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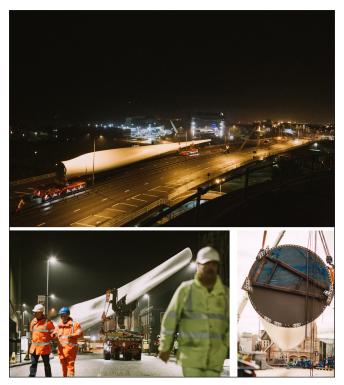
Climate, Power, and Possible Futures, from the Banks of the Humber Estuary

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Nayan Kulkarni's *Blade*, Lucy and Jorge Orta's *Raft of the Medusa*, and Nikolaj Bendix Skyum Larsen's *Quicksand* were exhibited in Hull during its year as the 2017 UK City of Culture. These artworks provide the impetus for an article that moves between the local, national, and global, in order to connect visual culture, climate politics, and questions of citizenship and borders in a warming world. In the first section, I discuss how *Blade*—a wind turbine rotor blade repurposed as a public art installation—provides the opportunity to examine the role of large-scale renewable energy transition in addressing the deep regional economic inequalities in the UK. In the second section, I consider how artworks displayed as part of the 'Somewhere Becoming Sea' exhibition linked Hull's recent history to a global context of displacement and precarity, in the wake of the ongoing 'refugee crisis' within Europe and at its borders. In the final section, I seek to bring together a number of threads from the preceding discussion, in order to outline some alternative political horizons. I turn initially to Sean McAllister's documentary *A Northern Soul* (2018) and its powerful examination of how personal debt, the toxic fuel of neoliberalism, forecloses the future. In opposition to a future of deepening inequality and climate breakdown, I trace a renewed politics of public ownership and expanded social welfare in the UK, and its place in a prospective *global* renewable energy transition. This is a hopeful vision, given the current political climate, I argue, but it is also an eminently feasible one.

In the early hours of the eighth of January 2017, a wind turbine rotor blade was carefully manoeuvred through the streets of the northern city of Hull.[1] Its slow journey ended in Queen Victoria Square, the heart of the city centre, where it was installed on two purpose-built plinths. The 75-metre blade arched gracefully across the busy public gathering place (**Figures 1–3**). Hull was beginning its year as the 2017 UK City of Culture. Held every four years, the City of Culture designation aims to attract tourism and investment, direct urban regeneration, and provide opportunities for engagement in the arts for the local community. Nayan Kulkarni's *Blade* was to be the first, and most striking, of a series of installations that marked the city's eventful past and looked toward the future.

Figures 1–3: The transportation and installation of Nayan Kulkarni's *Blade* in January 2017. Photos: © Thomas Arran. Reproduced with permission of the photographer and Absolutely Cultured.

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[1] The research for the current article also forms the basis for my 'Power and Public Ownership in Hull, the UK's "Energy City"', which was published in the online magazine *The Trouble* in October 2018 (White, 2018).

The rotor blade had not travelled far. In November 2014, Siemens—the largest electronics and manufacturing corporation in Europe—announced that it had chosen Hull as the location for a new factory for the production of wind turbines. It was from the new factory, which began operating in December 2016, that Kulkarni had borrowed the blade.

The Siemens's facility occupies most of the city's Alexandra Dock. Opened in 1885 by the Hull, Barnsley & West Riding Junction Railway and Dock Company, the dock had been used for the export of coal from the collieries of South Yorkshire. It closed in 1982, but in 2011 Siemens signed a 'memorandum of understanding' with Associated British Ports—the limited company that owns and operates 21 ports in the United Kingdom—that they would open a turbine factory on the site, which was subsequently rebranded as Greenport Hull.

Located on the Humber estuary on the east coast of Britain, Hull provides an ideal site for the manufacture of turbines for the numerous offshore arrays currently being assembled in the North Sea. These arrays supply energy to a British electricity grid still chiefly dependent on coal, gas, and nuclear energy.[2] The provision of these arrays is only the latest chapter in Hull's long manufacturing and seafaring history. This history is recorded in the city's maritime museum, which overlooks the square where Kulkarni's *Blade* took up residence. The museum details Hull's role in the Hanseatic League, the whaling and shipping fleets of the nineteenth century, and the deep-sea trawler fleets of the twentieth.

Most of the docks had closed by the early 1980s, though, as the fishing industry declined due to the 'Cod Wars' with Iceland, European fishing quotas, and rising oil prices. No comparable employment base has emerged: unemployment levels remain among the highest in the UK and over a third of children in the city live in poverty.[3] Hull's bid to become the 2017 City of Culture drew on the city's long and proud cultural history. Yet it was also intimately connected to this difficult recent

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[2] For a real-time map of the UK's offshore wind energy production, see https://www.thecrownestate.co.uk/en-gb/our-places/asset-map/.

[3] 'In relation to national averages', the preface to a recent public health report read, 'Hull has a higher unemployment rate, more poor housing, residents qualified to a lower level and higher levels of crime' (Hull City Council, 2017: 1).

economic and social history. Hull was, in the organiser's words, a city 'coming out of the shadows', with the City of Culture award 'a unique chance to shed its image as a declining and deprived port city and to build a new profile as a vibrant cultural city' (Culture, Place and Policy Institute, 2018: 6).

A celebration of the environmental and economic potential of renewable energy production, *Blade* captured a sense of the guarded optimism that has flowed through Hull in recent years, as a result both of the opening of the Siemens factory and the City of Culture award. Yet as I argue in the first section below, Kulkarni's installation also offers the opportunity to examine further the role of corporations like Siemens in a putative 'green capitalism'. I use 'green capitalism' throughout what follows to denote the form of capitalism that has developed under neoliberalism, in which the rhetoric of environmentalism and sustainability has been mobilised by Western governments in the service of an economic system in which 'the "needs" and "development" of corporate industry are privileged above all else' (Demos, 2016: 36).[4] Hull, I argue, provides a particularly good illustration of the limits of private-sector led renewable energy production.

In the second section, I turn to two artworks on display in Hull in the months after *Blade* had returned to the Siemens factory. Lucy and Jorge Orta's *Raft of the Medusa* (2013) and Nikolaj Bendix Skyum Larsen's *Quicksand* (2017) connected Hull to geographically distant locations via the prospect of unruly, rising seas. Both works invoked the 'refugee crisis' in Europe that came to a head in the Mediterranean during the summer of 2015. In so doing, I argue, they also raised significant questions around the relationships between politics, displacement, and visual culture, in a world where the prospects for those fleeing conflict, the consequences of environmental degradation, economic hardship, or a combination of all three, are increasingly constrained.

In the third section, I continue to move between the local, national, and global, in order to outline an alternative social and political horizon to a world of deepening

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[4] Corporate Watch's *A–Z of Green Capitalism* provides a useful introduction to the ideas behind 'green capitalism' and its position as 'as a stage in the evolution of capitalism — or even perhaps a necessary step for its continuation' (2016: 12). For a detailed critique of 'green Keynesianism' in particular, see chapter five, 'A Green Capitalism?' of Mann and Wainwright (2018).

inequality, hardening borders, and climate catastrophe. As Geoff Mann and Joel Wainwright note in *Climate Leviathan*, 'We're fucked' has become a familiar refrain in 'political writing on climate change', a despondent cry in the face of continuing inaction and planetary systems spiralling out of control (2018: xi). But 'we're fucked' is not good enough, not least because those of us who dwell in the Global North largely still have the privilege of locating the most devastating effects of climate change at some point in the future, even if that date seems to be arriving ever sooner, looming ever larger on the horizon.

In addressing this challenge, I turn to a number of policies around renewable energy provision and public ownership recently announced by the Labour Party, as well as to the broader political and intellectual project that has coalesced around Jeremy Corbyn's leadership.[5] In so doing, I do not mean to imply that the prospect for global climate mitigation lies solely in Labour's electoral fortunes. Nevertheless, the increasingly condensed timeframe for meaningful action on CO_2 emissions dictates that any political project will have to start soon and will have to be interwoven with attempts to meet existing political challenges. In the UK, this especially means addressing the deep regional inequalities between North and South that have long characterised the economy.

The burgeoning field of the energy humanities provides a broader critical and theoretical framework for much of the following discussion. In the introduction to *Energy Humanities: An Anthology*, Imre Szeman and Dominic Boyer detail how fossil fuels have enabled the everyday freedoms and infrastructures, as well as the subjectivities and epistemologies, that those who dwell in the Global North equate with modernity. Energy, they argue, has played a 'critical', though hitherto underexamined role 'in shaping existing social infrastructures, lived and material infrastructures, and even cultural practices' (Szeman and Boyer, 2017: 3). Following from this, and as Szeman and Boyer make plain, renewable energy transition should

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[5] I follow Joe Kennedy's recent characterisation of Corbyn*ism* as a movement that unites a wide range of left-wing views and backgrounds, that provides a forum for disagreement and debate, and that is difficult to categorise definitively, but that has 'come about as various particular issues are linked together through the figure of Corbyn, whose real success has been in producing a sense of common interest' (2018: 225).

not be thought of simply as a technical question of substituting one fuel input for another (2017: 3). Instead, it presents both the challenge and the opportunity to fundamentally rethink the way our politics and societies (and especially our cities) are organised, our relationship to work and free time, and the myriad 'cultural practices' through which we imagine the future. By examining Hull's recent history, and its possible future, I consider in this article how energy imaginaries are also economic, social, and cultural imaginaries.

Energy futures

I visited *Blade* in March 2017, on the last day of its residency in the city centre. It was an overcast afternoon, but even under a low, grey sky, *Blade* was a remarkable spectacle (**Figure 4**). The turbine blades produced at the Siemens factory are cast by hand as a single piece of glass fibre-reinforced resin and balsa wood. The matte finish of the blade produced a peculiar optical illusion: even viewing the installation in person, it looked somehow superimposed or computer generated.

Figure 4: *Blade* in Queen Victoria Square. Photo © Thomas Arran. Reproduced with permission of the photographer and Absolutely Cultured.

Blade is an eye-catching synecdoche for the potential role of renewable energy manufacturing in the regeneration of communities that underwent rapid deindustrialisation in the last quarter of the twentieth century. Its symbolism seems clear—this sleek, futuristic technology guarantees jobs and investment in the local area in the short to medium term. The Siemens factory brought around 1,000 jobs to the city, as well as the prospect of establishing Hull as a hub for further forms of green industry. The ambitious 'Hull City Plan' was launched in 2013 as an alliance of public, private, voluntary, and community sectors. Building on Siemens's announcement that it would open a new factory in the city, one of the Plan's central components was to establish Hull as the UK's 'Energy City', the home of renewable energy generation, research, and education (Hull City Council, 2013).

Blade also intimates a broader transition from fossil to renewable energy in the long term, a welcome vision of the future in a low-lying, flood-prone city like Hull (around 90% of the city lies below the high-tide line). There is an appealing symmetry in the knowledge that a dock once used to export coal is now home to wind energy production. The return of social prosperity and civic pride in the city are closely connected to the ethical cache of renewable energy—the huge arrays located miles out to sea are good not only for the regional and national economy, but also for the planet.

This vision of urban renewal and economic growth—and of art neatly incorporated into a straightforward account of recovery—is clearly only part of the story, though. *Blade*'s temporary presence in the city centre demands a more detailed account of how the word 'power' 'fluidly refers to energy systems and sociopolitical systems alike, which constitute nonidentical but overlapping circuits of efficacy and resistance' (Campana, 2017: 61). Speaking shortly after the installation was revealed, Kulkarni alluded to the reasons why the Humber was chosen as the location for the new factory, besides its geographical advantages: "'I knew how many negotiations and deals had gone into getting Siemens to open their plant in the city"' Kulkarni said, "'and the impact it would have on the area, so it felt almost self-evident to ask them to donate a blade"' (Ellis-Petersen, 2017). The extensive 'negotiations and deals' that brought the turbine factory to Hull over rival bids from cities in the Netherlands and Denmark are testament to the power of corporations like Siemens

within the neoliberal state. In 2012, much of the Humber estuary was designated as an Enterprise Zone, where corporations benefit from reduced taxes, business rates, and regulations. As David Harvey writes in his classic study of neoliberalism:

> Businesses and corporations not only collaborate intimately with state actors but even acquire a strong role in writing legislation, determining public policies, and setting regulatory frameworks (which are mainly advantageous to themselves (2005: 76–7).

In practice, neoliberalism entails not simply the rolling back of the state, as some accounts suggest and as neoliberal theory itself claims, but rather an alignment of state and corporate interests, through which the 'boundary between state and corporate power' becomes 'more and more porous' (Harvey, 2005: 77–8).

In her research on the development of an offshore wind power array in the Isthmus of Tehuantepec (Oaxaca, Mexico), Cymene Howe writes of how the project is 'steeped in neoliberal development logics, persuading government agencies and functionaries to align with the profit seeking interests of renewable energy corporations' (2014: 384–5). The politics of renewable energy differ from place to place, of course, but Howe's comments capture a general principle that bears repeating: though they are often framed as an unalloyed good, there is nothing inherently emancipatory in renewable energy technologies. The form renewable energy projects take, their control and management, and their place within a broader political economy demand ongoing attention and critique.

In the UK, the privatisation of public utilities and services instigated by the Conservative party under Margaret Thatcher and continued by Tony Blair's New Labour after 1997 provides the conditions for current renewable energy manufacturing and provision. The neoliberal orthodoxies of privatisation and outsourcing have been forced onto the populations of states across the world, of course, but few countries have implemented these policies with as much fervour, or as little foresight, as the UK. In the 1980s, the UK's communications, gas, and water networks, as well as its ports and airports were sold off, followed by the railways in the 90s and, since then, the Royal Mail and elements of the National Health Service. The UK's energy board,

regional suppliers, and infrastructure—grids, cables, and transformers, as well as its existing power stations—were split and sold to the highest bidders in the 1990s. EDF Energy, majority-owned by the French state, began buying parts of the network in 1998. EDF now owns all the UK's nuclear reactors and many of its coal- and gas-powered stations. British electricity was in large part renationalised, but by the government of France (Meek, 2014: 218).

Renewable energy provision has followed a similar path. The UK's renewable energy network, particularly its offshore wind provision, is growing rapidly, but it remains an opaque and undemocratic mix of state-sized corporations like Siemens and majority state-owned energy companies like Ørsted (formerly DONG Energy) and Equinor (formerly Statoil). Both Ørsted and Equinor are public limited companies; the former is majority-owned by the Danish state, the latter by the Norwegian state. All receive significant financial support and are often unwilling to invest without profitability guarantees, tax breaks, or other effective public subsidies. In this context, we can think of *Blade* as what T. J. Demos calls a 'selective abstraction' (2016: 52). Siemens's property temporarily became public sculpture, but this transformation raises the question of the extent to which 'green' has simply become another of the strategies that 'capitalism has generated to sustain its own development and to safeguard its hegemony' in an age of impending climate catastrophe (Nardizzi, 2013: 148).

Kulkarni's own ambivalent comments on *Blade* and the long-term prospect of a meaningful energy transition are instructive here. In another interview shortly after the installation was revealed, Kulkarni reflected on how wind turbines:

Are a necessary stopgap between the transformations in global relationships to new sources of energy and energy usage. However, like many technological teleologys [sic], we (the global rich) end up not having to make significant cultural and geo-political decisions for twenty years, as these decisions do not yet satisfy our hunger for energy – they just satiate it. Indeed, they defer more complex choices to the future.

[…]

They are an emblem of the future, the defining form of the twenty-first century and symbolise a particular idea of the future. Indeed, they seem

like a hopeful future and because of this, European energy politics becomes centred on them. Yet wind turbines cannot solve long term issues on their own, they are more palliative. (3rd Dimension, 2017: n.p.)

The deferral of complex, long-term decisions around energy provision and consumption is encapsulated in one element of the Greenport Hull plan that has not been widely publicised: the Siemens factory is intended to operate only for around thirty years, at which point, according to the plans originally filed by the company and Associated British Ports, it will be dismantled and the land will 'revert to general port use' (Wilson, 2011: 8).

This timescale—clearly aligned with the kind of profit seeking described by Howe, rather than a longer-term vision of energy transition for the public good—is a short one in comparison to the surrounding fossil fuel infrastructure in the area. For a range of interwoven geological, social, and political reasons, this is a part of the country where fuel and energy production has long been a prominent feature of the landscape. Just a few hundred metres to the east of the site of the new Siemens factory is the Salt End power station and chemical processing plant, owned by BP. Directly opposite on the south bank of the estuary are two vast oil refineries built in the late 1960s, owned by American corporations Total and Phillips 66 respectively. At both plants, gas flares extend high into the sky; at night, the bright flames hang over the estuary like artificial stars.

Inland to the west, the distinctive grey cooling towers of the coal-fired power plants at Drax and Eggborough stand out against the flat, green landscape. When the plants began supplying electricity to the grid in 1971 and 1966 respectively, coal was supplied from nearby mines. Since their closure in the late 1970s and throughout the 1980s it is now brought via the Humber estuary from as far afield as Australia and Columbia. These features of the landscape all provide a blunt reminder of the scale of our ever-increasing energy demands and infrastructure and, by extension, of any prospective energy transition.

Recent studies paint a troubling picture. A 2016 International Energy Agency (IEA) study on global energy consumption found that while the amount of energy

generated from renewable sources has increased enormously since 1971 (the study's comparison point), its total share in the world energy supply had grown only marginally. In 1971, 86% of energy consumed worldwide was from fossil fuels; in 2014, this figure was still 82% (IEA, 2016: 10). As the IEA figures make plain, under capitalism ('green' or otherwise) the energy generated by renewable means does not replace the equivalent amount of fossil energy in the global grid. Instead, capitalism's voracious appetite for profit and expanded markets puts the additional energy generated from renewable sources to new uses; relying solely on the logic of supply and demand to transition away from fossil fuels is 'foolhardy' at best (Malm, 2016: 381–2). Predictably, attempts at political intervention along these lines—tinkering at the edges of the economic system—have proven ineffective. The repeated, occasionally spectacular, failure of regressive carbon taxes (particularly in the form of fuel taxes) and 'cap-and-trade' schemes (where corporations receive an emissions budget, but can trade their allowance) to halt the yearly increase in CO_2 emissions expose the broader paradox at the heart of a putative 'green capitalism:' an uncritical obedience to the doctrine of market forces and competition are being entrusted to remedy the problems that they are responsible for creating.

Siemens provided a good example of the barriers to large-scale energy transition under capitalism when it scrapped its solar energy division in 2012, citing its declining profitability as technological and manufacturing developments made solar energy production cheaper. It is not alone in this regard. In 2006, Shell paid the German start-up Solar World to take over its solar division. Two years later, Shell also withdrew from the London Array offshore wind power project. BP gradually closed its solar panel factories before withdrawing from the renewables field completely in 2013. These decisions direct us toward one of the central 'problems' of renewable energy production and generation under capitalism: during periods of peak production, when the grid is already at capacity, any additional energy generated will be surplus to requirements. That is, the power of the sun, wind, and waves is often too plentiful to be profitable, and rates of investment fall accordingly. As Andreas Malm concludes, the 'realisation of the potential of solar and wind on the basis of capitalist property relations' quickly becomes a 'self-undermining, involuting enterprise' (2016: 372).

Between 2011 and 2013, a period which marked the height of the neoliberal re-entrenchment after the financial crisis of 2008, investment in renewable energy fell by over 20% globally and by over 40% in Europe (Malm, 2016: 371). In the UK, investment in renewable energy fell by a further 56% between 2016 and 2017, amid continuing indecision on the part of the current government as to their long-term renewables strategy (Vaughan, 2018a). The last two decades have also shown that the counterpart to 'green' technologies like the new generation of wind turbines produced in Hull is the continued investment in and expansion of fossil fuel extraction. The fracking of shale gas has further expanded the domain of energy companies. In England, the recent decision to effectively remove control over fracking applications from local authorities potentially signals a new era for the industry. In the first three months of 2018, local councils blocked seven out of eight planning applications for wells, often as a result of overwhelming public opposition and protest; the new rules enable central government to bypass councils to green-light drilling (Vaughan, 2018b). The area around Hull has been designated as open for exploratory drilling and extraction. The West Newton B Wellsite, perhaps the first of many shale gas drilling sites in the area, lies north-east of the city, just a few miles inland from the coast. The counterpart to the wind power arrays taking shape on the horizon, far out at sea, is the construction of new components of fossil capital infrastructure much closer to home.

Dangerous waters

Hull City Council's vision of becoming the UK's 'Energy City' has largely failed to materialise, due in significant part to supply-chain companies not following Siemens to the banks of the Humber. Many of the components for the Siemens turbines are still shipped in from elsewhere and then assembled. The result of the EU referendum of June 2016 is one clear factor in the stalling of the Council's ambitious plans. Siemens had initially planned to expand its factory in the city in order to export turbines to other countries in Europe, but these plans were quickly put on hold in the wake of what Tom Hazeldine calls the 'revolt of the rustbelt' (2017: 51). 67% of the electorate in Hull voted to leave the European Union, a pattern repeated across many of the former industrial heartlands of the North, the Midlands, and South Wales. All had

suffered long periods of unemployment, lack of opportunity, and declining living standards, intensified since 2010 by the austerity policies imposed by successive Conservative and coalition governments. As Hazeldine emphasises, this wasn't the only vector in the Leave vote—age was perhaps the major variable nationwide, and many affluent and Conservative-voting areas of the of the South East voted Leave even more decisively—but it was a significant one. While 'the rhetoric of Leave was anti-immigrant', Hazeldine concludes, 'the anger that powered it to victory came from decline' (2017: 69).

The legacy of Hull's year as City of Culture is inextricable from the last nine years of austerity, a period which represents only the latest chapter in the rolling back of the provisions offered by the state and its role in planning for an uncertain future. For all the public and corporate investment since 2013 and the employment it has created, municipal funding has been decimated by central government cuts: Hull has lost more than £120 million from its budget since 2010 (Young, 2018). The visibility of the city's recent transformation obscures how additional drastic cuts to education, social provision, Jobseeker's Allowance, and disability benefits due to take place by 2020 will further entrench and deepen inequality (Young, 2018).
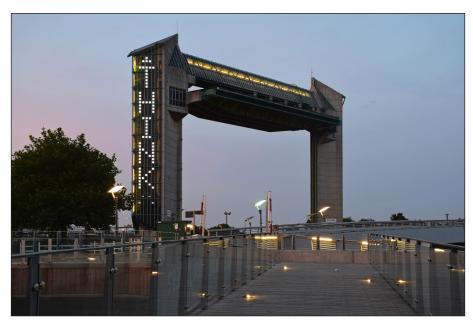
The effects of global warming will soon exacerbate existing inequalities. The 'Hull City Plan' includes a section optimistically titled 'Living with Water', which presents a vision of the 'assets' and 'benefits' to be wrought from the city's precarious position. It seems likely though that any 'benefits' from rising sea levels will accrue to the rich and privileged, in line with the various forms of 'disaster capitalism' evolving across the world, while risk will arrive first at the doors of the poor and least powerful (Funk, 2014). In the 1980s, plans were developed to build a tidal barrier in the Humber, comparable in size to the Thames Barrier protecting London and even the vast Maeslant Barrier outside Rotterdam. The plan was rejected, though, not least because it would inhibit the number of commercial vessels and oil tankers that could use the estuary. More recently, flood defence spending has been allocated to the city and surrounding area. Work began in early 2018 on a £36.5 million scheme to strengthen defences along the River Hull, which runs through the heart of the city. A further £42 million has been earmarked for a scheme to raise existing defences

at various points along the Humber, as part of a nationwide flood defence project funded by central government. However, in an age of reduced municipal funding, and in the absence of any meaningful, long-term plan for mitigating CO_2 emissions, these preventative measures are a partial solution at best. Bigger walls will keep rising seas at bay for a while, but the question of who pays for large-scale adaptation, particularly the much-needed improvements to housing stock in the poorest areas of the city, is deferred. For many residents, 'property-level protection' (air bricks, anti-flood doors, and non-return valves) and energy-efficiency measures are prohibitively expensive (Walsh, 2018).

Two recent events weigh heavily in the memory of the city. In June 2007, Hull and much of the surrounding area was inundated by a flash flood after a month's rain fell over the course of just a few hours. In December 2013, violent storms coincided with a tidal surge to flood a number of homes and businesses. A council report on the 2013 flood detailed its scale and impact. 'It is essential', the report read, that the two planned flood defence schemes 'lead to improvements to the city's defences to ensure future flood risks and the impacts of climate change are appropriately managed' (Hull City Council, 2014: 18–19). The sense of urgency was understandable: the tidal surge of December 2013 came within a few centimetres of overflowing the city's tidal barrier, the central component in its existing flood defences (**Figure 5**). The barrier was completed in 1980 and has prevented more than 30 surges entering the city since then; it is inevitable that its effectiveness will soon be tested again.

The tidal barrier overlooks Hull's old fruit market and marina, an area of the city that has benefitted significantly from the City of Culture regeneration. Converted warehouses now accommodate galleries, bars, restaurants, and shops. New houses and apartments have been built in the surrounding streets.

The Humber Street Gallery occupies what was once a fruit wholesalers' warehouse. It was there in April of 2017 that 'Somewhere Becoming Sea' began, an exhibition of work by artists tasked with examining Hull's role as a gateway to the North Sea and 'the ever-changing boundaries between land and sea…At a time when climate change threatens to blur boundaries further and bring far-reaching economic impact' (Humber

Figure 5: Hull's tidal barrier as seen from Humber Street. The barrier was illuminated with text as part of Michael Pinsky's *City Speaks* installation, which ran between February and December 2017. Photo: © Michael Pinsky. Reproduced with permission of the photographer.

Street Gallery, 2017b). The exhibition's title paraphrased the last line of Phillip Larkin's 1964 poem 'The Whitsun Weddings' ('somewhere becoming rain') and many of the artworks on display dwelt close to the city Larkin called home for much of his life. Esther Johnson's *Hinterland* (2002) and *Retreating the Line* (2017), for example, focus on the rapid erosion of the Holderness coastline to the east of the city. Rates of erosion of the soft sedimentary rock that make up this part of the coast will only intensify as sea levels rise and storm swells become more violent as a result of global warming.

'Somewhere Becoming Sea' also looked further afield. Lucy and Jorge Orta's *Raft of the Medusa* comprises materials washed out to sea after the earthquake and tsunami on the east coast of Japan in 2011 (**Figure 6**). Salvaged from an Alaskan beach four years later, these materials have been weathered by their journey across the Pacific. The smell of decaying rubber, seaweed, wooden planks, and oil drums accompanies the *Raft*, which borrows its title from Théodor Géricault's painting of the aftermath of the sinking of the French ship *Méduse* off the coast of Mauritius in

Figure 6: Lucy and Jorge Orta, *Raft of the Medusa* (2013). Photo © Sean Spencer/Hull News & Pictures. Reproduced with permission of the photographer and the Humber Street Gallery.

1816. The Orta's installation refits Gericault's painting for an age of anthropogenic climate change, an age in which we will all have to live in the aftermath of what Steve Mentz has called 'shipwreck modernity' (2015: xi–xii).

Lucy Orta wrote of the timeliness of exhibiting the piece in Hull, a city whose 'history unfolds through its relationship to the sea', and more generally of how the installation 'remind[s] us of lives that are lost at sea, but also those that are saved' (Humber Street Gallery, 2017a: 3). As Orta intimates, in its makeshift appearance and embedded narratives of displacement, rescue, and loss, the *Raft* evokes the 'refugee crisis' that came to a head in the Mediterranean during the summer of 2015, as Syrian refugees fleeing the interwoven effects of long-term drought in the Middle East, poverty, and civil war sought refuge in Europe.

Larsen explored related themes in *Quicksand* (2017). In what Larsen calls an 'amplification' of existing political 'tendencies', *Quicksand* is set in a near future of 2033 further beset by economic and environmental breakdown. The film traces the hazardous journey of Jason as he attempts to cross the Mediterranean. However, Larsen's film reverses the direction of migration: Jason, who is British, has paid people traffickers to smuggle him away from a Europe in which the far-right has gained political ascendancy and the economy has imploded. Long monochrome shots of swelling seas are accompanied by Jason's hurried phone calls to family members left behind in the UK, as he struggles to reach a 'somewhere else' beyond Europe's closed, militarised borders.

Displayed in Hull, just a few streets away from the tidal barrier, both *Raft of the Medusa* and *Quicksand* connected the city's recent past and uncertain future to broader discussions of climate, power, and migration. Yet they also raised difficult questions around the relationship of politics and visual culture; in particular, of the extent to which it is possible to offer an account of shared precarity in the face of rising sea levels, while also maintaining a sense of the political and historical specificity of recent events in Europe and at its borders. The Ortas' *Raft of the Medusa* is a powerful collection of materials, all with their own eventful histories. Yet in its focus on these materials—and by comparison to Géricault's painting of the crowded life raft of the *Méduse*—it is also an oddly depopulated response to the dangers of irregular migration. In its conspicuous lack of human presence, the *Raft* appears to postpone the question of how 'to represent artistically life severed from representation politically' (Demos, 2013: xv).

Similarly, while *Quicksand*'s account of hazardous, irregular migration *away* from Europe initially has a useful defamiliarising effect, its central conceit feels increasingly implausible as a way to investigate existing political formations and their impact on the lives of migrants and refugees. The film makes a brief reference to the 'refugee crisis' of 2015, but by immediately turning to a European subject position, it effectively overwrites the multiple forms of migration taking place in the present, their complex historical causes, and the nativist political response from states in the Global North. After all, the events of the last decade are not so much

a *refugee* crisis, as a crisis of borders and the idea of citizenship in Europe, a crisis long in the making, in which politics, climate, capitalism, racism, and the legacies of colonialism and imperialism are all tightly interwoven. Further, *Quicksand*'s dystopian vision of a near future characterised by economic and climate breakdown is a well-worn narrative and aesthetic trope. The film constructs a version of Mann and Wainwright's 'we're fucked': a futurist speculation on seemingly inevitable climate and societal breakdown that, in different forms, currently pervades various kinds of art, literature, television, and film.

More broadly, then, *Quicksand* attests to the challenge of imagining a different, more just future, a future that exceeds 'mere accommodation to the known harms of the present' (Segal, 2017: xv). In my final section below, I seek to bring together a number of threads from the preceding discussion, in order to address two connected questions. First, how might renewable energy transition form part of a broader social, cultural, and political project that counters the right's vision of a world in which, increasingly, 'socio-economic inequality will have a meteorological mandate' (Davis, 2010: 29)? And second, to what extent is it possible to mediate between the local—in this case the low-lying city of Hull, perched precariously on a rapidly-eroding coastline—and global?

Different horizons

Hull's deep-sea trawler fleet was once the largest in the world; its rapid decline and disappearance in the late 1970s and early 1980s left a long shadow over the city. Valerie Walkerdine has examined the 'collective trauma' that besets communities hit by deindustrialisation, arguing that it is possible to observe the 'intergenerational transmission' of feelings of lack of continuity and purpose. Walkerdine's approach 'is not about establishing the hopeless pathology of working-class families', nor, I would add, of nostalgically idealising the exploitative conditions and sizeable risks of various forms of industry, but of trying to understand 'the place of history in the making of affective experience and its transmission across generational boundaries' (Walkerdine, 2014).

Sean McAllister's documentary *A Northern Soul* (2018) examines Hull's recent history in a manner that resonates with Walkerdine's thesis. McAllister follows Steve Arnott, a warehouse worker, community activist, and enterprising hip-hop artist, for the duration of Hull's year as City of Culture. The film opens with an account of the divisiveness of the Brexit vote in a city with a long history of migrant populations, and where a number of recent infrastructure projects have been part-funded by the European Union.

A Northern Soul is a searching examination of the effects of austerity in the city, amid the longer history of deindustrialisation and lack of opportunity. As the film makes plain, the counterpart to the jobs created at the Siemens factory is, as elsewhere, the normalising of casualised, exploitative labour and the increasing prevalence of in-work poverty. Steve works full-time, and has done all his life, but is heavily in debt and reliant on payday loans. In a scene late in the film, Steve reorganises his debts into a repayment scheme that, he fears, will lock him into a job he hates for years to come. The scene is a powerful example of how personal debt, the toxic fuel of neoliberalism, 'devours the future's ability to be free of distress, and any sort of social life can begin to fade for those trapped in financial melancholia' (Segal, 2017: 12).

Yet McAllister also makes clear that the City of Culture was a significant period for residents like Steve, who persuades his employers to fund the Beats Bus, a mobile recording studio and literal and figurative vehicle for children in the poorest areas of the city to engage in creative activities. The positive effects of the scheme on those who take part are obvious and far-reaching.[6] Various forms of precarity and risk—social, economic, and environmental—crowd the present, but *A Northern Soul* is a compelling

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[6] Research published in March 2018 by the Culture, Place and Policy Institute (CPPI) at the University of Hull found that over 90% of the city's residents took part in at least one cultural activity during 2017. Eight out of ten participants stated that being involved in City of Culture projects made them feel happier. The outreach and learning programme reached over 55,000 children and young people, of whom 63% said they felt encouraged to engage in creative activities in the future (CPPI, 2018).

and lyrical testament to the role of community in imagining more equitable and just futures for everyone, even under the most pressing conditions (**Figure 7**).

Though it does not figure significantly in *A Northern Soul*, the snap general election called in the summer of 2017 punctuated Hull's year as City of Culture. Like many cities in the North, Hull is a Labour stronghold and the 2017 election was no exception. The Labour manifesto included plans that would be particularly beneficial for the city: national and regional investment banks to fund reinvestment in the productive capacities of the economy and a three-stage plan to bring energy provision back into public ownership. Labour's *Alternative Models of Ownership* report, released just a few days after the 2017 general election, laid out an ambitious vision of national, municipal, cooperative, and worker control and ownership of utilities and services. The report emphasised democratic participation at all levels of decision-making, in industries geared not toward the short or medium-term profits of large corporations, but toward a renewed sense of shared public prosperity (Labour Party, 2017: 11–32).

Polls have repeatedly shown that the renationalisation of rail, water, and energy networks are popular policies with the British electorate after decades of declining services and shameless price gouging (Smith, 2017). This popularity offers a window

Figure 7: Steve Arnott with his daughter, Eromi. Still from *A Northern Soul* (dir. Sean McAllister). Reproduced with permission of 10Ft Films.

of opportunity to build a political consensus and social majority around the kinds of planning, investment, and public ownership that will be needed to transition to a post-fossil fuel economy, as part of a coherent, long-term, integrated strategy and regulatory framework for addressing global warming.

A number of policies could be implemented quickly by an incoming progressive government. At the end of September 2018, the Vivergo Fuels biofuel plant, located just a few hundred metres along the estuary from the Greenport site on the Humber, closed with the loss of 150 jobs. The plant converted wheat from nearby farms into biofuel for vehicles. It was operational for only five years and was shuttered due to the current government's ongoing indecision on renewable energy policy, despite the clear transitional role is has to play in the move away from fossil fuels. A 'Community Right to Buy' scheme—whereby local communities have the first option to buy land or other assets when they are put up for sale or scheduled for closure—could see the Vivergo Fuels plant reopen under local or worker control.

Other policies will require longer-term investment and planning. The economist and Labour Party advisor Ann Pettifor recently called for the mobilization of a 'Carbon Army' and a 'Green New Deal' for the UK, in order to address both the impending climate crisis and the deep regional inequalities in the British economy (2018: 116–8). At the Labour Party conference in Liverpool in September 2018, Jeremy Corbyn formalised the proposals laid out by Pettifor, outlining the expansion of renewable energy provision, in order to create around 400,000 jobs and reduce the UK's carbon emissions to zero by 2050. Labour's plans would not only see the massive expansion of wind turbine manufacturing in places like Hull, but also the installation of solar panels and improvements in energy efficiency on a home by home basis, such that '*every one* of Britain's 27 million households becomes a power station' (Pettifor, 2018: 49, italics original).[7]

In Hull, the Goodwin Trust—a coalition of tenants' associations established on the city's Thornton Estate in 1994—has already begun tracing what this future might

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[7] The Institute for Public Policy Research's *A Distributed Energy Future for the UK: An Essay Collection* provides a more in-depth account of what the editors call 'Energy System 4.0': a decentralised and distributed energy system (2018: 6).

look like. The Trust recently built a block of 'eco-social housing', featuring various energy-saving measures and rooftop solar panels. These units provide a model for how much of the rest of the city might be refitted, as well as an example of how a future of renewed public ownership and investment could build on existing forms of municipal and community-led innovation. On a national scale, a revived Ministry of Technology, working in collaboration with universities and colleges, could direct and coordinate research, development and training, particularly job transition programmes for those currently working in fossil fuel industries (Stronge, 2018: 39).

Labour's plans should still be the subject of critique, of course. The recommendation of the recent Intergovernmental Panel on Climate Change (IPCC) report that global CO_2 emissions be reduced by 45% by 2030 suggests that Labour's plan for zero emissions by 2050 will need to be accelerated (IPCC, 2018). Further, Jeremy Corbyn's vague mention of 'low carbon sources' in his Liverpool speech probably signals a continuing role for nuclear energy. As Richard Seymour argues in detail, expanding nuclear energy generation, even as a supplement to renewables, would be an economic, infrastructural, and environmental mistake (2018). Like oil, gas, and coal, uranium is a finite resource, and there is evidence to suggest that all the available ore will be gone by the end of this century at the latest. Further, the management of nuclear waste creates long-term infrastructural 'dependencies', requiring money that would be better invested in renewables manufacturing and technology, such as the development of lithium ion batteries capable of storing electricity generated by wind and solar power (Seymour, 2018).

The precise details of the 'Green New Deal' outlined by Pettifor should also be the subject of ongoing deliberation. In particular, and despite its nostalgic name, the plan should not become a call for a return to full employment and the 40-hour working week. Instead, it presents the opportunity to fundamentally rethink our relationship to work and free time, and in particular to reclaim the notion of workplace 'flexibility' from the decollectivising tendencies of neoliberalism, in service of an employee-oriented and collective vision of the place of work in society.

In this sense, it is clear that large-scale renewable energy transition is a question not only of energy ownership and infrastructure, but also of social infrastructure, and particularly of state investment in social care, health, and education (Onaran, 2018: 187). The task of a future progressive government will not just be to roll back the worst effects of privatisation and austerity, but to fundamentally rethink the place of work, social care, and public life in a society where dependence on others is not the foundation for demonisation and stigmatisation, but the basis for collective wealth and happiness. The introduction of universal basic income (UBI) and universal basic services (UBS) (including transport, education, social care, childcare, and utilities) would provide the most immediately emancipatory element in a new social infrastructure. UBI and UBS could be implemented quickly and funded initially through increases in marginal and corporate tax rates, a land value tax, and a levy on the revenue of digital platforms like Facebook and Uber (Standing, 2018: 201–3). By providing a base-level of freedom—the freedom to refuse exploitative work and other oppressive relationships—UBI and UBS would alleviate the precarity and stress that currently dominate the lives of many.

Addressing inequality and lack of opportunity through devolved municipal power and new forms of public ownership, a 'Green New Deal', UBI and UBS would be significant steps in building a more equitable and sustainable future for the UK. Accompanying these policies on social infrastructure, there will need to be a similarly large-scale attempt to address the manifold forms of institutional racism in British society. Alongside anti-fascist and anti-racist organising and education rooted in local communities, future policy-making at a national level requires 'the recognition that racial inequality and racism are deeply embedded in British society. They are not only products of individual failings but institutionally embedded' (Goodfellow, 2018: 152).

Anti-racist teaching, particularly education on the history and legacies of the British Empire, will be central to any long-term attitudinal change. As Maya Goodfellow argues, anti-racist policies of this nature would be the target of voluble opposition from the right, not least because they 'go to the heart of [the] relationship between whiteness and national identity and the normalisation of

the racial hierarchy' (2018: 155). However, they are imperative in combating the racial inequalities in British society—inequalities that have been accentuated by austerity, which disproportionately impacts people of colour, and women of colour in particular—and its long history of anti-migrant politics (Goodfellow, 2018: 156). In the short term, the countering of the divisive discourse of a so-called 'white working class' with ostensibly 'legitimate concerns' about immigration and its effect on public services with an account of shared class interests is paramount. Gargi Bhattacharyya cogently describes the 'white working class' as 'the working class as reimagined through Thatcherism. Aspirant, atomized and defensively monocultural. And it is a framing that casts minoritized groups outside class identity altogether' (2017: 19).

Anti-racist education will be increasingly significant in the longer term, particularly as the distinction between migrants and refugees becomes gradually more blurred as a result of the consequences of global warming and environmental degradation. Precisely how the conceptual and legal status of 'climate refugees' will develop over the coming decades is unclear (Demos, 2016: 76–7). What is clear is that political adaptation to global warming in Europe has already taken the form of the effective outsourcing of border control to nations like Chad and Niger, in order to block potential migrants from reaching the continent at all. Contrary to the EU's claims, these schemes—which disassociate border locations from myriad, often violent, bordering practices—do not deter migrants from attempting to travel to Europe. Instead, they simply push the dangers of irregular migration further into the shadows, as undocumented migrants resort to increasingly dangerous routes in their attempts to reach Europe (International Organisation for Migration, 2017).

Goodfellow's comments on the role of anti-racist education in the rebuilding of British society also direct us to the difficult issue of the scalability of certain forms of climate politics. The policies outlined above around public ownership, decentralised energy provision, and expanded welfare would be contained within a particular nation, and a particularly wealthy nation in the global context at that. The relationship between intra- and international policies on both energy infrastructure and social infrastructure represents a significant challenge for any meaningful attempt to halt spiralling CO_2 emissions. After all, it is not difficult to envisage how increased

renewable energy provision and expanded welfare in nations in the Global North could dovetail with the protectionism and nativism that is central to the growing right-wing populist-autarky in Europe and North America. Indeed, in this scenario, large-scale offshore wind power arrays could be used to assert sovereignty over international waters, to the detriment of states in the Global South.

As I intimate in the first section above, while renewable energy production has increased enormously over the last three decades, the precise nature of how it has grown and in whose interests often remains undertheorised. As the work of numerous scholars in the growing field of the energy humanities makes clear, the current shape of renewable energy development and provision was not inevitable; alternative worlds can be made legible through political and cultural engagement with existing technologies and their affordances. Stories about energy futures are always also stories about power, in the dual sense of that word. In *Fossil Capital*, Malm lucidly describes both the necessity and the likely difficulties of a full renewable energy transition, particularly in terms of the forms of international collaboration and political action that would be needed. Nothing short of a planned economy for power, a *global* 'return to the flow', Malm argues, will be sufficient to keep temperatures below the 2°C rise above preindustrial levels identified as critical by climate scientists (2016: 367). Yet optimistic voices, most notably those of Mark A. Delucchi and Mark Z. Jacobson, argue that a 100% renewable energy global society is possible by 2050, with around 90% of energy needs supplied by wind and solar power (2011a). Further, Delucchi and Jacobson argue that this transition could be achieved using technology that already exists and that nearly all the raw materials required could be recycled from the existing fossil fuel infrastructure (2011b). In a recent study published in collaboration with scholars in Germany and Denmark, they also argue that a full transition would result in around a 40% *reduction* in energy use worldwide, largely due to the halt of the mining, transportation, processing, and combustion of fossil fuels (Jacobson et al., 2017). Solar and wind power are likely to be cheaper than fossil fuels before 2025, a calculation that does not even consider the vast state subsidies paid to energy companies each year, or the increasingly damaging impacts of global warming and the premature deaths caused by air

pollution. With these externalities of our current carbon society factored into the equation, renewable energy would already be significantly cheaper than fossil fuels, particularly in countries in the Global South (Malm, 2016: 368–9).

Delucchi and Jacobson argue that renewable energy transition should be thought of in terms of the 'bundling' of different types of renewable energy in different places, in order to overcome the variability of wind and solar power (2012: 483). Global collaboration, rather than renewables localism, is the key to energy transition on a large scale. The scale of the necessary energy transition is imposing, to say the least, yet as Malm emphasises, Delucchi and Jacobson's studies are the clearest and most detailed demonstration that the path towards a 'return to the flow' is blocked by obstacles that are political rather than technological. The 'super grids' and 'bundling' of renewable energy sources they outline are already technologically feasible but require a politics fundamentally incompatible with capitalist accumulation: long-term collaboration and mutual concession, municipal and state funding, investment, and ownership, and direct fossil fuel suppression (Malm, 2016: 381).

A global 'return to the flow' requires what Erik Olin Wright describes as the 'taming and erosion' of capitalism: the use of regulations and redistribution to counteract capitalism's tendency to generate harms, and an accompanying 'expansion of emancipatory forms of economic activity' (2015). It also requires an enormous shift of resources to the Global South—as part of an acknowledgment by nations in the Global North of their historical responsibility for global warming and its unequally-distributed effects—and a commitment to investments in renewable energy technologies and infrastructure beyond their own borders that are congruent with the historical legacies of colonialism and imperialism. At present, those countries with the most historical responsibility for mitigating global warming—the UK and US in particular—are compounding the crimes of the past by both stalling in their transitions away from fossil fuels and abdicating their responsibility to care for those who have been displaced by recent conflicts and climactic factors. As Françoise Vergès argues, we live not in the Anthropocene, but in the 'racial Capitalocene': the latter demands an account of climate change as the result not of generalised 'human hubris', but 'of the long history of colonialism and racial capitalism and

its Promethean thinking—the idea that "Man" can invent a mechanical, technical solution to any problem' (Vergès, 2017).

Amid the interwoven economic and environmental crises of the last decade and more, the Labour Party has the opportunity to build a clear case for a democratic socialist internationalism; that is, to explicitly connect domestic policies around energy provision and the welfare state to policies around migration, borders, and citizenship, in service of a long-term vision of global cooperation. The immediate end to the violent bordering practices described above (and the power of the corporate interests that currently maintain them) should be only the first step toward a politics that is not only anti-imperialist and welcoming of migrants, but that seeks to redress the long legacies of colonialism and imperialism, and the unequal ecological exchange that has been foundational for the prosperity of the Global North. As Vijay Prashad argues, there can be no meaningful analysis of our prospects for avoiding climate catastrophe without the discussion of public goods such as housing, transportation, and healthcare in both the Global North and South, or of the historical origins of the violent borders that lock those in the Global South into cycles of hyper-exploitation, in locations where climate change is already decimating environments and lives (2014: 291). In one sense, these broader considerations may seem to have taken us far from the banks of the Humber. But in another, of course, they return us right there, to the role of Hull and cities like it in any prospective *global* 'return to the flow'. As the gateway to the North Sea, Hull will have a particular role to play in regional and national energy policy; but in this vision of large-scale renewables transition, it would be one 'Energy City' among many.

Conclusion

In the preceding discussion, I have sought to move between the local, national, and global, and to connect a range of materials, in order to situate Hull's recent history in a broader discussion of visual culture, energy transition, political ecology, borders, and citizenship. Much of the impetus for this approach came from the early months of 2017, and in particular from Kulkarni's *Blade*. Alongside the ambitious, if flawed Hull City Plan, Kulkarni's installation captured a sense of guarded optimism in the city. Kulkarni discussed at the time how, as a symbol of the return of manufacturing

employment after a long period of economic and social decline, *Blade* invoked a 'hopeful' future for Hull's residents. Yet as I discuss, and as Kulkarni acknowledged, *Blade* raised difficult questions about the precise character of that future and how we might get there. In so doing, *Blade* also raised important questions around the role of art in a time of climate crisis: how can art respond to interwoven economic and environmental crises? can it help to foster new modes of accountability in the present? how can art address manifold injustices taking place at multiple scales—the regional, national, and global—and over multiple timeframes?

There are no simple answers to these questions. What is clear, though, is that large corporations like Siemens are already deeply invested in making particular worlds come into view, worlds in which they remain indispensable and the profit motive remains paramount.[8] As I argue throughout, some futures will be no future at all. A 'green capitalism'—in which the global economy still cleaves to the class interests of corporations and the wealthy—is beset by inherent contradictions. For all their self-proclaimed 'green' credentials, Siemens have repeatedly demonstrated that they will turn to renewable energy production only on the condition that it is profitable; like all corporations, they 'can attend to no other bottom line' (Malm, 2016: 381). More broadly, neoliberalism's atomising logic of consumer choice and competition has leant itself to a deliberate obfuscation on the part of corporations and governments as to the role of collective action in addressing climate change.

As I argue in the second section, the effects of global warming will soon exacerbate existing inequalities both within and between nations. Increasing levels of migration will provide additional opportunities for demagogic right-wing leaders to further demonise migrants, entrenching ever more deeply what Liz Fekete (2018) calls the political 'convergence' of far-right and centre-right across Europe since the early 1990s. This is a convergence not just between 'the ideologies of political

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[8] Though it is not possible to discuss it in detail here, Siemens's recent MindSphere demo provides a good example of how corporations imagine the future (https://siemens.mindsphere.io/en/live-demo). In a Wes Anderson-style animation, a miniaturised world runs like clockwork thanks to an array of Siemens technologies and data-gathering techniques—this is a world in which social and political antagonism is decisively overwritten by algorithmic governance.

parties' around questions of asylum and migration Fekete argues, but also between 'transnational capital, the military-security-industrial complex, media barons and the powerful law-and-order lobbies' (Fekete, 2018: 38). Larsen's *Quicksand* attests to how difficult it can be to imagine a future beyond fossil capitalism and its increasingly cruel and violent border regimes.

As I contend in my third section, it seems clear that the renewal of the very idea of democratic, collective control over the future will be fundamental to any meaningful opposition to this vision, as well as to the global 'return to the flow' traced by Malm. Climate crisis calls not for undemocratic technocracy—and especially not for the reckless forms of geoengineering seemingly so beloved of Silicon Valley billionaires—but for more democratisation. It also calls for the wholesale decommodification of the basic tenants of everyday life, the expropriation of the wealth of the malignant and heavily subsidised fossil fuel industry and large corporations like Siemens, and the fundamental rethinking (and eventually the outright abolition) of the exclusionary capacities of national borders.[9]

The centrality of questions around power, climate, and migration to Hull's year as City of Culture provides a valuable opportunity to think further about the social and cultural framing of energy technologies, at multiple scales. In this vein, and to close, I want to argue that a vital thread between the local and global is a sense not only of shared vulnerability, but also of the possibilities for shared prosperity and public affluence. As Matthew Huber argues, 'climate solidarity cannot only be forged in reaction to the devastating effects of climate change'. It 'must also be about a more positive story: "a world to win." This means connecting struggles across the globe that seek to decommodify the critical necessities of life: food, housing, healthcare, and, for climate, most of all, energy' (Huber, 2018). This is, in many ways,

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[9] The Institute for Public Policy Research's recent *Commission on Economic Justice*, openDemocracy's *New Thinking for the British Economy* essay collection (2018), and *Economics for the Many* (2018), edited by Shadow Chancellor for the Exchequer, John McDonnell, to take just a handful of recent examples, all examine in detail what it will take to build a left-wing politics fit for the interwoven social, economic, and environmental challenges of the twenty-first century. All have been germane to my thinking in this essay.

a utopian vision, particularly in the face of a resurgent far-right across the globe and the increasingly protectionist autarky of powerful states in the Global North, amid the slow breakdown of the neoliberal order. Herein lies a momentous political challenge for our times. Lynne Segal concludes her 2017 book *Radical Happiness* with an account of how the envisioning of a more 'equitable, fairer and peaceful world', itself brings a 'certain audacity and energy to life, at least in the sharing of such imaginings' (2017: 268). This audacity, and the energy it generates, may be some of the most valuable renewable resources we have.

Acknowledgements

Competing Interests

The author has no competing interests to declare.

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