2.

Energy and Autonomy
Worker Struggles and the Evolution of Energy Systems

Ashley Dawson

Introduction

When the Democratic National Committee (DNC) reversed its two-month-old ban on fossil fuel money in the scorching summer of 2018, it did so with a resolution proposed by Chairman Tom Perez that stated that the party “support[s] fossil fuel workers.”¹ The resolution, which reopened the floodgates to donations from “employers’ political action committees,” was a reaction to what the DNC described as “concerns from labor” that the original resolution “was an attack on workers” at a time when Republicans had been notching up a series of devastating victories meant to deal a final death blow to unions in the United States.² Powerful building trades unions such as the International Brotherhood of Electrical Workers, the United Brotherhood of Carpenters and Joiners of America, and the North America’s Building Trades Unions (NABTU) are strong supporters of fossil capitalism. For example, when pipeline company TransCanada filed for a permit after the 2016 election to build the Keystone XL pipeline, NABTU issued a press release stating that “on behalf of the tens of thousands of skilled craftworkers poised to earn billions of dollars constructing the Keystone XL pipeline, NABTU are thrilled to support TransCanada’s application.”³ But NABTU justified its support for Keystone, which had been the focus of an intense protest campaign by the environmental movement during the Obama administration, not simply by citing the enormous amount of money to be made by fossil fuel workers. The organization also stated that “[they were] delighted that the men and women who make their livelihoods in the construction industry will no longer suffer the indignity of having their chosen careers demeaned as nothing more
than ‘temporary jobs’ by out-of-touch politicians.” Th e press release crackles with class anger, directed in this case against environmentally minded politicians who pointed out that only thirty-five permanent jobs would be generated by the Keystone project, whereas the damage caused by the pipeline would be permanent—at least on any human time scale. Th e NABTU press release makes it clear that class warfare and climate change are inseparably linked. Given the erosion of wages during the bipartisan neoliberal consensus of the last four decades, it was all too easy for a populist demagogue such as Trump to enroll segments of labor in the cause of climate change denial.

Many sectors of the labor movement are at the leading edge of the fight for climate justice, having taken up positions that are diametrically opposed to those of the building trades. My own union, the Professional Staff Congress, which represents faculty and workers at the City Union of New York, passed resolutions supporting immediate divestment from fossil fuels at the city and state levels in 2012. But the building trades unions wield power disproportionate to their numbers, as their ability to sway the DNC suggests. Their position in support of Trump’s planet-destroying policies is grounded in pragmatic concerns: welders and other pipeline workers earn $22 per hour on average, while the median hourly wage for solar installers is just $16. Only 4.4 percent of workers in coal, oil, and gas extraction are union members, but the renewable energy sector is almost entirely nonunionized. Th is has led to deep skepticism among labor unions around the world about the notion of a just transition. Although the idea of just transition emerged within the labor movement—when the Oil, Chemical, and Atomic Workers International Union fought to establish a “Superfund for Workers” after a toxic chemical facility in New Jersey was shut down in the mid-1980s—the term has gained traction with the climate justice movement in recent years, where it is used to refer to the need for a broad economic and social transition to a sustainable, zero-carbon world in the next decade or two. Although the social revolution the planet needs should also be a boon for working people the world over, all too often the immediate concerns of workers have not been adequately considered by the environmental movement. And, conversely, segments of the union movement have been ensnared in dominant ideologies of “green growth” and, worse still, climate change denial. Despite the significant erosion of the power of worker organizations across North America and Europe over the last several decades, they remain a key site of counterpower to the capitalist class. It is therefore imperative that notions of green growth as a panacea for the

Energy and Autonomy
working class be roundly debunked and that calls for a worker-focused transition be built on radical programs that will bring the kind of sweeping socio-economic transformation that climate science has demonstrated we need in order to avert planetary ecocide.

As we develop this strategy and the policies through which it will be implemented, it is important to recall the pivotal role played by workers during past moments of transition from one energy regime to another. Literary works are particularly interesting documents of the concerns that arise at such historical inflection points. Although their depiction of energy workers is often indirect and heavily slanted, literary representations nonetheless offer an important index of the power held by workers and their organizations during these moments of transition. Novels in particular can be said to dramatize the political unconscious of fossil capitalism during times of crisis and transition. In what follows I will discuss three such pivotal moments of energy system shift, looking at a literary work that in each instance offers telling insights into the fears and desires of petrocultural worlds in transition. In the first of these moments, during the twilight years of coal’s dominance in Britain, H. G. Wells’s *The Time Machine* bodied forth uncanny images of a working class subjected to terrifying evolutionary pressures. In the second moment, when Saudi Arabia was being incorporated into petromodernity, Abdelrahman Munif’s *Cities of Salt* depicted the nomadic world of the Bedouin subordinated to wage slavery. And in the third moment, during the rise of the extreme extraction technology known as fracking in rural Pennsylvania in the 2000s, the itinerant workers who inhabit company-funded “man camps” are counterposed to the dejected locals who reside among the ruins of successive waves of petromodernity. When seen through one lens, these three historical snapshots may seem to tell a story of the smashing of worker power and the consequent exorcism of fears of revolutionary responses to petroculture, but they could also be seen as begging nagging questions about the need for the wholesale transformation of petrocultural worlds that amass mammoth, unsustain-able riches for a few while leaving very little for increasing numbers of people.

**Energy Transition and Worker Struggles**

Shifts from one energy system to another, energy historian Bruce Podobnik argues, are catalyzed by three key dynamics within capitalist cultures:
commercial competition, geopolitical rivalry, and social conflict. On the most fundamental level, capitalists and the corporations they form are locked in a remorseless struggle with one another. The cutthroat competitiveness of the individual capitalist is not simply a product of his individual psychological constitution—although capitalist culture does reward brashly competitive behavior to the detriment of other social values, such as cooperation—but rather a structural feature of the system as a whole. If the use of particular energy resources can give the capitalist a leg up on his competition, they will be adopted and employed to the hilt (as part of a broader repertoire of competitive tactics and dirty tricks). Adversaries who do not appropriate the new energies and technologies will be put out of business with no remorse but instead with much chest thumping and discussion of entrepreneurial zeal. So inasmuch as steam power permitted more intense exploitation of workers, it ultimately triumphed over water power. Similarly, as we shall see, when petroleum proved more useful than coal in the competitive world of capitalism, a shift in energy regimes took place with remarkable speed.

In addition, since capitalists also organize themselves into a national bourgeoisie, the same competitive dynamics we see between rivalrous firms play out between different nation-states. If a particular energy regime and its connected infrastructural assemblage give a country a competitive edge in either business or military affairs, that energy regime is likely to be quickly adopted and exploited. Nations that do not follow suit are dumped unceremoniously into the dustbin of history, turned into vassal powers, and denigrated ruthlessly as culturally benighted and even degenerate. In the nineteenth century, for example, Western European governments, recognizing the importance of steam power in increasingly industrialized forms of warfare following the Napoleonic Wars, strongly promoted the expansion of coal industries. As the century progressed, the world was knit together into a global energy system based on coal. Yet if coal-based steam power was instrumental in the creation of dense, industrialized, networked cities like London, Paris, and New York, it also facilitated the domination of far-flung colonies, as steamships and railroads, in conjunction with other technologies of the era such as the telegraph and the Gatling gun, led to the conquest of vast territories around the world. Coal power thus helped produce a “great divergence” within the world system. At one end of this system were liberal (but imperial) democracies like Britain; at the other end were colonial dominions such as India, China, and the ailing Ottoman Empire. With its technologically backward and cruelly
exploitative Southern plantation economy and its isolated reservations of brutally subjugated Indigenous peoples, the United States unified these opposing poles of the world system in one continent-spanning nation, with correspondingly incendiary political implications.

But it is not just the competitive dynamics of the capitalist world system that catalyze energy regime shifts. The third major factor that prompts such transformations is made up of social mobilizations and conflicts. These are at times the result of uprisings by workers within particular energy industries but may also occur within the sprawling infrastructural assemblages that particular forms of energy make possible. Often, these struggles are knit together, as workers in one portion of the energy assemblage are emboldened by and rise up in solidarity with workers in another. In order to defeat these uprisings, private enterprises and capitalist states may seek out a new energy regime that allows more flexible forms of production and distribution.

This is precisely what happened with coal-based steam power. Just as this energy regime was achieving global primacy in the late nineteenth century, coal production in Western Europe and the United States was disrupted by waves of labor militancy that lasted several decades. Conditions in the coal mines were deplorable, with occasional terrible disasters such as cave-ins and dust- and gas-related explosions leading to hundreds of deaths. Wages for mine workers were often below subsistence level, and in the United States one quarter of the workforce in mines was made up of boys. In response to these dangerous and oppressive conditions, miners formed some of the most militant unions in the industrialized world. Despite the violent repression to which these worker struggles were subjected, newly formed miners’ unions enjoyed a significant strategic advantage: coal had to be transported up out of the earth and then to urban markets by rail and barge. Striking miners were joined by militants in the connected rail, docking, and shipping industries in a wave of strikes that lasted from the 1880s until the outbreak of World War I. By shutting down the channels through which coal was transported to industrial cities, these workers gained tremendous political leverage, as Timothy Mitchell documents in *Carbon Democracy*. Miner demands centered not just on amelioration of their pay and working conditions but also on far more sweeping democratic reforms in Europe and the United States. Miners were certainly not alone in their militancy: suffragettes, socialists, and anti-imperialists, among others, were all pushing for social transformation in the liberal, imperialist democracies around the beginning of the twentieth
century. These struggles were most threatening to the established order when they converged. Indeed, as the revolutionary political organizer Rosa Luxemburg argued in *The Mass Strike* (1905), the economically based struggles of workers could intersect with and strengthen revolutionary political struggles in other sectors of society, since the various forms of the mass strike “run through one another, run side by side, cross one another, flow in and over one another [in] a ceaselessly moving, changing sea of phenomena.” The struggles of workers in the coal fields were especially threatening to elites, since they choked off the sources of power that fueled industrial civilization.

Worker power was so threatening to the established order, and their rebellions against the capitalist system were so incomprehensible to its economic architects and intellectual guardians, that workers were represented as fundamentally alien. The illustrations created by middle-class Victorian voyeur Arthur Munby of female coal workers in northern England underline the titillating alterity of energy-sector labor. The women pit brow workers are short, squat, and black-colored in face and limb. They appear to be almost of a different species than the tall, thin, and completely white members of the bourgeoisie with whom Munby frequently juxtaposes them for shocking effect. Anne McClintock has argued that Munby’s images draw on social Darwinian tropes, broadly accepted among members of the Victorian middle class, about the racial degeneration of the British working class. That is, Munby’s drawings suggest that work in the mines provoked a transformation in members of the working class such that they came to resemble putatively less evolved Africans. By burrowing deep into the entrails of the earth they have also regressed in time, falling back down the evolutionary stepladder to the point that they share little in body and intellect with the nation’s bourgeoisie. Munby’s images exacerbate powerful anxieties about class difference that are also animated by fears about the purported racial divides observed in an imperial context. Ironically, these tropes of difference, germinated in order to legitimate imperial power, came back to the metropole to haunt the Victorian elite as British coal miners became increasingly militant in their demands not just for higher wages but also for a leveling of the gaping social hierarchies of the age.

H. G. Wells’s first novel, *The Time Machine* (1895), crystallizes many of these anxieties about the direction of history and the character of the working class. Wells had won a scholarship to study biology in London under T. H. Huxley, a well-known protégé of Darwin, during which time Wells
began to write works of speculative fiction that explored then-popular ideas of degeneration. *The Time Machine* opens with a framing narrative in which an unnamed narrator describes a visit to the home of a well-known amateur scientist, who explains to the narrator and the rest of the skeptical company he has assembled that he has discovered how to move about in time, the fourth dimension, just as others are able to move about in space. When the skeptical guests assemble again a week later, the scientist stumbles into the room in a disheveled state and narrates the tale of his travel in time. The scientist, catapulted eight hundred thousand years into the future by his machine, finds himself in a civilization populated by the gentle, childlike Eloi. These people, he speculates, are the descendants of the communist society whose doctrines haunted bourgeois European cultures at the time that Wells was writing. The scientist guesses that, free of any competition to survive as a result of the triumph of communism’s egalitarian ethos, humanity must have degenerated into a condition of puerile fragility.

As he explores this civilization of the future, however, the time traveler realizes that his initial hypothesis was flawed. The reckless simplicity of the Eloi, he learns, is sustained by the labor of the Morlocks, hideous creatures who live and toil in subterranean warrens beneath the brightly sunlit world of the Eloi. Wells’s time traveler here extrapolates from the increasing class conflict that characterized the beginning of the twentieth century to represent a world in which the dominance of the bourgeoisie has become so absolute that two separate races have evolved. The Morlocks, who manufacture the products on which the Eloi depend, might be said to represent the proletariat in general. But their subterranean world of giant machines, which seems in some way to provide power for the carefree Eloi, suggests that they bear more than a passing resemblance to the coal workers whom Munby depicted as degenerate brutes. Wells’s time traveler articulates precisely such fears of degeneration after he climbs down into the world of the Morlocks. He barely escapes alive but sees enough to realize that the tables have turned: the Morlocks are not the oppressed class, haplessly exploited by the Eloi. Instead, the Morlocks are a race of cannibals who venture out at night to gorge on the Eloi, whom they keep alive like placid fatted calves. The instinctive sympathy the time traveler felt for the Eloi, exemplified most explicitly in his taboo-defying attraction to a childlike female named Weena, is heightened as he realizes that he too has now become the Morlocks’ prey. Although the time traveler manages to escape this demise by stealing his time machine back from the Morlocks, his
fate grows only bleaker as he lurches even further forward in time. Voyaging thirty million years into the future, the time traveler witnesses the grim scenario about which Lord Kelvin speculated earlier in the nineteenth century: the heat death of the sun. The specter of energy-worker rebellion thus comes to overlap with fin de siècle fears about the unwinding of the universe’s primal energies.

The American Century and the Control of Oil (Workers)

Just as workers were gaining significant power through mass action in the coal-based energy system, however, a new petroleum-based energy regime was being born. Commercial drilling for oil had begun in various parts of the world in the mid-nineteenth century. Edwin Drake’s 1859 well near Titusville, Pennsylvania, is often considered the first modern well, but the oil industry was a global enterprise from the start, with drilling going on in Britain, Poland, and Azerbaijan, among other places. This oil was mostly refined into kerosene to be used for lighting in homes and streets. Oil may have been lucrative, but it did not initially appear to be the base for an energy regime that could compete with coal. Indeed, the 1876 Centennial Exhibition in Philadelphia devoted little attention to petroleum-based technologies. But oil quickly assumed pivotal geopolitical significance as an interimperial rivalry between Britain and Germany emerged in the late nineteenth century. As a result of petroleum’s high energy content, oil-powered ships could travel twice as far as coal-powered steamships, and because of the ease of transporting oil, ships using it could refuel at sea, giving an oil-powered navy decisive strategic advantages. After the passage of the German Naval Law of 1900, which called for the construction of a new oil-powered fleet of battleships and cruisers, Britain found its global naval hegemony imperiled. Under the leadership of Winston Churchill, the British navy responded to the German buildup by beginning an aggressive campaign to switch its fleet to oil. This in turn necessitated a fresh round of imperial expansion, since Britain had abundant domestic coal reserves but no petroleum. In the summer of 1914, just as World War I was beginning, Britain acquired a 51 percent stake in the Anglo-Persian Oil Company, which agreed to provide the British navy with a twenty-year supply of oil on favorable terms. Thus began the West’s long history of oil-fueled imperial meddling and warfare in the Middle East.
The unique material characteristics of oil—the ease with which it can be extracted from the ground and transported by pipelines and ships—was key not just in interimperial competition but also in routing the militant coal workers of Europe and in defeating demands for self-determination in oil-rich nations such as Iran and Iraq. In contrast with coal, oil requires a relatively small labor force; all you need, in the iconic image of the wildcatting oil prospector, is a ramshackle drilling rig and a bit of luck, and you can hit a gusher that makes you rich beyond your wildest dreams. Oil also flows easily through multiple channels, making it far more difficult for workers to choke off supplies as coal miners and their allies were able to do by occupying strategic shipment points in the coal infrastructure. The invention of infrastructures such as the oil pipeline, bulk tanker, and large storage tanks meant that oil could be transported almost without manual labor, a stark difference from the coal assemblage. When workers tried to choke off supplies of oil, companies could simply shift the conduits through which oil was moved.\(^{18}\)

Oil played an important role in defeating popular struggles after 1945. When coal miners in France’s Communist Party–led union movement went on strike shortly after World War II in response to rapid inflation, the newly dominant United States organized an aid package known as the Marshall Plan, a key ingredient of which was the conversion of Europe’s energy systems from coal to oil.\(^{19}\) This shift in energy regimes decisively weakened the power of the organized working class in Europe. In addition, since Europe lacked significant quantities of oil, arrangements were put in place for American companies to ship oil in from the Middle East. Most of these oil supplies came from Saudi Arabia, where US oil companies and the American government were intent on propping up the unstable regime of Ibn Saud. Since payments for Saudi oil were made in dollars provided through the Marshall Plan, the recovery package also conveniently established the dollar as the basis of the global financial system. On the back of these US subsidies, oil’s share of Western Europe’s energy consumption went from one-tenth in 1948 to almost one-third by 1960.\(^{20}\) The rise of the oil-based energy regime was thus driven to a significant extent by elite efforts in the United States and Europe to quash the power of militant workers in one of the economy’s most strategic sectors, but it was also motivated by and inextricably linked to the rise of a new geopolitical hegemony. The shift to a new global energy regime coincided with and helped reinforce the new American Century.
Contrary to the concerns about an oversupply of oil that have circulated in recent years in tandem with the notion of peak oil, the foundational strategy of the American Century was a determination to keep supplies of oil limited and prices cheap and predictable. This entailed a struggle to control and limit production of oil both domestically and on the international stage. In the late nineteenth century, there was only one significant oil-exporting region in the world: northeastern Pennsylania. By controlling the refineries through which this oil flowed, one company, Standard Oil, came to dominate the global commerce in oil. But that quickly changed, particularly as European oil companies began discovering oil in the Middle East. Early in the twentieth century, oil companies such as Royal Dutch, Shell, Deutsche Bank, and Burmah Oil prodded local rulers into granting them concessions to oil discovered in Egypt, Persia (known as Iran after 1935), the Ottoman provinces of Baghdad and Mosul (which became part of the state of Iraq in 1920), and other parts of the Middle East. When Standard Oil found that it could not destroy these competitors, it instead came to terms with them, creating a Western cartel that worked to restrict the worldwide production and marketing of oil and to guarantee that nascent Middle Eastern nations would not upset the cartel’s tightly controlled arrangements through independent oil production.21 The initial aim of oil prospecting was thus, counterintuitively, not to produce more oil but rather to keep fresh supplies off the market. Companies that discovered oil in places such as Mosul would simply not pump it up from underground.

When anticlonial struggles spread through the Middle East in the early to mid-twentieth century, the United States played a key role as the world’s swing producer, capable of increasing production when governments tried to gain control of their oil supplies through nationalization. This allowed such upstart regimes to be isolated and their freshly nationalized oil supplies to be kept off international markets. For instance, after the Iranian government under Mohammad Mossadegh took over the Anglo-Iranian Oil Company (formerly the Anglo-Persian Oil Company) in 1952, the United States increased production in order to enable an effective international boycott of Iranian oil.22 When these measures did not succeed in reversing the nationalization of Iranian oil, the CIA orchestrated a coup that overthrew the Mossadegh administration, funneling millions of dollars into the country to buy off Mossadegh’s supporters and to bankroll street protests against his democratically elected government.23 Under US oversight, Mohammad Reza Pahlavi was
installed as shah, ruling Iran with increasingly despotic means and serving as America’s primary military surrogate in the Gulf region until the revolution of 1979. In some cases, the threat of violence against the efforts of anti-colonial nationalists to gain control of the energy commons was even more naked: in 1945, for instance, FDR struck a deal with Ibn Saud that committed the United States to intervene militarily to defend the Saudi regime from internal and external aggressors. In sum, powers such as the United States and the oil companies based therein deployed a panoply of measures, from quiet diplomacy to crushing military force, to govern the global energy commons.

Abdelrahman Munif’s Cities of Salt fiction series offers an epic account of this sordid history of petro-imperialism and the rise of tyrannical puppet regimes in the Middle East, one that scathingly debunks the anodyne propaganda of American oil companies concerning their role in bringing development to the region. The titular first volume of the quintet chronicles first the destruction of life in a Bedouin oasis following the discovery of oil by prospectors from the United States and then the transformation of a coastal town into a refinery complex staffed by American oilmen and the displaced and hyperexploited Bedouin who have been recruited to work there. The Americans remake the town of Harran in the image of a US Jim Crow city, with a luxurious, gated suburban enclave complete with swimming pool, cinema, and air-conditioned bungalows for the white workers set against a bleak compound consisting of intolerably hot metal shacks for the Arab workers. But the physical privations experienced by the Bedouin men dragooned into the wage economy pale in comparison with the cultural and emotional slights heaped on them by their new American overlords. As Robert Vitalis has documented, the American oilmen brought with them attitudes and comportments forged not simply by the racist mores of the US plantation economy but also by the longer history of settler colonialism in the Americas. While documenting Bedouin culture with ethnographic precision, the oilmen also mock and belittle the disorientation of the Arab workers as they struggle to master new regimes of labor in an unfamiliar cultural milieu. The workers are forced to wear Western clothes entirely inappropriate for the local climate; they are subjected to demeaning identity checks and pumped for useful cultural information; and they are roundly abused by a new comprador class of supercilious Arab translators, merchants, and local rulers. When the workers complain about losses such as a young Bedouin man who tragically drowns, the Americans refuse to recognize, let alone compensate, them. The
humiliations accumulate gradually, until the simultaneous death by beating of
the town’s traditional healer and the company firing of a large group of work-
ers provoke a protest movement. The Arab workers of Harran go on strike,
demanding the reinstatement of their colleagues and an honest investigation
of the healer’s death. Strengthened by rumors of the reappearance of the des-
ert rebel Miteb al-Hathal, patriarch of the uprooted oasis, they overwhelm a
detachment of trigger-happy soldiers, free a group of detained workers, and
force the technology-addled local emir to flee.

In his seminal essay on “Petrofiction,” Amitav Ghosh argues that Munif’s
depiction of the successful strike is the major weakness in his otherwise
dead-on account of the myriad indignities visited on the Bedouin popula-
tions of Saudi Arabia following the discovery of oil. As Rob Nixon astutely
points out, Munif’s novel is indebted to novels of collective struggle such as
Emile Zola’s *Germinal* and Ousmane Sembene’s *God’s Bits of Wood*, works
that depart from the tradition of the bourgeois novel by featuring multiple
protagonists whose oppressed state ultimately culminates in explosive social
rebellion. But instead of celebrating this formal departure and political
commitment, Ghosh argues that Munif’s residence in the former Yugosla-
via during the Tito era influenced him to conclude his novel with a saccha-
rine working-class victory. Ghosh is correct inasmuch as the Dhahran strike
of 1953, which clearly serves as an inspiration for Munif’s novel, was quashed.
When Aramco’s Saudi workers struck for higher wages and better housing in
Dhahran, which by that time was also the site of an American air force base,
the monarchy sent in troops and forced the workers to return to work.

But the Dhahran strike is not the only historical antecedent for Munif’s
novel, which was published in Arabic in 1984: the Iranian Revolution had con-
vulsed the Middle East during the years just before the publication of Munif’s
work. To the extent that Ayatollah Ruhollah Khomeini appropriated the popu-
list anticolonial rhetoric of Iranian intellectuals such as the Fanon-influenced
Ali Shariati, the Iranian Revolution and the regime established in its wake con-
stituted a profound menace to US client regimes such as the Saudi monarchy.
The threat was underlined when, not six months after the Iranian Revolution’s
successful ousting of the shah, a group of 250 heavily armed militants seized
the Grand Mosque in Mecca during the annual hajj, taking thousands of pil-
grims hostage. The attackers were Sunnis and had no direct links to Shi’ite
Iran, but, clearly inspired by the Iranian Revolution, they denounced the Saud
family’s lack of Islamic rigor; extravagant Lamborghini-driving, polo-playing

Energy and Autonomy
lifestyle; and subservience to America. The monarchy sent in the military, leading to weeks of heavy combat and carnage that culminated in the capture and beheading of sixty-three rebels. This event, which took place during the Iranian hostage crisis, was largely ignored by the international media but inflamed Muslim rage against the United States, whom Khomeini blamed for the events. Following the attack, King Khalid of Saudi Arabia implemented a stricter enforcement of religious law and gave religious conservatives more power in the kingdom in an effort to neutralize the messianic populism evident during the seizure of the Grand Mosque. These measures were insufficient, however, to quell these populist currents, which led ultimately to the formation of al-Qaeda and subsequent epigones.

The uprising that concludes Cities of Salt is not animated by the kind of secular workerist dogma that Ghosh rather derisively attributes to Munif. Rather, the anger of the workers is stoked by the anti-imperial denunciations of a religious character named Ibn Naffeh. Initially introduced as a risible crank, someone out of step not simply with the new town being created by the Americans but also with the canny strategies of merchants such as Ibn Rashed, Ibn Naffeh becomes a pivotal character in the novel’s depiction of the popular uprising in Harran. He blames the murder of the town healer on the Americans, and as the people of the town gather for a protest march, he delivers a speech after Friday prayers at the mosque in which he reminds them that it is the duty of the Arab people to resist oppression. It is the shooting of Ibn Naffeh during the march that leads the workers and their allies among the townspeople to storm the oil company compound and free the captive workers. Ibn Naffeh, who survives the shooting, is given the novel’s final word, when, following the ignominious flight of the emir from Harran, he pronounces that the Americans are the source of the people’s problems. The novel’s concluding message is thus not so much one of traditional proletarian solidarity and struggle over working conditions as it is one of zealous anti-imperialism cloaked in religious and populist rhetoric. Munif’s novel should therefore be seen not as a distorted account of a decades-old strike but rather as a telling rendition of the rise of insurrectionary Islam on the back of frustrated desires for democracy and simmering anger at the collusion of local petro-despots with US empire. If the American Century was predicated on control of global oil supplies and the client regimes that bring the devil’s excrement out of the earth and to market, it would prove to be a dominion
just as unstable and unsustainable as the cities of salt that provide the title of Munif’s great fiction series.

Prisoners of the American Dream

In one of the most influential theorizations of working-class power during the high era of petroculture, Antonio Negri argued that labor is characterized by an ineradicable autonomy from capital. For Negri, labor is its own self-generating power or force—called potenza in Italian—that emerges from the bodies and minds of workers. It is consequently autonomous from capital and cannot be fully subordinated to the domineering designs of the bourgeoisie. No matter how powerful and apparently victorious the capitalist, workers will always retain residual traces of autonomous subjectivity that can reject his authority. Negri made these arguments while participating in the uprisings of the anni di piombo, or “years of lead,” in Italy during the 1970s, when worker struggles grew increasingly intense on factory floors, spilling out into the streets and joining with many broader social movements that challenged the enduring inequalities in capitalist societies. Yet just as organizations such as Potere Operiao in Italy and the Dodge Revolutionary Union Movement (DRUM) in Detroit were fighting for greater worker control on the factory floor and over the social machine more broadly, capital was experimenting with novel ways to crush worker autonomy. Fossil capital was particularly successful in its war against workers. In the Middle East, as Ghosh notes in his critique of Munif, this war took the form of an amplification of the Jim Crow tactics of racial stratification documented in Cities of Salt. To keep the number of Arab workers in the oil industry low, the oil sheikhdoms imported large numbers of migrant workers from the poorer countries of Asia. As Ghosh memorably comments, this created “a class that is all the more amenable to control for being perpetually under threat of deportation . . . , a class of helots, with virtually no rights at all.” Through the creation of a new international division of labor, in other words, capital undermined—at least temporarily—any capacity of workers to act autonomously in a particular national context. If capital (and oil) could flow freely across political boundaries, the movement of workers was tightly controlled in order to retain the most easily exploited reserve army of labor.
While similar strategies were being experimented with in Western Europe and North America, where so-called guest-worker programs helped provide a reserve of insecure labor, fossil capital also amplified its use of another weapon of class war during this period: automation. In response to strikes by the Oil Workers International Union in refineries along the US Gulf Coast, oil companies introduced machinery that made the production process increasingly autonomous of human beings. For example, as Matt Huber documents, by the late 1950s computer technologies were being used in refineries to monitor and control refining processes. As such automation took hold, strikes not only became less effective but also allowed fossil capital to explore possibilities for making human labor redundant. As an article in the *Oil and Gas Journal* crowed, “One of the ironies of the strikes has been the discovery by the companies that they could run the refineries with still fewer people without sacrificing safety or efficiency.” The effectiveness of this strategy and the helplessness of workers to combat automation was made evident during a strike by the Oil, Chemical, and Atomic Workers International Union at a Shell refinery in 1963. Shell was able to operate the refinery at near full capacity throughout the year-long strike, and the union was forced to agree to a very modest wage increase in exchange for the firing of nearly a quarter of the workforce. Fossil capital had hence made significant strides toward making itself autonomous of labor, rather than vice versa, and had turned the worker into human surplus in the process. It is not surprising that this process of automation should occur first and foremost in the domain of fossil capital. After all, capital has historically been dependent on fossil fuels in order to chart what George Caffentzis calls “technological paths to repression.” In other words, in order to break workers’ power over the production of commodities, capital depends on fossil fuels to provide counterenergy capable of powering the machines that substitute for human labor. Fossil energy, then, is a decisive factor in capital’s efforts to win the class struggle.

Jennifer Haigh’s novel *Heat and Light* (2016) delivers a bleak but nonetheless engrossing and often amusing exploration of the tragic fragmentation of US society in the face of the most recent avatar of fossil capitalism: the fracking industry. Like Munif’s *Cities of Salt*, Haigh’s work is a choral novel, with myriad characters who occupy a multitude of different social positions, from victims to beneficiaries to agents of the fracking industry. The novel is set in rural Pennsylvania, where the Texas-based Dark Elephant Energy Company has begun buying up rights to subsurface minerals and drilling wells to get at
the oil and gas deposits made newly accessible by hydrofracking technology. Haigh draws witheringly satirical portraits of Texas oil barons like Kip “The Whip” Oliphant, who spouts New Age bromides such as “Now is the time to leverage our first-mover advantage” while he puts his firm ever deeper into debt in order to get at the rich load of carbon sequestered in Pennsylvania’s Marcellus Shale. But the novel is most powerful in its depiction of the predatory relationship between the hapless local residents of the town of Bakerton and the emissaries of the fracking industry who arrive to suck their land and their future dry.

A perfect example of such predation is found in the character of Bobby Frame, the scrupulously clean-living Mormon con man sent by Dark Elephant to convince unwitting farmers to sign leases that permit the company to begin drilling on their land. Frame, Haigh writes, doesn’t care a whit about the carbon-based boom-and-bust history of Bakerton that has left locals so penniless and thus so vulnerable to his promises of quick and easy riches. Frame’s mild manner and apparently artless patter—“Beautiful property you’ve got here”—conceal ambitions to exploit the land and those who reside on it to the hilt. Haigh also gives us characters such as Herc, the foreman of the Dark Elephant drilling crew. Although Herc refuses to live in the dispiriting man camp set up by the company, he cannot escape the alienating impact of an oilman’s rootless life. His marriage in Texas foundering, he takes up with the lonely Pastor Jess in Bakerton but of course neglects to tell her that he’s married. His silence and exploitation of Jess serves as an allegory of the broader exploitation of Bakerton’s hapless residents by fossil capital. In perhaps the most discouraging thread of Heat and Light, Haigh suggests that even antifracking activists such as the geologist Lorne Trexler are interested in local people only to the extent that they can be used to further their own agenda. Although Heat and Light offers glimmers of hope—such as the coming to political consciousness of Rena, whose life on an organic dairy farm with her lesbian partner, Mack, is menaced by the arrival of fracking—there is precious little genuine solidarity and no viable resistance to be found in the novel. Indeed, it is the vagaries of the stock market rather than any popular uprising against fracking that ultimately bring Dark Elephant down.

Such pessimism is a telling reflection of the demoralized state of progressive forces in the United States. Labor unions in the United States, for example, have reacted to the dramatic deterioration of their position, which has resulted from a combination of technological changes like automation and
a full-frontal political attack waged in the courts and legislatures since the 1970s, by adopting a blinkered defense of workers in the most secure sectors of the economy. They have thereby amplified capital’s traditional strategy of segmenting the labor force in order to play workers off one another. As Mike Davis puts it in his blistering critique of the labor movement, “Unions have closed in around the laager of the seniority system, abandoning the unemployed, betraying the trust of working-class communities, and treating young workers as expendable pawns. Such a blinkered, Maginot-like defense of existing employment privileges risks the creation of a reactive anti-solidarity, as the unemployed become strike breakers, or the second-class citizens of the lower wage tiers decertify unions that have failed to represent them.”

The support of groups such as NABTU for the policies of the Trump administration, including the build-out of planet-destroying pipeline infrastructure, is a sorry example of the extent to which relatively elite workers are willing to put short-term interests before solidarity with other workers who have stood against fossil capitalism. To take this stance is also to reject solidarity with frontline communities in places like Standing Rock in the United States, to ignore the impact of further fossil infrastructure on vulnerable populations around the world, and to become complicit in the unfolding tragedy of planetary ecocide more broadly.

But the capitulation of powerful sectors of the labor movement to fossil capital has not happened in a void. In 2008, inspired by neoliberal Thomas Friedman’s use of the term, Barack Obama promised workers in the United States a “Green New Deal.” But Obama and the Democrats’ tepid market-oriented proposals included items such as the Waxman-Markey cap-and-trade bill, which proposed a gamut of corporate-friendly half measures that would have achieved minimal reductions in emissions. It satisfied no one and went nowhere. Promises to create millions of well-paying green jobs evaporated as fiscal austerity became dogma, and Obama shelved the Green New Deal rhetoric after the midterm elections. It is therefore not surprising that what’s left of the labor aristocracy should be leery of promises about green jobs. Today the idea of a Green New Deal is being revived, this time by overt socialists like Alexandria Ocasio-Cortez. Their proposals are far more sweeping and ambitious and include a determination to reach 100 percent renewable energy in a relatively short time frame and a complete rebuilding and climate-proofing of US infrastructure. This time, the Green New Deal, we are promised, will be of the magnitude of the mobilization for World War II and will include a

Oil Fictions
federal green-jobs guarantee and trillions of dollars of spending calculated to transform the infrastructure of every sector of the US economy. Although few are yet talking about this, one way to fund these ambitious proposals would be through the nationalization and gradual, calculated liquidation of Big Oil. We must be clear that it is only by smashing fossil capitalism that we will end the long war against workers and the planet.

Notes

2. Kaufman, “Democrats’ Drama.”
4. Ibid.
7. On the history of the term just transition, see Sean Sweeney and John Treat, “Trade Unions and Just Transition: The Search for a Transformative Politics” (working paper #11, Trade Unions for Energy Democracy, 2018).
10. To a certain extent this is the story of Orientalism: narratives of cultural supremacy were spun by Western European powers to justify their technological and military edge over once-threatening peer powers such as the Ottoman Empire. See Edward Said, Orientalism (New York: Vintage, 1979).
18. Mitchell, Carbon Democracy, 44.
19. Ibid., 29.
20. Ibid., 31.
21. Ibid., 46.

Energy and Autonomy
36. Cited in Huber, Lifeblood, 62.
37. Ibid., 62.
41. Ibid., 385.