endure the acute hardships of our global fossil fuel economy; and by supporting the rights of indigenous communities and those across the Global South who suffer from the ongoing legacies of extractive practices, the work of cultural relations across the globe can help to ensure that our transition away from fossil fuels has justice at its heart.



# References

Burtynsky, E (2011) *Oil. Germany: Steidl.*

Ghosh, A (2017) 'Petrofiction: The Oil Encounter and the Novel', in I Szeman & D Boyer (eds) *Energy Humanities: An Anthology.* Maryland: Johns Hopkins University Press, pp. 431–439.

Howe, C & Boyer, D (2019) *Wind and Power in the Anthropocene.* North Carolina: Duke University Press.

Jameson, F (2015) *The Antinomies of Realism.* London: Verso.

LeMenager, S (2014) *Living Oil: Petroleum Culture in the American Century.* Oxford: Oxford University Press.

Malm, A (2016) *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming.* London: Verso.

*Manufactured Landscapes* (2006) Directed by Jennifer Baichwal. Canada: Mercury Films.

Mitchell, T (2013) *Carbon Democracy: Political Power in the Age of Oil.* London: Verso.

Nixon, R (2011) *Slow Violence and the Environmentalism of the Poor.* Cambridge: Harvard University Press.

Petrocultures Research Group (2016) *After Oil.* Edmonton: Petrocultures Research Group.

Saro-Wiwa, K (1995) *A Month and a Day: A Detention Diary.* London: Penguin Books.

Shultz, L & Karsgaard, C (2020) Researchers Work with High School Students from 18 Countries to Address Energy Futures. [energyhumanities.ca](http://energyhumanities.ca). Available online at: [www.energyhumanities.ca/news/researchers-work-with-high-school-students-from-18-countries-to-address-energy-futures](http://www.energyhumanities.ca/news/researchers-work-with-high-school-students-from-18-countries-to-address-energy-futures) (accessed 21 February 2021).

Smil, V (2018) *Energy and Civilization: A History.* Cambridge: The MIT Press.

Streeby, S (2017) *Imagining the Future of Climate Change: World-Making Through Science Fiction and Activism.* Oakland: University of California Press.

Szeman, I (2007) System Failure: Oil, Futurity, and the Anticipation of Disaster. *South Atlantic Quarterly* 106/4: pp. 805–823.

Szeman, I & Boyer, D (2017a) 'Introduction: On the Energy Humanities', in I Szeman & D Boyer (eds) *Energy Humanities: An Anthology.* Maryland: Johns Hopkins University Press, pp. 1–13.

Szeman, I & Boyer, D (2017b) 'The Aesthetics of Petrocultures', in I Szeman & D Boyer (eds) *Energy Humanities: An Anthology.* Maryland: Johns Hopkins University Press, pp. 427–430.

Watts, M (2008) 'Sweet and Sour', in M Watts (ed.) *Curse of the Black Gold: Fifty Years of Oil in the Niger Delta.* New York: Powerhouse, pp. 36–55.

Yaeger, P (2011) Editor's Column: Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources. *PMLA* 126/2: pp. 305–310.

# Concluding remarks to The Climate Connection Cultural Relations Collection Special Edition

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The 2021 United Nations Climate Change Conference (COP26) will take place in Glasgow, the ‘second city’ of the British Empire, and be hosted by the UK, the birthplace of the modern fossil economy. This moment therefore provides pause for looking back at the historical roots of the current global climate emergency. Since 1995, with the notable exception of 2020, the COP has provided a vital opportunity for global leaders and decision makers to meet and deliberate on how to jointly govern our common atmosphere. Yet the COP is much more than just a gathering of high-profile figures. The deliberations and decisions made at the COP are a result of and testament to the commitment of thousands of people – scientists, public servants, administrators and others – who are hard at work behind the scenes in between the annual COP meeting. After all, there is only so much progress that can be achieved during the two weeks that the COP tends to last. The biannual Subsidiary Bodies meetings and the Intergovernmental Panel on Climate Change (IPCC) process are perhaps the clearest examples of these crucial interactions constantly taking place in the background. These backroom meetings, conversations and exchanges of information between state delegations, international organisations and the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat all depend on mutual trust, understanding and observance of certain rules. In essence, they are cultural relations.

Similarly, it is not only public officials and diplomats that gather at the COP. The global climate is too important to be left to state governments and international bodies alone. That is why each COP invariably spurs a blossoming of civil society activity both in the

run-up to and during the conference itself. Marches, workshops, meetings, sit-ins and ‘die-ins’, speeches and many other forms of civic engagement (and sometimes disobedience) are offered during various side events and alternative summits organised by the likes of the Climate Action Network, 350.org, the Indigenous Climate Network, the Climate Justice Alliance and Extinction Rebellion. These bring together activists, academics, policymakers, business leaders and other members of the public, often with the explicit goal to further the principles of climate justice and human rights. These, too, are cultural relations.

What this means is that global climate governance is actually underpinned by cultural relations. If we want to address the planetary emergency of our atmosphere, we will need to rely on cross-cultural exchanges to foster mutual trust and understanding – not just during COP meetings, but throughout the next decade or so, which according to the IPCC will be absolutely crucial in determining the extent of irreversible changes to the Earth’s climate system. In other words, we argue that the climate emergency is, in many ways, also a cultural emergency. It is a common misconception that the deployment of technology, funding and science will do the trick to solve the climate conundrum. In reality, these are just tools at our disposal – cultural relations can help us use them both more effectively and equitably.

Indeed, the sticking points of global climate negotiations – beyond the usual and more technical bickering over access to funding and technology – have long been about the historical responsibility of certain countries for emitting the bulk of greenhouse gases. These countries, like the UK, are

predominantly in the Global North, meaning that international debates often descend into arguments over the compensatory or corrective measures these countries should take given the disproportionate effects of climate change impacts on countries in the Global South. The right to development of many countries in Africa, Asia, Latin America and the Pacific is seen as a *sine qua non* for their governments, while leaders from the Global North insist that this development must be rooted in sustainability rather than focused on economic growth alone (which is not to say they do not often pursue this latter strategy, themselves). From this complicated dynamic emerges a picture of global inequality, not simply as part of a North–South divide, but also within regions and countries. With these inequalities, climate justice emerges as an important goal for making international climate governance more legitimate and effective.

The question this collection of essays has tried to answer is: how could cultural relations contribute to solving the seemingly unsolvable impasse when it comes to addressing the climate emergency? If, as we argue here, the success of the UNFCCC at least partially depends on the extent to which cultural relations can foster a climate [sic] of trust and mutual understanding, thus helping to resolve the issues of global climate injustice, then the arguments found in this collection's six essays can point us in the right direction towards resolving the thorny question of climate inequity and injustice. Below, we tease out how each of them does so.

Carla Figueira and Aimee Fullman's contribution approaches issues of justice in at least two different ways. First, they argue for cultural relations and co-operation that are

'fair, inclusive and diverse', recognising that national cultural institutes often carry colonial or imperialist baggage that needs to be openly recognised and addressed. This does not only refer to issues of climate change. The authors invoke the global COVID-19 response as an example that lays bare the long-standing inequities between wealthy and poorer nations when it comes to access to financial, technological and cultural resources. Seen in this way, the pandemic offers a lesson on how not to address a planetary crisis. Second, Figueira and Fullman touch on the issues of intergenerational (climate) justice, observing that much of the climate change programming in the West is aimed predominantly at young people, whose lives are bound to be most impacted by climate change in the long term. However, they caution against a limited, unidimensional strategy of this kind and instead argue for a holistic approach reflected in diverse audiences, geographies, types of engagement, and programme and partnering models (Fullman, 2012).

Nina Schuller stresses both the importance and the potential of digital technologies for promoting equal participation in creating our 'shared imaginings' of a sustainable world. More specifically, she places emphasis on the issue of knowledge making and translation as it relates to climate discourse, trust, knowledge and action. Similar to the insights by Figueira and Fullman, Schuller recognises the importance of building trust upon which, as suggested by a number of studies, the acceptance and use of climate knowledge is predicated. Yet, the author also points to the unequal politics of translation and knowledge production, with corporations based in the Global North, like Wikimedia, as well as some national governments holding disproportionate control over what kind of

climate knowledge is accessible on the web, and how it is translated. This kind of digital or data colonialism reduces epistemic diversity and undermines the intercultural trust necessary for effective global climate action.

Closely related to these insights, Jessica Gosling underscores the value of digital skills in mitigating climate change. It is hard to imagine a global co-operative effort to address the climate crisis without different parties being able to use communication technologies in an equitable manner. However, Gosling observes that digital competencies and access to new technologies are far from evenly distributed among nations. This is particularly problematic for developing or rapidly industrialising countries, where these skills and resources are not only vital for enabling their meaningful participation in global climate governance, but also act as one of the foundations for building economic and social prosperity. Gosling also notes that a climate-just future requires all citizens to be able to 'have more of a voice to articulate their wants and needs' – an ability for which, in this day and age, digital skills are of crucial importance. Thus, she concludes by emphasising the vitality of education, including digital education, entrepreneurship and soft skill development, for realising the commitments enshrined in the Paris Agreement in an equitable manner.

Charlotte Nussey highlights the important connections between climate justice, culture and education. 'Culture' can be used to exclude or oppress when not understood in terms of multiple forms of knowledge, while cultural expressions of climate change that centre historically excluded and marginalised voices can serve to increase our collective knowledge, flatten hierarchies and challenge taken-for-granted categories. Nussey highlights the way in which cultural and artists' acts of protest, from the work of artist-poet

Kathy Jetñil-Kijiner to the Kenyan Green Belt Movement, help embed climate change within communities and highlight often-intersecting forms of inequality and exclusion. This echoes the work on intersectional climate justice and argues that climate justice is also a matter of racial justice, gender justice and others.

The essay by Chloé Germaine Buckley and Benjamin Bowman speaks directly to issues of climate justice given its focus on the Youth Strikes for Climate. As others' essays have highlighted, climate justice as presented here and by young people is intersectional, drawing links between the climate emergency and racism, colonialism and patriarchy. For Buckley and Bowman, the climate strikes are a global conversation, and this conversation is concerned with dissent, solidarity and justice. The climate strikes, read as cultural exchange, allow young people to listen to one another, share experiences and uphold each other's voices. As for what is next, Buckley and Bowman argue that people, including adults in power, should engage in dialogue with youth, who will ensure that justice is at the centre of efforts to address the climate emergency.

In his essay on the emergent energy humanities, Sam McNeilly convincingly argues that cultural relations can help ensure that individuals, communities and institutions place justice at the centre of global efforts to transition away from fossil fuels. Much of the work that McNeilly draws on, such as the writing of Ken Saro-Wiwa, speaks to, or actively calls for, environmental or climate justice. In the essay McNeilly suggests possible ways to move towards a future free of fossil fuels, but cautions that the shift to renewable energy is itself not inherently just, rather it must be won. Like other essays in the collection, McNeilly stresses the importance of education, in this case in the democratic, and just, energy transition.

As we have shown above, questions of equity and justice in cultural relations are interwoven into all the essays in this collection. Authors have pointed to issues of intergenerational justice, the intersection of culture, politics, education and technology, different levels of access to education and other resources among and within nations, and the unequal nature of climate knowledge production itself. What emerges from these contributions is an extremely complex picture of what we know, how we think about and how we co-operate to solve the climate emergency. There may be many challenges ahead, but the authors and editors of this collection share the hope that cultural relations, if done the right way, can help foster a global ethics of care for the planet and all its people.

While the G7 Summit held in the UK in June 2021 saw reaffirming goals of reducing global warming, it also failed to reach climate finance targets needed by countries in the Global South, those at the sharp end of climate change's impacts. COP26 will be an occasion to do better than that. Regardless of what happens behind the closed doors of COP negotiation rooms, we can be certain that the vibrant cultural exchanges between different people and cultures held in Glasgow this November will continue to foster the inclusive and diverse cultural relations we need to address the global climate emergency.







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