

Revisiting power and powerlessness: Speculating on West Virginia's energy future and the externalities of the socioecological fix

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journals.sagepub.com/home/ene**Dylan M Harris**  and **James McCarthy**

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Abstract

China is positioning itself as a global leader in *both* renewable energy research, development, and deployment, *and* fossil fuel investment, exploration, and consumption. The newly merged mega-company, China Energy Investment Corp., has agreed to invest an unprecedented \$83.7 billion into shale gas, power, and chemical projects in West Virginia. This decision comes after a visit to China by the United States' President Trump, during which he secured professed commitments for over \$250 billion in energy investments across the United States. While investment and dispossession in Appalachia have long been international in scope, the scale of this investment, as well as its particular political-historical context, makes this case unique. This paper analyzes two key processes central to this conjuncture in West Virginia's recent history. First, building on recent scholarship, it argues that the ways in which the social and environmental costs of meeting China's energy needs are increasingly being externalized into global "sacrifice zones" at global scales, even as China is making massive domestic investments in renewable energy, may constitute a sort of regional "socioecological fix" to the environmental effects of capitalist development. Second, via a consideration of Gaventa's classic and more recent analyses of power and powerlessness in an Appalachian coal community, it explores why and how political assent to such development—which seems to reprise so many historical patterns that local critics decry—is secured in West Virginia. In doing so, it pays particular attention to the ways in which these familiar processes are playing out in a distinctive contemporary context, one characterized by a combination of populist and authoritarian politics that, in the United States, have touted false promises to "bring back coal" and rejuvenate a struggling local economy, and in China have led an authoritarian state to maintain economic growth for the nation at all costs.

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Energy, climate change, authoritarian populism, Appalachia

*In West Virginia, as in China, a vast storehouse
of history lies beneath the official fabrication.*

David Allan Corbin (1990: ii)

Introduction

The 2017 World Energy Outlook, which surveys the current state of global energy demands, writes, “When China changes, everything changes” (IEA, 2017a). China, now the world’s second largest economy and largest emitter of CO₂ globally, has made promises to transition from a fossil fuel giant to a green energy colossus (Phillips, 2017). However, in addition to these promises, China has also become a world leader in foreign fossil fuel investment, exploration, and production. For example, China recently signed of a memorandum of understanding (MOU) promising \$250 billion in energy investments across the United States (Polson, 2017). Of this MOU, \$83.7 billion, an amount far exceeding the state’s typical GDP, was promised to the state of West Virginia for investment in natural gas production and chemical manufacturing. The deal is meant to bolster the state’s struggling economy, which has historically depended on fossil fuel extraction.

At first glance, this deal might seem paradoxical: a country professing a commitment to a transition to a green economy making major investments in fossil fuel industries in a classic coal producing region; a state often taken in national politics as typifying the xenophobia and resentment of the loss of U.S. hegemony that propelled Trump to the presidency welcoming massive foreign investment from China. Yet in this paper, we argue that this superficially paradoxical deal is not contradictory in the least. While Chinese investment in West Virginia might rub uneasily against the politics above, the basic pattern it represents, of foreign capital investing in extractive energy production in the state’s resource-rich landscape for consumption and accumulation elsewhere, is perfectly continuous with West Virginia’s history. Moreover, we argue that the deal must be understood in the context of two significant developments. First, while foreign investment in extractive energy production to maintain economic growth is certainly not a new phenomenon, the relationship between energy production, economic growth, and climate change presents new and emergent challenges. With this in mind, we argue that China’s investment in fossil fuel production abroad—in a state that has been historically dispossessed of its natural resources—can be seen as an “externality” to what McCarthy (2015) theorizes as a possible “socioecological fix.” Second, it takes place amidst recent shifts toward authoritarian and populist politics across the world, including in the United States and China, which articulate to enable the kind of large-scale investments seen in the Chinese–West Virginian MOU. We are not making the case for a symmetrical relationship between the rise, or persistence, of populist and authoritarian politics in the United States and China. This article focuses on the shifting terrain of resource politics in West Virginia. But we argue that this terrain is inescapably global in important respects and must be understood in light of recent articulations between energy, climate, and politics in, among other places, China. In order to better understand the geographical and historical context of the above deal, we revisit Gaventa’s (1982)

examination of power and powerlessness in an Appalachian coal community. We argue that Gaventa's book, written over three decades ago, is as relevant as ever for understanding how Appalachia continues to be a resource colony for global capitalist development. Though the MOU between China and West Virginia is not yet finalized, we argue that growing acceptance of the deal—as evidenced by local elites' activities in West Virginia—build upon these histories. Further, while there have been a few op-eds written about the potential pitfalls of the deal (Lucas, 2017; Ward, 2017), a relative acceptance of the MOU can be ascertained by the general lack of opposition to it. This lack of opposition is, we argue, part of the legacy Gaventa (1982) outlines in his work. Moreover, his more recent work continues to provide fresh insights into understanding the spaces in which power operates to allow for the continued dispossession and oppression of people and resources in light of globalized capitalist development and contemporary climate change.

Our argument proceeds as follows. The first section reviews recent work on “socioecological fixes,” suggesting that recent literature on this topic has understated their complex geographies and ignored their potential externalities. The second revisits Gaventa's (1982) work on power and powerlessness, paying special attention to what he terms the “the third dimension of power,” and to the ways in which historical power struggles over energy and resources persist in present-day Appalachia, and in West Virginia in particular. It goes on to situate these dynamics relative to the interconnected issues of energy and the rise of authoritarian and populist politics. The third reviews both the meteoric rise in China's energy use, emphasizing how and why the country's current largely fossil fuel-based economy is shifting in light of mounting environmental crises, and the long history of West Virginia's relationship to energy production and its place in the state's cultural politics, situating how the state is currently being positioned relative to growing global energy demands. The fourth brings these strands together, interpreting China's energy predicament, the recent Chinese MOU for investment in West Virginian energy, and local reactions to that MOU in West Virginia, relative to the dynamics of a potential “socioecological fix” to capitalist development.

Externalizing the costs of socioecological fixes

Capitalism is a set of social and socioecological relationships predicated on unending growth, ever-expanding transformations of the material world, and profound inequality and unevenness of many sorts. For these and other reasons, it is prone to periodic crises of multiple sorts and degrees of severity, in which the steady circulation and expansion of capital is interrupted and perhaps threatened at a systemic scale. One of David Harvey's enduring contributions to the integration of Marxist and geographic theory was to posit the possibility of “spatial fixes” to capitalist crises, in which capitalists temporarily resolve, or at least postpone the realization of, crisis tendencies through their control over space and capital—for example, by finding new and cheaper inputs, whether of raw materials or labor; finding or creating new markets, by force if necessary; or, most paradigmatically, by investing large amounts of otherwise over-accumulated capital into infrastructure or production facilities in new locations, where its value might not be realized for a long time (Harvey, 1982). Notably, many of these “fixes” require the exercise of a state's sovereign powers, whether that be in the form of declaring war (or a trade war (Berman, 2018)), legally enclosing common resources, coordinating and financing large, long-term projects that require a state's ability to borrow without collateral, or other such interventions.

More recently, in the context of increased attention to the fact that capitalism is always, necessarily, a set of socioecological relations as well as social relations, and to the fact that

environmental dynamics may be important sources or sites of crisis for the reproduction and expansion of capital accumulation, a number of authors have speculated about the possibility of “socioecological fixes” to capitalist crises, in which the reconfiguration of socio-natural relationships may figure as or more centrally in the abatement or resolution of crises as the more “social” measures above (see, for example, Bakker, 2009; Ekers and Prudham, 2015, 2017a, 2017b; McCarthy, 2015). In part, this is simply about recognizing that each of the much-studied “fixes” to crises mentioned in the preceding paragraph has its ecological components as well: appropriating elements of the environment as “natural resources,” transforming landscapes through construction, using more fuel and packaging to ship more commodities greater distances, and so on. But it is also about emphasizing the extent to which contemporary capitalist crises and their fixes turn directly and overtly on ecological dynamics and relations: e.g. if scarcities of food, fuel, or water appear to threaten future accumulation, we see a global land rush in response; if centuries of traffic in living commodities and climate change spread diseases, we consider gene drives to combat that spread; if mounting climate change threatens accumulation, renewable energy and geoengineering of the climate are proffered as new industries.

Important gaps in this recent literature on socioecological fixes are that the great majority of it has either been quite abstract, theorizing socioecological fixes as a possibility rather than analyzing specific empirical instances of such fixes (e.g. Bakker, 2009; Ekers and Prudham, 2015, 2017a, 2017b), or, as noted in the examples above, focused at the global scale, with relatively little attention to the specific geographies of crises and putative fixes (e.g. Surprise, 2018; 2019 on geoengineering, or McCarthy (2015) on a global transition to renewable energy, as

“fixes” to climate change conceived as a global-scale crisis). Several central aspects of earlier work on spatial fixes have somewhat fallen by the wayside in these debates, yet are, we suggest, equally relevant to socioecological fixes: (1) like spatial fixes, these fixes can take place at a range of different scales, including from the national to regional or local; (2) one of the most important things about them is therefore that they can link different, sometimes distant places, as the crisis in one is resolved via a fix in another (think, e.g. of environmental gains made in one place by off-shoring pollution or production itself to another); and (3) such scenarios raise important questions about how, in particular, the negative aspects of being the site of a “fix” to a crisis elsewhere are managed politically. In short, a “fix” for one place, even one successful on its own terms at a certain scale, might well entail social or environmental degradation in another place. Ekers and Prudham (2017b: 10) observe that, “socioecological fixes might not and sometimes do not succeed on their own terms.” Our point, though, is that even when they do, they might well have externalities of their own, rather than being systemic or global along the lines sometimes implied in recent literature. In other words, being the site of a fix can, at times, mean a simple infusion of investment and the development of infrastructure—never an apolitical process, of course, but one relatively unlikely to provoke massive resistance either. But it can also mean being treated as what Kuletz (1998) once termed a “sacrifice zone,” in which the negative environmental externalities of processes elsewhere are concentrated into an area considered acceptable to degrade. We suggest that recent scholarship on socioecological fixes has paid too little attention to such possibilities, and that we can see such a dynamic taking shape in the evolving relationship between China and West Virginia.

From this perspective, it is entirely consistent for China to be ambitiously researching and deploying renewable energy technologies within its own national territory, both to maximize energy supply and to respond to domestic political pressure regarding pollution (see also Nugent, 2015, on air pollution), at the same time it is aggressively seeking to develop and

secure access to new fossil fuel deposits elsewhere in the world, and in West Virginia in particular. West Virginian natural gas might come to occupy essentially the same role as Angolan or South Sudanese oil in China's energy portfolio, while Chinese capital may come to play roughly the same role in West Virginia's economy by 2025 as New York capital did in 1925.

What is less obvious, perhaps, is why West Virginia might so eagerly welcome this influx of investment that seemingly threatens to reproduce the much-criticized pattern of extra-local capital extracting fossil fuel resources from the state, with all of the social and ecological costs that extraction entails. It is all the more puzzling since sending natural gas to China is difficult to reconcile with a dominant local narrative of taking pride in providing energy specifically for the nation. We believe that Gaventa's classic work on hegemony in Appalachia, as well as more recent work in the same tradition, including consideration of how such embedded hegemonic formations articulate with recent turns toward authoritarian and populist politics around the world, can help us to understand why and how this wave of Chinese investment has been welcomed, or at least accepted, in West Virginia, despite the latter often being cast as the heart of "Trump Country" (e.g. Trump polled at 68.5% in West Virginia in the 2016 election).

Revisiting power and powerlessness to situate West Virginia's contemporary politics

Written over three decades ago, John Gaventa's book *Power and Powerlessness* begins with the following questions:

Why, in a social relationship involving the domination of a non-élite by an élite, does challenge to that domination not occur? What is there in certain situations of social deprivation that prevents issues from arising, grievances from being voiced, or interests from being recognized? (1982: 3)

Gaventa goes on to argue that patterns of power produce quiescence, while a fundamental restructuring of those patterns can lead to rebellion. He applies this framework to an in-depth case study of the Clear Fork Valley, a once-thriving coal-mining valley located near the Cumberland Gap and situated between parts of Tennessee and Kentucky. The China–West Virginia investment deal we explore here takes place in the same general region of Appalachia and, we argue, in a social and environmental context in which the complex relationship between quiescence and rebellion Gaventa charts continues to apply. The fact that global developments work through local places is as relevant as ever to an understanding of modern-day Appalachia, including West Virginia (Eller, 2013; Gaventa, 2019; Kingsolver, 2018).

Gaventa's (1982) work has been both criticized and built upon, including by Gaventa himself. But in order to better understand the enduring relevance of that work to contemporary Appalachia, it is critical to begin by revisiting its main arguments. *Power and Powerlessness* operationalizes Steven Lukes's (1974) tripartite conceptual framework for thinking about how power works.

Lukes sketches out three different ways of thinking about power in political contexts. The first, "one-dimensional," approach conceives of power in terms of what we would characterize as naïve liberalism: it focuses largely on participation, and assumes that everyone is able to participate in political processes, that political actors and structures represent

and are responsive to the full public, and that issues are addressed through transparent political bargaining. While far from reality in many respects, it does open the door to analysis of formal political structures on their own terms. The second, “two-dimensional,” approach recognizes that many categories of people may be formally barred from participation in public life or politics (on the basis of, e.g. gender, race, or immigration status) (see also Bachrach and Baratz, 1970; Gaventa, 1982: 14). Critically, non-participants still want to, and may eventually be able to, participate in political life, despite fear or oppression in the way of such participation. Today, we might be more likely to turn instead to Agamben (1995), Ranciere (2010), Arendt (1968), or Wynter and McKittrick (2015) to consider the same basic dynamics of who is or is not recognized and included as a fully political being. For now, the key point here is that in both the first and second dimensions, individuals or groups are at least aware of their grievances and desire to act on them through formal political structures. By contrast, the third, “three-dimensional” approach to power emphasizes that oppressed individuals or groups may not even consider the possibility that they can or should claim a grievance, or that anyone would listen if they did. In short, it dives into the terrain of cultural politics and hegemony.

In a foundational intervention in the field, Gaventa (1982: 15) contends that this third dimension of power remains, “[b]y far the least developed and least understood,” and uses Gramsci’s theory of hegemony to explain how this approach to power is operationalized in practice. Gaventa details how a hegemonic system is established through a combination of both consent and coercion, one that works to clearly define a set of spoken and unspoken rules, bar serious consideration of any alternatives, and establishes the moral legitimacy of the elite. Power and powerlessness work in tandem, as power establishes powerlessness as a social and political norm, resulting in a pervasive sense of powerlessness that “may manifest itself as extensive fatalism, self-deprecation, or undue apathy about one’s situation” (Gaventa, 1982: 17).

In this scenario, the powerless are not entirely passive, but through exposure to hegemonic norms, their demands may lessen—or, indeed, never crystalize in the first place—as they are exposed to and come to accept as right and natural the rules, beliefs, and values of the powerful. Whereas the first two approaches to power considered how individuals or groups make political decisions or take political action, or at least strive to do so, this approach to power explains why many oppressed and dispossessed individuals and groups may not even conceive of certain decisions or actions as possible ones, or of themselves as actors who might potentially undertake them, and therefore do not challenge their own domination. While this approach to power is not entirely totalizing or hopeless, it does focus on structures that are politically pervasive and socially persistent over time. Indeed, Gaventa (2019: 442) recently argues that, while much has changed over the last three decades, “much has remained the same, and if anything, the underlying structures of poverty and inequality have deepened and spread.” Nearly 30 years on, Gaventa’s work still provides key insights into understanding the way hegemony operates in contemporary Appalachia, entrenching itself in patterns of rebellion and quiescence.

However, there are both limits and updates to Gaventa’s analysis, some of the latter coming from Gaventa himself in a recent (2019) piece reflecting on his earlier work. The first, as Gaventa notes himself, is that hegemony is not absolute: *Power and Powerlessness* discusses various ruptures that occur in the Clear Fork Valley, and one need to look no further than West Virginia’s infamous mine wars to understand that powerlessness, while pervasive, need not be permanent (Corbin, 1990; Harris, 2017; Savage, 1990). As Scott suggested in a critique of *Power and Powerlessness* (1990), no system is entirely hegemonic because there is always some form of resistance. Again, in a recent work,

Gaventa (2019) himself highlights the various strains of resistance that persist in the region. The recent victory by West Virginia's public school teachers' strike is further evidence of the possibility of challenge and change (Birdgood, 2018; Catte and Salfia, 2018). A second limitation is that the dichotomies of oppressor and oppressed, domination and resistance, are often blurrier in practice than Gaventa's original analysis suggested: political ecology has long emphasized the internal stratification of many communities, and the presence of local elites who often ally themselves with and benefit from extra-local domination and extraction (see also Fisher and Smith, 2016).

A third recent addition to Gaventa's framework, one especially salient for geography, is that there has been increased attention in recent years to not just what power is (Svarstad et al., 2018) and how it operates, but to *where* it works (Ahlborg and Nightingale, 2018), thereby placing and spatializing the dimensions of power framework. "Power is related to the spaces in which people operate," Gaventa (2018: 101) writes. Spaces in which deals like China's recent MOU are made are what Gaventa (2018: 101) considers "uninvited spaces of participation," which are "spaces where bureaucrats, experts, elected officials, and others make decisions with little consultations with or involvement of citizens." This MOU and those who are orchestrating its implementation are building upon a legacy of absentee land ownership and exploitation by entities external to Appalachia. This particular deal, like many others previous to it, is, as Gaventa (2019: 443) argues, "opaque at best due to the financial maze which surrounds it." Understanding how the third dimension of power operates within certain spaces (e.g. behind closed doors and without participation), helps us to detail the ways in the power continues to structurally create powerlessness, by simply not allowing people the space to resist large-scale dispossession, for example. This is nowhere truer than the energy landscape of West Virginia, which has historically depended on coal production by and for external entities.

A careful reconsideration of Gaventa's analysis of hegemony in Appalachia positions us to better understand the ways in which deeply rooted regional politics articulate with the recent worldwide turn toward authoritarian and populist politics. And they do: Trump's populist politics seem to graft seamlessly onto the region's deeply entrenched political culture. Yet these politics, and their specific local articulations, take place within a global context: Trump's visit to China and the MOU he secured there for Chinese investment in energy production in Appalachia took place within, and are inexplicable without reference to, a global turn toward sharply populist and authoritarian politics in many countries around the world (Albright, 2018; Bello, 2018; McCarthy, 2019; Scoones et al., 2018; Snyder, 2017).

We root the recent, pronounced turn toward populist and authoritarian politics in both the failures and the successes of neoliberalism over the past several decades. First we discuss the failures, at least from the perspectives of many. Decades of increasingly liberal trade policies and agreements, more integrated multi-state financial and immigration policies, and the pursuit of export-oriented "comparative advantage" strategies, not least in natural resource sectors, have failed to deliver the widespread prosperity their architects promised. Many countries have instead seen sharply rising inequality paired with steep reductions in social spending and safety nets, just as the latter are most needed. Cheaper consumer goods have proved poor compensation for the loss of work, dignity, and sense of full citizenship (Bessner and Sparke, 2017; Fraser, 2017). Populism has been one response, with powerful social movements and associated political parties calling for protectionist economic policies, hardened borders, and isolationist and nationally self-interested foreign policy—in short, for the nation to be of and for "the people," with the latter often defined in explicitly racialized, xenophobic, and reactionary terms (Brown, 2019; Snyder, 2017). Much of contemporary

politics in the United States, including dominant politics in West Virginia, certainly fits this description. Some of these developments, at least, can be understood as responses to the failures of neoliberalism to deliver its promised economic utopia. (Whether neoliberalism succeeded in its actual agenda is another story: if its real purpose was to restore class power, privilege, and the gross maldistribution of surplus, as Harvey (2005; see also Peck, 2010) contends, the project has been a stunning success.)

To explain authoritarianism, though, we suggest that we need to look also at neoliberalism's successes, first and foremost its stunningly effective de-legitimation of the social welfare or developmental state. After all, if people were dissatisfied with the direction or results of particular policies, the most obvious solution in a functioning democracy without major formal categorical exclusions from the political process would appear to be to vote into power representatives of a party that promised to take things in a different direction. While the major parties in many countries have been complicit in implementing and institutionalizing core elements of the neoliberal agenda over the past several decades, citizens are assured that changes to this agenda could take place through sufficient voting strategies. We suggest, though, that neoliberalism has been extremely effective in casting doubt on the legitimacy and effectiveness of the bureaucratic state as a means to achieve policy goals, or indeed a means to pursue any broader visions of the social or political (Brown, 2019): for decades, people have received remarkably strong and consistent messages that the state is intrusive and antithetical to freedom, that it is controlled by special interests, and that it is at best ponderously slow and cumbersome, unable to act quickly or effectively on urgent matters. (The irony, of course, is that in many countries, and certainly in the United States, rhetorical conservative contempt for and dismissal of the state have proceeded in lockstep with a strategic, systematic, and nearly wholesale capture of the state apparatus.) From such a perspective, voting different people who will operate by the same rules into office would appear a futile response to genuine crises. So, instead we get the classic figure of the "strong man," the authoritarian figure (nearly always male) who will cut through the bureaucracy and norms to get things done quickly and decisively. The ascendance of such figures is a prominent feature of contemporary politics throughout much of the world.

Authoritarianism and populism are also deeply interwoven with the politics and political economy of energy: from the brutal authoritarianism that has long defined the politics of many oil-producing countries (see Koch and Perreault, 2019; Le Billon, 2005; Watts and Kashi, 2008) to the fact that many post-neoliberal states in Latin America's "pink tide" have ended up having to rely on continued oil revenues to deliver on their left-wing populist promises (Bebbington and Bury, 2013), we can see that populism, authoritarianism, and energy politics can and do combine into multiple different complex configurations, often some variant of resource nationalism (see Brown, 2019, for a genealogy of some of these superficially contradictory political formations; Mann and Wainwright, 2018, for a rigorous meditation on where they might go in the future, and Koch and Perreault, 2019, for a review of various sorts of resource nationalisms). A full review of such actual and potential formations is far beyond the scope of this paper, but in the following section, we sketch out some of the ways in which the politics of energy, populism, and authoritarianism in contemporary China articulate with those in West Virginia, in ways that can be better understood through the theoretical frameworks above, regarding socioecological fixes and hegemony. More specifically, we discuss how a proposed socioecological fix to capitalist development in China externalizes its costs—the need to subsidize green energy with fossil fuels extracted from elsewhere—into West Virginia, a state with a history of resource extraction, a struggling economy, and an identity tied to energy production.

Articulating the politics of energy, populism, and authoritarianism in and between China and West Virginia

Picking up where the previous section left off, we note that the global spread of neoliberalism is inextricably linked to the rise of a truly global energy market: when OPEC flexed its members' nationalist muscles in the early 1970s through an oil embargo and other means—a show of strength and unity with connections to the politics of decolonization and Third World solidarity—the most powerful countries of the global North responded by aggressively developing new sources of oil on the one hand, and forging a truly global market in oil on the other. Without that global energy market, as well as the subsequent creation and dramatic expansion of the WTO and China's entry into it, China's rapid industrialization, urbanization, and economic and geopolitical ascendancy would have followed a very different trajectory at the least. In the United States, meanwhile, energy has become an intensely political and partisan issue, with outright denial of the clear science of climate change and enthusiasm for increased domestic fossil fuel production becoming core features of the identities of the Republican Party and its most reliable voters. Politically, much of the incredibly oil-dependent United States never entirely got over oil shocks of the early 1970s and the realization that some post-colonial countries in the global South held significant power over the United States and its petroleum-based “way of life” (Huber, 2013). The politics of aggressive domestic fossil fuel exploration and extraction and the search for so-called energy independence are inseparable from that particular sort of aggrieved and entitled nationalism (Sarah Palin and “drill baby drill” being of course the iconic symbols of this impulse). This political configuration is perhaps nowhere more evident and deeply entrenched than in Appalachia and West Virginia, where environmental regulations are blamed for supposedly dramatically curtailing coal production for all of the negative trends of the past several decades and many people pin all of their hopes for the future on the continuation, if not dramatic expansion, of coal production (e.g. Dickerson, 2019). The very fact that narratives with such extraordinarily tenuous factual bases are embraced and repeated with such fervor by people fully cognizant of the damage wrought by over a century of absentee-dominated coal production is testament to the power of right-wing propaganda mills to be sure, but also to the enduring hold of the sorts of hegemonic cultural formations and politics analyzed by Gaventa some 35 years ago. In the following subsections, we explore these dynamics in greater depth. Our analytical goal and focus is an understanding of how and why China's energy investment in West Virginia has been greeted with such enthusiasm in the state. Yet such an explanation requires at least some, admittedly relatively broad-brush, contextual discussion of relevant energy dynamics and politics in China. We thus turn to these before returning to a more in-depth discussion of the cultural politics of energy in West Virginia.

Tensions in China's growing energy use

China's meteoric growth over the past several decades, and the industrialization, urbanization, and growing economic and geopolitical power that have been central elements of it, has been fueled overwhelmingly by fossil fuels, both domestic and imported (see Figures 1 and 2). It has also been overseen by an authoritarian state governing what is by most standards a robust capitalist economy. That configuration may or may not be paradoxical (we think not), but it certainly introduces important tensions. Many analyses suggest that the governing Communist Party must continue to deliver economic growth in order to retain its tight hold on power. That growth, in turn, requires energy. Yet at the same time, mounting

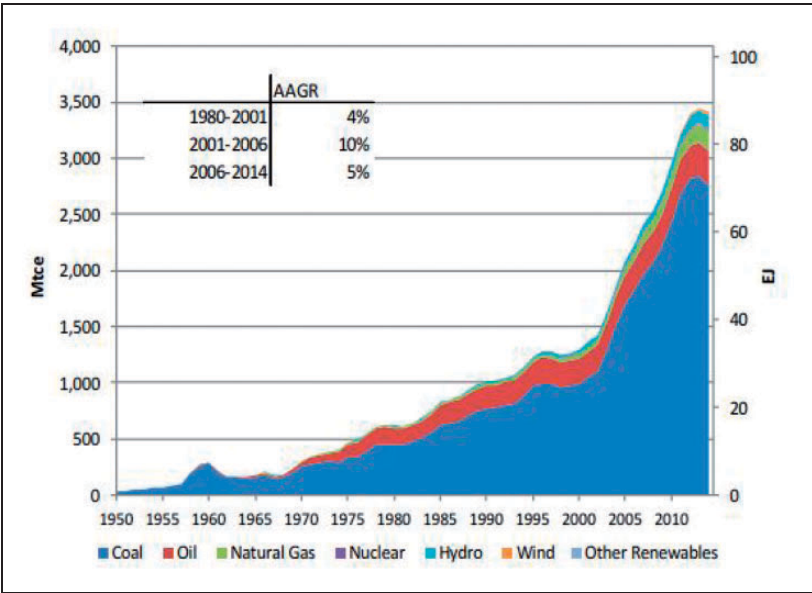


Figure 1. China's total primary energy production by source (1950–2014).
Source: Reprinted with permission from Fridley et al. (2017).

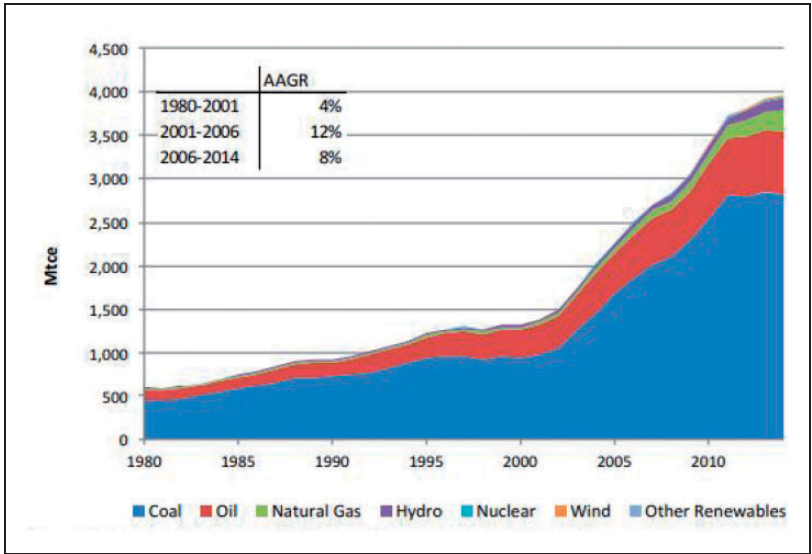


Figure 2. China's total primary energy consumption by source (1980–2014). Note: Natural gas includes LNG. Primary electricity is converted at its calorific value (1 kWh=0.1229 kgce).
Source: Reprinted with permission from Fridley et al. (2017).

pollution is an increasingly central and overt political issue in China, one with the potential to challenge the legitimacy of the Party and state (Isoaho et al., 2017). In short, China's unique blend of authoritarian political rule and a capitalist economy, now the second largest in the world (McCurry and Kollwe, 2011), is facing pressure as demands for environmental well-being on the one hand and ever-increasing energy consumption on the other come into conflict (Xu and Mason, 2017). Both cleaner and additional sources of energy are, then, political imperatives for the Chinese state.

China's production of oil and, especially, coal has increased dramatically since the 1950s (see Figure 1), with an especially steep rise post-2000, a history that corresponds to China's increased coal and oil consumption (see Figure 2). There has been a slight decrease in production since 2010 (Fridley et al., 2017). This decrease has been linked to what Qi et al. (2016) argue is a peak in China's coal consumption, leading to a decoupling of China's economic growth and coal production. However, a more critical reading would link China's decreasing coal usage to the nation's glut in coal due to overproduction, which can be traced to 2012 (Bai et al., 2018). Regardless of declines in coal and oil production and consumption, coal and oil still constitute the majority of China's energy mix. However, mindful of its mounting environmental crises and the need to maintain meteoric growth, China has recently turned toward diversifying its energy mix, calling for an increase in cleaner energy sources like natural gas and renewable energies.

During the keynote address of the 2017 *World Economic Forum* in Davos, Chinese President Xi said, "It is important to protect the environment while pursuing economic and social progress so as to achieve harmony between man and nature and between man and society" (see China.org, 2017). In the speech, President Xi discussed the meteoric rise of China's economy—which has so famously brought nearly three-quarters of a billion people out of poverty over the past 20 years (China Renewable Energy Outlook (CREO), 2017)—and argued in defense of more intensified globalization in the face of stagnant global markets. This growth, however, has come at a cost. Images of smog rolling across Tiananmen Square in Beijing regularly circulate on both Chinese and international media, drawing attention to the country's mounting environmental crises, brought about by fossil fuel consumption (Griggs, 2017). The rise in pollution in cities like Beijing can be directly linked to China's economic growth, and increasing criticism and activism regarding it, some argue, may lead to economic stagnation and questions of legitimacy among the country's ruling party (Albert and Xu, 2016; Isoaho et al., 2017). It is in this context that, despite being one of the world's largest producers and consumers of both coal and oil (Fridley et al., 2017), and overtaking the United States in recent years as the world's largest emitter of CO₂ (Union of Concerned Scientists (UOCS), 2017), China is also making strides toward becoming a world-leader in clean and renewable energy production: facing environmental crises, China's ruling party aims to decrease its production of coal and oil and increase its clean and renewable energy infrastructure over the coming decades. The country has a clear industrial policy in this sector, spends unparalleled amounts on research and development of renewable energy technologies, and continues to build massive, iconic renewable energy projects (Bradsher and Friedman, 2017; Fridley et al., 2017; Garfield, 2017; McBride, 2018; Phillips, 2017).

Yet, even as China is becoming a world leader in renewable energy, its projected energy use continues to rise, and much of that future energy is projected to come from natural gas. According to the 2017 *World Energy Outlook*, "China is changing and its energy future promises to be quite different from its energy past" (IEA, 2017b). Figure 3 shows the projected capacity for new energy futures in China under the IEA's *New Policy Scenario*.¹ While coal and oil consumption will remain in the energy mix, they are expected

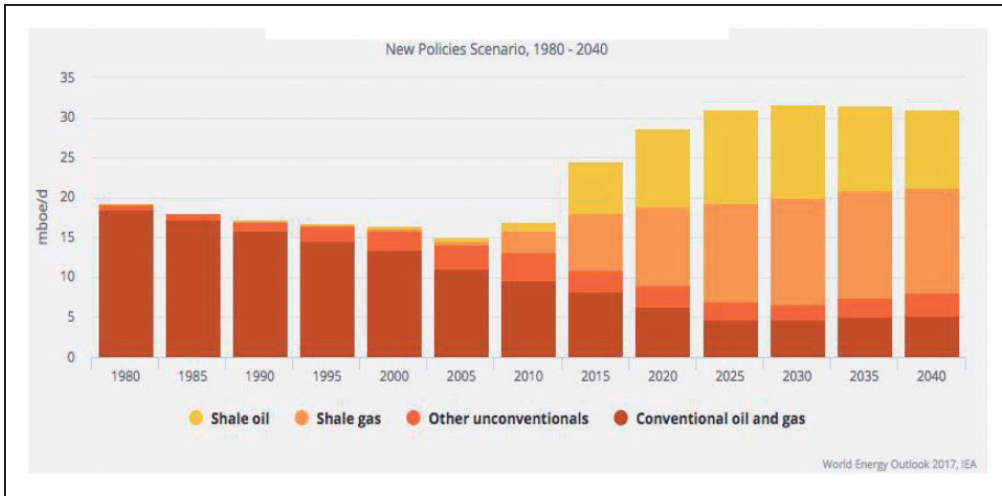


Figure 3. Oil and gas production in the United States (New Policies Scenario, 1980–2040). Source: Reprinted with permission from IEA (2017a).

to peak in the next decade or so, while natural gas and renewables are expected to increase exponentially. Since 2000, China's consumption of natural gas has increased at a rate of 15.3% a year (Fridley et al., 2017), and it is on track toward becoming the world leader in natural gas consumption.

This growing demand for natural gas in China comes at a time when the United States is seeking to become a major energy exporter—of fracked natural gas, in particular—under the *New Policy Scenario*. The United States has recently harnessed “a remarkable ability to unlock new resources” through its “shale revolution” (IEA, 2017a). Figure 4 shows the expected uptick in U.S. oil and gas production, as it moves from being a net importer to a net exporter of energy. Meanwhile, the Trump administration in particular has made much of its promises to bring jobs back to an economically downtrodden region that has historically leaned upon energy production. We see these trends coming together in China's recent promises to invest nearly \$250 billion in energy production and chemical manufacturing in the United States, with \$87.3 billion being invested into fracked natural gas production in West Virginia (Polson, 2017).

West Virginia: Energy hub for the world?

In the run-up to and months following the 2016 U.S. presidential election, Appalachia enjoyed a rare moment in the national political spotlight. Best-selling novels and countless new stories attempted to give voice to the allegedly voiceless, to better understand the “new minority” (Gest, 2016), and to explain what was increasingly known as “Trump Country.” A run of media outlets portrayed McDowell County, West Virginia, one of the state's poorest counties located in the historic Southern coalfields, as the heart of Trump Country. Though McDowell County is much more diverse than media outlets often portray it to be (Catte, 2018), the representations provide an excellent example through which to understand how much of the poverty in the region came into being via historical processes of power and powerlessness. In the 2017 article *When Walmart Left*, Pilkington describes the

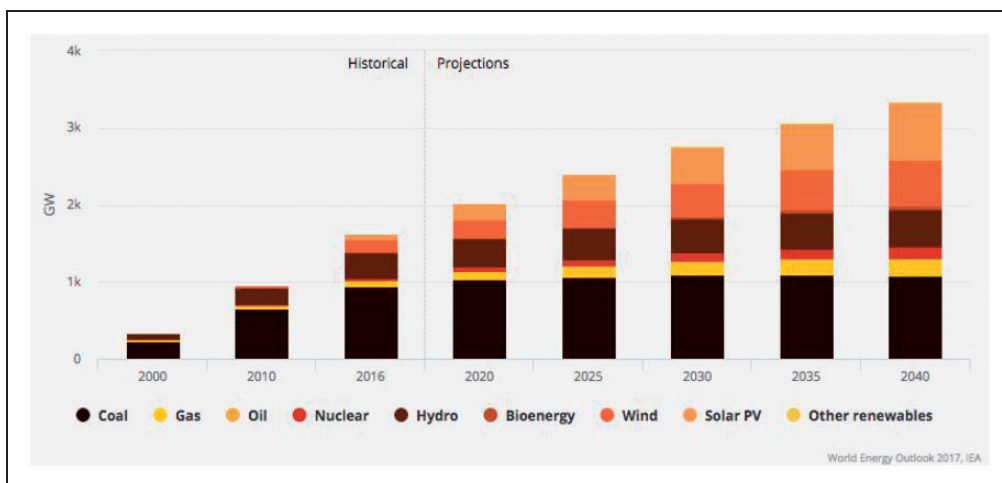


Figure 4. Energy capacity by technology in China in the New Policies Scenario.
Source: Reprinted with permission from IEA (2017a).

inequalities of the county via losses experienced by the closing of the county's only Walmart. This narrative, though more nuanced than previous efforts to address poverty in the state, continues the logic that the state's economic downturn can be solved by simply adding more jobs or building new roads, without any real discussion of necessary structural change in the region (Eller, 1982; 2013). Further, these narratives, which focus on the localized level of poverty, fail to connect loss of jobs and access to resources (e.g. losing a Walmart in an impoverished county) to larger national and global processes.

Yet these recent events must be viewed in the context of a much longer political history. Appalachia has long been portrayed as lagging behind the rest of the United States, whether despite or because of its resource wealth. In times of crisis, the United States looks toward Appalachia to be reminded of how far the rest of the country has progressed (Eller, 2013; West, 1973). Appalachia's seemingly enigmatic status, as a rich land of poor people, is often explained via reference to the region's culture or its environment—an argument applied to many places suffering from the alleged “resource curse” (see Le Billon, 2005). However, such arguments overlook the region's diversity (Stoll, 2017; Catte, 2018), and obscure the “complexity of political and economic struggles within the region and diminish[] . . . national dialogue on the meaning of progress and most appropriate path to development” (Eller, 2013: 7). With this complexity in mind, and building upon Gaventa's theorization of power and powerlessness mentioned above, this section aims to highlight the ways in which patterns of power that have persisted over time provided the cultural and political context in which the Chinese MOU in West Virginia was sought and secured. While the first author engaged in fieldwork in the state, conducting 30 semi-structured interviews with community storytellers, environmental activists, and industry experts, the majority research for this article is based on extensive archival research in the West Virginia and Regional Historical Center archives and West Virginia state archives. Further, because this deal is still speculative, we also analyzed several media and news reports regarding the proposed MOU. This primary and mostly secondary data are used alongside a deep reading of the state's political economy to establish and interpret the history and context of this deal.

Energy, and specifically coal, has been central to West Virginia's political-economic history and its associated cultural politics. The linking of energy production, pride, and progress in a formation similar to what Koch and Perrault (2019) term "resource nationalism," albeit at the scale of a sub-national territory, began to form as early as the late 19th century, around time of the state's formation. Absentee land ownership, a prominent feature of the state's land tenure throughout its existence, has been central and functional to that formation (as Gaventa noted in his original 1982 study). The first author's fieldwork in the state reveals that this sentiment—the acknowledgement that the dispossession of the state's resources (land and labor, broadly understood) dovetails with pride in those resources being central to U.S. development—is typical and works in tandem to structure and cohere historical patterns of quiescence and rebellion that define the state's complex relationship with energy, extraction, and poverty.

Toward the end of the 19th century, West Virginia shifted dramatically from an economy centered on small-scale farming and subsistence practices, toward one built around resource extraction. Letters found in the *Waitman T. Willey Papers*, comprised documents written by one of the state's founders, reveal that industrial-scale logging contracts with companies based in New England were already being planned during the state's secession from Virginia (McEnally to Willey, Letter, [ca. 1864]). While logging and chemical processing were also key industries at the time, coal rapidly outpaced the rest. By 1900, Appalachia was responsible for nearly 80% of national coal production (Callahan, 1913; Eller, 1982: 128), and West Virginia was the leading state contributing to that total. A newspaper clipping from a ~1888 issue of the *Pittsburgh Dispatch* illustrates how this explosion in coal mining began to lay the foundation for the region being seen as a "sacrifice zone" for national progress:

The announcement that a great syndicate of capitalists has bought up more than 100,000 acres of coal land in the West Virginia mountains along the valleys of the New and Gauley rivers and Loup creek is of wide importance to the industrial world. Few recent enterprises are on a larger scale than the great coking works which are soon to light these charming river valleys with fitful glare at night and warp them in clouds of sulphurous smudge most of the day. (*William G. Worley Collection*, clipping, [ca. 1888])

Later in the same article, the author, noting the environmental impacts, writes, "But why protest? The dissolution will go on. Coal and coke are necessities, and other valleys remain for pleasure and delight after the picturesque and beautiful New [River] is given over to the pitiless smudge of the workaday world." Energy production became a key part of the newly formed state's identity, especially in relation to the growth of the nation at large (at all costs—see also Scott, 2010, on identity, coal production, and progress). A poem penned by D.B. Purinton, found in a folder of anonymous newspaper clippings in the *William G. Worley's Collection*, also discloses the ties between the state's formation and an early awareness of resource extraction costs:

West Virginia! land of treasure
Buried in the silent earth –
Nature's gift in boundless measure,
Waiting him who calls it forth.
Be that wealth no longer lost,
Let thy sons with regal spirit,
Claim the kingdom they inherit,

Whatsoe'er that climate may cost.
Fairer than the fairest sky. ([ca. ~1888])

The eerily still-relevant phrase “Whatsoe'er that climate my cost” is not only telling of the state's early commitment to resource extraction but also to its early self-awareness of being a sacrifice zone for progress and growth elsewhere. More recent discussions about the prospects of energy transitions within the state also reference this history of resource extraction, citing prior sacrifices as reasons for a more just transition (Hansen, 2019).

Correspondences from coal manufacturers to unionized miners found in the *Dawson Coal Company Records* dated to 1917—at the peak of World War I and three years before the infamous “Mine War”—directly link nationalism to energy production: “The Government and all the people of the country expect the miners to honor their contract and to mine the coal which the nation needs” (Notice to UMWA members, [ca. 1917]). As coal mining operations spread across the state, coal became a central export of West Virginia's economy, despite ebbs and flows in the market. Increasing investment from New England and England and shifting legal frameworks enabled further land enclosures for coal production, resulting in coal mining operations owned mostly by absentee landowners.

The increasing economic inequality associated with coal production gave rise to strong labor unions and some of the largest labor uprisings in American history (Corbin, 1990; Harris, 2017). The “Mine War” (ca. 1921) was the largest armed insurrection in U.S. history since the Civil War, one led by coal miners marching against their companies. It ended only after an altercation between miners and the U.S. National Guard, in which miners laid their arms down so as to not go to war with the United States (Savage, 1990). That decision highlights a critical aspect of the cultural politics of coal production in West Virginia: the fact that miners identified with, and took pride in producing energy for, the nation. Likewise, comments from industry leaders at the 1959 National Fuels Policy Dinner—at which West Virginia House of Delegates member, Archie A. Moore, Jr., was a speaker—emphasized both coal's role in fighting communism abroad and also its role in domestic national security: “The role of coal in our economy. . . I strongly feel is of vital importance not only to the coal industry and to the railroad utility industries, but also to the very well-being, strength, and survival of the United States” (Comments from Philip Sporn, *Archie A. Moore, Jr. Papers*, [ca. 1959]).

West Virginia remained an important energy hub for the United States for decades. Still, often-violent responses to organized labor, advances in mining technology toward automation, and national market shifts to other kinds of energy all led to coal operations being moved from largely underground, labor intensive forms, to far more capital-intensive and heavily automated strip mining (cf. Mitchell's *Carbon Democracy* (2013): strip mining could be construed as another response to the strategic advantages subsurface coal mining afforded labor). Underground coal production, though difficult and dangerous, could provide a relatively high number of well-paying jobs. Strip mining requires fewer people. More significantly, strip mining—often characterized as mountain top removal—scars the landscape, making it entirely unusable in many cases. This mining practice, which has been met with considerable political resistance, has also slowed in recent years due to national and global shifts toward cheaper energy sources such as natural gas. As a result, the state's coal mining industry has declined substantially in the past several decades, and the state's economy along with it. This history of extraction and exploitation has left the state heavily polluted, persistently poor, and with politics widely recognized as being dominated by both external and internal owners and exploiters of the land and its resources (Fisher and Smith, 2016; Scott, 2010). Such, at least, is the narrative often recycled in public discourse.

While any number of structural failures, such as the failed War on Poverty or the failures of Appalachian Regional Commission, could be cited, coal remains a source of pain and pride in West Virginia's politics. Trump's promise to "bring back coal" resonates so loudly in the state because of this tension. It responds to and inflames localized antinomies about job loss and re-centers coal as both the cause of and the solution to a struggling economy.

Yet while coal is still deeply imbricated in West Virginia's cultural and political identity, it has not been "king" for several decades. If someone familiar with only popularized images of West Virginia were to drive across the state, they might be surprised to see dozens of wind farms perched on the state's mountain ridges, many overlooking abandoned or reclaimed coal mines. The growth in renewables across the state can be attributed to a bill passed in 2009, *HB 103– Alternative and Renewable Energy*. Although the bill includes "advanced coal technology," "coal bed methane," and "natural gas" as forms of alternative energy, it also makes specific stipulations for solar, wind, hydropower, and geothermal energies. More importantly, the bill clearly re-inscribes the state's dominant cultural-political associations between energy production, pride, and progress: "West Virginia has served the nation for many years as a reliable source of electrical power" (HB 103, 2009).

Discussion

We are now in a position to bring the multiple threads of this argument together. It is clear that China faces urgent demands for both more energy on the one hand, and cleaner energy and the at least partial mitigation of growing air and water pollution within its borders on the other. We suggest that these demands represent classic environmental crisis tendencies of capitalism—resource scarcity on the one hand, mounting externalities on the other—and so the continued reproduction of the Chinese state and economy depend on finding "fixes" for them. Large-scale development of renewable energy in China is one component of such a "fix," one that remains within the territory of the crisis. A global search for new sources of fossil fuels, however—ideally ones that will be less polluting than coal, and/or that can be extracted and at least partially processed elsewhere—is another. As China continues to grow its economy in the face of environmental degradation, its costs are externalized into historic sacrifice zones for capitalist development, such as West Virginia.

The promised investment of \$87.3 billion of Chinese capital in West Virginia, largely for the extraction and processing of natural gas for export to China, is a component of the latter strategy. This MOU builds upon historic precedent and ongoing economic anxieties stoked by populist politics to position West Virginia, once again, as an energy hub for the world, and for China specifically. As we have seen, this is on the one hand a pattern completely familiar to the people of West Virginia: extra-local capital coming into the state to extract a valuable natural resource for use elsewhere, with little of the profit but the bulk of the social and environmental costs staying in West Virginia. And in fact, the details of proposed MOU, which are scant at best (Mitsch, 2017), are raising key questions about West Virginia's and Appalachia's energy futures (Ward, 2017). Moreover, fracking and natural gas production in West Virginia are already contested (Meehan, 2018; Mishkin, 2018). This is, then, a socioecological "fix" for crisis tendencies in China's economy that has crucial geographical dimensions—of scale, of national territories, and of the reliance upon deeply embedded and accepted perceptions of an area, including often by its own residents, as a sort of "sacrifice zone."

Yet the use of West Virginia's land, resources, and people as the site of a "fix" for problems in China is jarringly unfamiliar in other ways. It would seem to fly in the face of most popularized perceptions of the region's cultural politics, which have been widely

touted as emblematic of the nationalism, protectionism, and xenophobia of the Trump era in U.S. politics. It would also seem to sit uneasily with the cultural politics we have sketched above, building on Gaventa's work, in which many residents of West Virginia seem willing to accept the social and environmental costs of resource extraction in general, and of coal mining in particular, in large part because of the pride they take in providing those resources to the nation, thereby contributing to its economic and geopolitical strength. That is not a narrative that easily valorizes selling natural gas to China—one of Trump's preferred scapegoats for the economic precarity deeply felt in places like West Virginia.

In fact, Trump's appeals to West Virginians centered heavily on promises to bring back coal for domestic consumption. Given coal's centrality to West Virginia's politics, we suggest that it is no coincidence that it was precisely on the topic of energy, and specifically coal production in a national interest framed in strongly reactionary, racialized, and protectionist terms, that Trump drummed up populist support in a historically blue region. Specifically, he made repeated promises at campaign stops in West Virginia and elsewhere in the region to "bring back coal" and revitalize struggling regional economies. The first author attended a 2018 political rally in Charleston, WV, at which President Trump was garnering support for Republican nominee for office of the state's senator, Patrick Morrisey. Coal miners lined the stage as Trump made promises to "bring back coal" despite mounting evidence to suggest that the reality would be otherwise. Of course, Trump's promises to "bring back coal" did not address the structural reasons that West Virginia has been, and continues to be, a sacrifice zone for national—and now global—progress. Many West Virginians are aware of this legacy, and yet, many still voted for Trump, highlighting how energy production can be understood in West Virginia through the lens of what Koch and Perreault (2019) term "resource nationalism."

The question then becomes how the deep cultural politics explored by Gaventa and revisited above were mobilized and reworked to justify, legitimate, and even celebrate the MOU with China. Here, we find it critical to begin by looking at how local elites, critical in any understanding of hegemony, have made that move. In direct connection with the MOU with China, political leaders in West Virginia have argued that energy exports abroad, including to China, are good for both the local and national economy. For example, according to U.S. Senator Shelly Moore Capito, a WV Republican, the \$87.3 billion of Chinese investment in West Virginia's energy economy would expand "Appalachia's energy infrastructure, including developing a regional hub and market for natural gas liquids" (Polson, 2017). Woody Thrasher, a 2020 West Virginia gubernatorial candidate who was a key negotiator for the Chinese MOU, has made similar claim, and, in fact, has made completion of the energy deal with China central to his campaign (Tausche, 2019). Justifications for and attempts to secure China's investments by these elites cohere with the deeply entrenched narrative that West Virginians, who have experienced profound economic depression since the 1980s, need jobs, glossing over histories of dispossession that have come along with similar promises in the past. These histories are blurred by elites like Thrasher, who aligns himself with wider populist rhetoric, as evidenced by his campaign information. On his campaign website, Thrasher (2019) mentions that he has "learned a lot from President Trump," and notes that "more jobs, higher wages, and better roads equal making America great again. It can really be that simple." He goes to explain that, by following the same simple plan, "West Virginians can have the American dream." The promise of jobs—of achieving the American dream, tying tightly together intersections of energy and national progress—takes precedence over historical injustice, sublimating the desires of the powerless within the political messaging of the powerful, potentially leading to further quiescence among the powerless.

Notably, many non-elite actors in the region, with decidedly different perspectives, agree that the energy deal with China reprises central elements of the state's history and politics. A community storyteller and environmental activist, asked about the state's energy history and its relationship to the deal with China, responded:

It's not that there is no more coal, but coal isn't king anymore. And that's a big difference because they came in [as] the coal barons, [but] the timber barons became the coal barons ... Now they switched... it's been changing my whole lifetime. (WV1, 2018)

Here, she is discussing how different forms of capital investment come and go, noting that coal was hardly ever "king" so much as it was just another historic example of exploitation. She went on to discuss how the deal with China is just another example of outside capital investing in the further dispossession of the state's land and resources. While people may be opposed to the deal, the short-term desire for a functional economy and to contribute to "progress"—bolstering the U.S. economy's role in energy production abroad, in this case—typically override any long-term consideration of consequences. Another interviewee who has been involved with environmental justice work in West Virginia for decades, when asked why some people who are able to acknowledge the negative consequences of the China deal are supportive nonetheless, responded: "Jobs, jobs overall. Bring jobs whatever it takes" (WV2, 2019). This line of reasoning aligns directly with the elites' messaging. He also noted how the details of the deal have stayed largely out of the public, adding to the confusion and mapping onto Gaventa's (2018) conceptualization of the spaces of power mentioned above. Further, the interviewee noted that among the many hazy details of the deal are suggestions that the Chinese deal will help build more petrochemical processing infrastructure—ethane cracking facilities, specifically—along the northern West Virginian side of the Ohio River (see also Silverstein, 2019). Though the exact geographies of the MOU have not been determined, part of the draw to West Virginia, the interviewee speculated, has to do with much of the pipeline infrastructure that is already in place, cross cutting much of the entire state. Further, there are currently eight major pipelines being constructed in West Virginia (WVDEP, 2020). Whereas many of the resources extracted through the promised deal with China would be taken overseas, the suggestion that this infrastructure would be built as part of that deal holds out the hope of some material contribution to state-wide and national progress. This sort of convergence between elite and non-elite objectives, even among those with critical perspectives, is, we suggest, clear evidence (especially when read alongside historical documents) of persistence of the sort of hegemonic political structures and interpretive frames that Gaventa detailed in 1982.

As evidenced by Gaventa's work, these sorts of promises made by the powerful—that resource extraction will bolster local economies, for example—are not new and are indicative of enduring patterns of power that privilege certain narratives of progress over others. Though many West Virginians are aware and critical of the costs of resource extraction, the promise of job creation and stimulating a struggling economy makes the deal not only acceptable but desirable within the state, highlighting the ways in which historic patterns of power and powerlessness work alongside contemporary authoritarian and populist politics to cohere a hegemonic rendering of West Virginia as a resource hub for global progress. It is important to note that quiescence among non-elites about the Chinese MOU is not just about having jobs, but that the promise of jobs is intricately tied to the ability to contribute to American growth and progress. Those who may disagree, while still having grievances, are also often complicit in accepting the basic framework above, in which attracting external

capital is seen as crucial to, and indeed effectively synonymous with, local economic development, identity, and social purpose and well-being.

In light of rising rates of unemployment despite energy production and increasing inequality across the state as a result, the portion of the MOU between the United States and China dealing specifically with investment in West Virginia is articulated with and depends upon structures of quiescence and rebellion that have persisted over time. In fact, these patterns of power and powerlessness provide the conditions through which the negative externalities of a socioecological fix in China can be sunk into a place like West Virginia. Though the energy landscape of West Virginia may look different than outsiders may expect when considering the relative growth of renewables, and though the energy landscape represents some of the political change mentioned in Gaventa's (2019) article, his conceptualization of the way hegemonic power relations coalesce and persist remains useful for understanding how, why, and in what ways West Virginia has become a site for unprecedented energy extraction by yet another external entity. What is significant to note about this particular conjuncture, however, is how the promise of investment in West Virginia coalesces with the drive for a socioecological fix for Chinese growth, externalizing the costs of Chinese growth as positives for the further dispossession (disguised as growth) of West Virginia.

Conclusion

In this paper, we have examined the historical, political, social, ecological, and spatial contours of the seemingly paradoxical MOU from China to invest an unprecedented \$250 billion in energy exploration and production across the United States. Given that \$87.3 billion of this deal is destined for West Virginia, we have looked closely at the ways in which contemporary populist politics in the United States grafts onto historical patterns of dispossession in a state that has long served as a resource colony for capitalist development at home and abroad. While this paper is largely focused on trends in energy and resource geographies in West Virginia, it is impossible to understand the shifting terrain of these politics without positioning them within the context of global-political trends. As China's ruling party struggles to maintain legitimacy and ensure economic growth in the face of looming environmental crises, it is making strides toward building the world's largest renewable energy infrastructure. At the same time, China is investing in fossil fuels extraction elsewhere, and in West Virginia in particular. West Virginia, which has historically leaned upon coal production to bolster its economy, is being tapped once more for its fossil fuel resources, now in the form of fracked natural gas. We have argued that Gaventa's writing on power and powerlessness helps to highlight how these proposed investments in West Virginia build upon historical patterns of dispossession that consistently position the state, rich in natural resources, as one of the poorest in the United States. Further, we argue that these investments can be understood as externalities to a socioecological fix for China's growing economy. As China's economy grows at all costs, we speculate that it is externalizing much of the costs of its development onto West Virginia, adding a new layer to the way patterns of quiescence and rebellion have shaped the state over the past several decades. While many West Virginians recognize that this deal, if passed, is yet another raw deal (Ward, 2017)—one in which the state serves as an extraction colony for absentee landowners (Lucas, 2017)—West Virginia is hamstrung by populist politics, historical power imbalances, and false promises to bring jobs back to a downtrodden economy. These are the promises made by local elites that build upon histories of dispossession, creating the conditions for this MOU—which still signifies a speculative deal—to exist at all. Despite the

acknowledgement that the deal builds upon histories of dispossession, there is a sense that West Virginians are “still waiting” for the deal to materialize (Tausche, 2019). Again, this “waiting,” we argue, highlights some form of acceptance by way of a lack of opposition. Even now, the promised Chinese investments are threatened due to the potential risks of U.S.-sanctioned global trade wars while West Virginia struggles to maintain a working relationship with the Chinese government (McElhinny, 2018). Returning to Gaventa’s (1982) findings in the Clear Fork Valley over 30 years ago, this energy deal highlights the ways in which power and powerlessness coalesces to ensure quiescence among the angry and dispossessed. However, as Gaventa’s (1982, 2018, 2019) works also point, there may yet be points of rupture that tip the balances of power and powerlessness in favor of genuine structural change.

Highlights

- This article adds to literature on the “socioecological fix” by examining the externalities of these proposed fixes.
- China is a leader in “green” energy domestically, while externalizing much of its energetic needs to places like West Virginia.
- Gaventa’s work is important to revisit in light of the WV–China energy deals, especially when historicizing power structures in Appalachia.
- This article highlights how authoritarian and populist politics articulate around energy within and across West Virginia and China.
- These authoritarian–populist configurations link energy use and economic growth to climate change and other forms of environmental degradation.

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Note

1. New Policies Scenario of the *World Energy Outlook* broadly serves as the IEA baseline scenario. It takes account of broad policy commitments and plans that have been announced by countries, including national pledges to reduce greenhouse-gas emissions and plans to phase out fossil-energy subsidies, even if the measures to implement these commitments have yet to be identified or announced (<https://www.iea.org/publications/scenariosandprojections/>).

References

- Agamben G (1995) *Homo Sacer: Sovereign Power and Bare Life*. Palo Alto: Stanford University Press.
- Ahlborg H and Nightingale AJ (2018) Theorizing power in political ecology: The *where* of power in resource governance projects. *Journal of Political Ecology* 25: 381–401.
- Albert E and Xu B (2016) China's environmental crisis. *Council on Foreign Relations*. Available at: <https://www.cfr.org/backgrounder/chinas-environmental-crisis> (accessed 5 March 2018).
- Albright M (2018) *Fascism: A Warning*. New York: HarperCollins Publishers.
- Arendt H (1968) *The Origins of Totalitarianism*. New York: Harvest.
- Bachrach P and Baratz MS (1970) *Power and Poverty: Theory and Practice*. Oxford, UK: Oxford University Press.
- Bai X, Ding H, Lian J, et al. (2018) Coal production in China: Past, present, and future projections. *International Geology Review* 60: 535–547. <https://doi.org/10.1080/00206814.2017.1301226>.
- Bakker K (2009) Neoliberal nature, ecological fixes, and the pitfalls of comparative research. *Environment and Planning A* 41(8): 1781–1787.
- Bebbington A and Bury J (eds) (2013) *Subterranean Struggles: New Dynamics of Mining, Oil and Gas in Latin America*. Austin: University of Texas Press.
- Bello W (2018) Counterrevolution, the countryside and the middle classes: Lessons from five countries. *The Journal of Peasant Studies* 45(1): 21–58.
- Berman R (2018) Republicans can't stop Trump's trade war. *The Atlantic*. Available at: <https://www.theatlantic.com/politics/archive/2018/03/republicans-cant-stop-trumps-trade-war-tariffs/554903/> (accessed 6 March 2018).
- Bessner D and Sparke M (2017) Nazism, neoliberalism, and the Trumpist challenge to democracy. *Environment and Planning A* 49(6): 1214–1223.
- Birdgood J (2018) West Virginia raises teachers' pay to end statewide strike. *The New York Times*. Available at: <https://www.nytimes.com/2018/03/06/us/west-virginia-teachers-strike-deal.html> (accessed 7 March 2018).
- Bradsher K and Friedman L (2017) China unveils an ambitious plan to curb climate change emissions. *The New York Times*. Available at: <https://www.nytimes.com/2017/12/19/climate/china-carbon-market-climate-change-emissions.html> (accessed 5 March 2018).
- Brown W (2019) *In the Ruins of Neoliberalism: The Rise of Antidemocratic Politics in the West*. New York: Columbia University Press.
- Callahan JM (1913) *Semi-Centennial History of West Virginia with Special Articles on Development and Resources*. Charleston: Semi-Centennial Commission of West Virginia.
- Catte E (2018) *What You Are Getting Wrong About Appalachia*. Cleveland: Belt Publishing.
- Catte E and Salfia J (2018) *55 Strong: Inside the West Virginia Teachers' Strike*. Cleveland, OH: Belt Publishing.
- China.org (2017) Full Text: Xi Jinping's keynote speech at the World Economic Forum. *The State Council Information Office of the People's Republic of China*. Available at: http://www.china.org.cn/node_7247529/content_40569136.htm (accessed 5 March 2018).
- China Renewable Energy Outlook (CREO) (2017) *China Renewable Energy Outlook 2017: Executive Summary*. Available at: <http://boostre.cnrec.org.cn/wp-content/uploads/2017/10/CREO-2017-booklet-EN-20171222.pdf> (accessed 5 March 2018).
- Corbin DA (1990) *The West Virginia Mine Wars: An Anthology*. Charleston: Appalachian Editions.
- Dawson Coal Company Records (Unknown Author) (1917) [Notice to All Members of the United Mine Workers of America] Dawson Coal Company Records, 1917-1948, West Virginia

- University's West Virginia and Regional History Center (Folder 1), West Virginia University Libraries, Morgantown, WV.
- Dickerson C (2019) Manchin, state GOP leaders heap praise on Trump's Affordable Clean Energy Proposal. *West Virginia Record*. Available at: <https://wvrecord.com/stories/512653807-manchin-in-state-gop-leaders-heap-praise-on-trump-s-affordable-clean-energy-proposal> (accessed 1 July 2019).
- Ekers M and Prudham S (2015) Towards the socio-ecological fix. *Environment and Planning A* 47(12): 2438–2445.
- Ekers M and Prudham S (2017a) The metabolism of socioecological fixes: Capital switching, spatial fixes, and the production of nature. *Annals of the American Association of Geographers* 107(6): 1370–1388.
- Ekers M and Prudham S (2017b) The socioecological fix: Fixed capital, metabolism, and hegemony. *Annals of the American Association of Geographers* 108(1): 17–34.
- Eller RD (1982) *Miners, Millhands, and Mountaineers: Industrialization of the Appalachian South, 1880-1930*. Knoxville: The University of Tennessee Press.
- Eller RD (2013) *Uneven Ground: Appalachia Since 1945*. Lexington: University of Kentucky Press.
- Fisher S and Smith BE (2016) Internal colony – Are you sure? Defining, theorizing, organizing Appalachia. *Journal of Appalachian Studies* 22(1): 45–50.
- Fraser N (2017) The end of progressive neoliberalism. *Dissent* 64(2): 130–134.
- Fridley D, Lu H and Liu X (2017) *Key China Energy Statistics 2016*. Berkeley: Lawrence Berkeley National Laboratory.
- Garfield L (2017) China built a 250-acre solar farm shaped like a giant panda. *Futurism*. Available at: <https://futurism.com/china-built-250-acre-solar-farm-shaped-giant-panda/> (accessed 5 March 2018).
- Gaventa J (1982) *Power and Powerlessness: Quiescence and Rebellion in an Appalachian Valley*. Chicago: University of Illinois Press.
- Gaventa J (2018) The power of place and the place of power. In: Billings DB and Kingsolver AE (eds) *Appalachia in a Regional Context: Place Matters*. Lexington: University of Kentucky Press.
- Gaventa J (2019) Power and powerlessness in an Appalachian Valley – Revisited. *The Journal of Peasant Studies* 46(3): 440–456.
- Gest J (2016) *The New Minority: White Working Class Politics in an Age of Immigration and Inequality*. Oxford: Oxford University Press.
- Griggs MB (2017) Why is the smog in China so bad? *Popular Science*. Available at: <https://www.popsci.com/why-is-smog-in-china-so-bad> (accessed 5 March 2018).
- Hansen E (2019) Time to talk about a fair energy transition. *Charleston Gazette-Mail*. Available at: https://www.wvgazettemail.com/opinion/op_ed_commentaries/evan-hansen-time-to-talk-about-a-fair-energy-transition/article_092cfbf6-5a86-5dc5-9418-f47997238184.html?utm_medium=social&utm_source=facebook&utm_campaign=user-share&fbclid=IwAR0ONdhiKJw96A4yzRJCqXgym6w_NtzwZI6PQwGU87KhD5K16bP1D35vUIQ (accessed 4 February 2020).
- Harris W (2017) *Written in Blood: Courage and Corruption in the Appalachian War of Extraction*. Oakland: PM Press.
- Harris W (2017) *Written in Blood: Courage and Corruption in the Appalachian War of Extraction*. Oakland, CA: PM Press.
- Harvey D (1982) *The Limits to Capital*. Oxford: Blackwell.
- Harvey D (2005) *A Brief History of Neoliberalism*. Oxford: Oxford University Press.
- HB 103–Alternative and Renewable Energy (2009) Reg. Session, West Virginia, 2009.
- Huber M (2013) *Lifeflood: Oil, Freedom, and the Forces of Capital*. Minneapolis: University of Minnesota Press.
- International Energy Agency (IEA) (2017a) *World Energy Outlook 2017*. Available at: <http://www.iea.org/weo2017/#section-2> (accessed 3 April 2020).
- International Energy Agency (IEA) (2017b) *World Energy Outlook 2017: China*. Available at: <https://www.iea.org/weo/china/> (accessed 3 April 2020).
- Isoaho K, Goritz A and Schulz N (2017) Governing clean energy transitions in China and India. In: Arent D, Arndt C, Miller M, et al. (eds) *The Political Economy of Clean Energy Transitions*. Oxford: Oxford University Press. DOI: 10.1093/oso/9780198802242.001.0001.

- Kingsolver AE (2018) "Placing" futures and making sense of globalization on the edge of Appalachia. In: Billings DB and Kingsolver AE (eds) *Appalachia in a Regional Context: Place Matters*. Lexington: University of Kentucky Press, pp.17–48.
- Koch N and Perreault T (2019) Resource nationalism. *Progress in Human Geography* 43(4): 611–631.
- Kuletz V (1998) *The Tainted Desert: Environmental and Social Ruin in the American West*. New York: Routledge.
- Le Billon P (ed.) (2005) *Geopolitics of Resource Wars: Resource Dependence, Governance and Violence*. London: Frank Cass.
- Lucas L (2017) Chinese promise billions to maintain WV as an extraction colony. *Charleston Gazette-Mail*. Available at: https://www.wvgazettemail.com/opinion/gazette_opinion/op_ed_commentaries/lissa-lucas-chinese-promise-billions-to-maintain-wv-as-an/article_da7e1b79-fe39-5995-8888-c8554e1fc4fd.htm (accessed 6 March 2018).
- Lukes S (1974) *Power: A Radical View*. New York: Palgrave MacMillan.
- Mann G and Wainwright J (2018) *Climate Leviathan: A Political Theory of Our Planetary Future*. New York: Verso.
- McBride R (2018) China builds largest floating solar farm in the world. *Al Jazeera*. Available at: <https://www.aljazeera.com/news/2018/01/china-builds-largest-floating-solar-farm-world-180122080756685.html/> (accessed 5 March 2018).
- McCarthy J (2015) A socioecological fix to capitalist crisis and climate change? The possibilities and limits of renewable energy. *Environment and Planning A* 47(12): 2485–2502.
- McCarthy J (2019) Authoritarianism, populism, and the environment: Comparative experiences, insights, and perspectives. *Annals of the American Association of Geographers* 109(2): 301–313.
- McCurry J and Kollewe J (2011) China overtakes Japan as world's second-largest economy. *The Guardian*. Available at: <https://www.theguardian.com/business/2011/feb/14/china-second-largest-economy> (accessed 5 March 2018).
- McElhinny B (2018) Smiles and greetings at events for China developers give way to conflicts among key players. *WV MetroNews*. Available at: <http://wvmetronews.com/2018/07/18/smiles-and-greetings-at-events-for-china-developers-give-way-to-conflicts-among-key-players/> (accessed 4 August 2018).
- McEnally JB (1864) [Letter to Waitman T. Willey], *Waitman T. Willey Papers*, 1820-1917, West Virginia University West Virginia and Regional History Center (Box 2, Folder 11), West Virginia University Libraries, Morgantown, WV.
- Meehan M (2018) Fracking waste disposal: Still a hot mess. *West Virginia public broadcasting*. Available at: <http://wvpublic.org/post/fracking-waste-disposal-still-hot-mess#stream/0> (accessed 5 March 2018).
- Mishkin K (2018) Pipeline shouldn't have access to streamlined permit, environmental lawyers say. *Charleston Gazette-Mail*. Available at: https://www.wvgazettemail.com/news/pipeline-shouldn-t-have-access-to-streamlined-permit-environmental-lawyers/article_b2451c5d-5224-5f16-a28c-518d7bb8fe10.html (accessed 5 March 2018).
- Mitchell T (2013) *Carbon Democracy: Political Power in the Age of Oil*. London: Verso.
- Mitsch D (2017) Details scant about \$84 billion china energy investment deal in West Virginia. *West Virginia Public Broadcasting*. Available at: <http://wvpublic.org/post/details-scant-about-84-billion-china-energy-investment-deal-west-virginia#stream/0> (accessed 5 March 2018).
- Nugent JP (2015) Ontario's infrastructure boom: a socioecological fix for air pollution, congestion, jobs, and profits. *Environment and Planning A: Economy and Space* 47; 12: 2465–2484.
- Peck J (2010) *Constructions of Neoliberal Reason*. Oxford: Oxford University Press.
- Phillips T (2017) China builds world's biggest solar farm in journey to become green superpower. *The Guardian*. Available at: <https://www.theguardian.com/environment/2017/jan/19/china-builds-worlds-biggest-solar-farm-in-journey-to-become-green-superpower> (accessed 5 March 2018).
- Pilkington E (2017) Inequality and opportunity in America, what happened when Walmart left. *The Guardian*. Available at: <https://www.theguardian.com/us-news/2017/jul/09/what-happened-when-walmart-left> (accessed 5 March 2018).

- Pittsburgh Dispatch (1888) [Newspaper Clipping, No Author] William G. Worley Collection, West Virginia University's West Virginia and Regional History Center, West Virginia University Libraries, Morgantown, WV.
- Polson J (2017) West Virginia gets China energy deal that dwarfs state's GDP. *Bloomberg*. Available at: <https://www.bloomberg.com/news/articles/2017-11-09/west-virginia-gets-china-energy-deal-that-dwarfs-state-s-gdp> (accessed 5 March 2018).
- Qi Y, Stern N, Wu T, et al. (2016) China's post-coal growth. *Nature Geoscience* 9: 564–566.
- Ranciere J (2010) *Dissensus: On Politics and Aesthetics*. New York: Bloomsbury Publishing.
- Savage L (1990) *Thunder in the Mountains: The West Virginia Mine War, 1920-1921*. Pittsburgh: University of Pittsburgh Press.
- Scoones IM, Edelman SM, Borras Jr. R, et al. (2018) Emancipatory rural politics: Confronting authoritarian populism. *The Journal of Peasant Studies* 45(1): 1–20.
- Scott JC (1990) *Domination and the Arts of Resistance: Hidden Transcripts*. New Haven, CT: Yale University Press.
- Scott R (2010) *Removing Mountains: Extracting Nature and Identity in the Appalachian Coalfields*. Minneapolis: University of Minnesota Press.
- Silverstein K (2019) How Trump could burn West Virginia, causing it to lose an \$84 billion gas deal with China. *Forbes*. Available at: <https://www.forbes.com/sites/kensilverstein/2019/01/22/how-trump-could-burn-west-virginia-causing-it-to-lose-an-84-billion-gas-deal-with-china/#1f46470f5590> (accessed 26 July 2019).
- Snyder T (2017) *On Tyranny: Twenty Lessons from the Twentieth Century*. New York: Tim Duggan Books.
- Sporn P (1959) [Comments at the National Fuels Policy Dinner] Governor Archie A. Moore, Jr. Papers, 1950-1989, West Virginia University's West Virginia and Regional History Center, West Virginia University Libraries, Morgantown, WV.
- Stoll S (2017) *Ramp Hollow: The Ordeal of Appalachia*. New York: Hill and Wang.
- Surprise K (2018) Preempting the second contradiction: Solar geoengineering as spatiotemporal fix. *Annals of the American Association of Geographers* 108(5): 1228–1244.
- Surprise K (2019) Stratospheric imperialism: Liberalism, (eco) modernization, and ideologies of solar geoengineering research. *Environment and Planning E: Nature and Space*. DOI: 10.1177/2514848619844771.
- Svarstad H, Benjaminsen TA and Overå R (2018) Power theories in political ecology. *Journal of Political Ecology* 25: 350–363.
- Tausche K (2019) West Virginia is still waiting on a game-changing \$84 billion investment from China that was promised in 2017. *CNBC*. Available at: <https://www.cnbc.com/2019/06/20/west-virginia-still-waiting-on-84-billion-investment-from-china.html> (accessed 2 July 2019).
- Thrasher W (2019) “Why I’m running.” Available at: <https://woodythrasher2020.com/why-im-running/> (accessed 26 July 2019).
- Union of Concerned Scientists (UOCS) (2017) Each country's share of CO2 emissions. *Union of Concerned Scientists*. Available at: <https://www.ucsusa.org/global-warming/science-and-impacts/science/each-countrys-share-of-co2.html#.Wp10phPwaV4> (accessed 5 March 2018).
- Ward K (2017) China gas deal with WV generates more questions than answers. *Charleston Gazette-Mail*. Available at: https://www.wvgazettemail.com/news/special_reports/marcellus/china-gas-deal-with-wv-generates-more-questions-than-answers/article_c3fd635d-6f50-5132-bd59-b6e00202f615.html (accessed 5 March 2018).
- Watts M and Kashi E (2008) *The Curse of the Black Gold*. New York: Powerhouse Press.
- West D (1973) The people's Appalachia. *Antipode* 5(1): 6–11.
- West Virginia Department of Environmental Protection (2020) Major pipelines under construction in West Virginia. Available at: <https://dep.wv.gov/pio/Pages/Major-Pipelines-In-West-Virginia.aspx> (accessed 4 February 2020).
- WV1 (2018) Personal Interview with WV1.
- WV2 (2019) Personal Interview with WV2.

- Wynter S and McKittrick K (2015) Unparalleled catastrophe for our species? Or, to give humanness a different future: Conversations. In: McKittrick K (ed.) *Sylvia Wynter: On Being Human as Praxis*. Durham: Duke University Press.
- Xu M and Mason J (2017) China's energy demand to peak in 2040 as transportation demand grows: CNPC. *Reuters*. Available at: <https://www.reuters.com/article/us-china-cnpc-outlook/chinas-energy-demand-to-peak-in-2040-as-transportation-demand-grows-cnpc-idUSKCN1AW0DF> (accessed 5 March 2018).