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Watching fracking:

Public engagement in postindustrial Britain

ABSTRACT

The UK government's efforts to facilitate shale gas exploration have been matched by a surge of public opposition. The latter has manifested in a broad spectrum of activities in which local communities have "watched fracking"—meaning they have observed, protested, and filmed outside the drilling site, often taking note of when the pumps start and stop. Drawing on ethnographic fieldwork in northwest England, I analyze residents' various "watching" activities as one dynamic through which they sought to mediate situated modes of sociopolitical erasure. Watching fracking was a form of directly participating in public matters, compensating the watchers for the state's perceived failures and those of corporate models of community engagement. It also helped members of the anti-fracking community distance themselves from the state and their own feelings of alienation. By thus highlighting how disappointment with state formations interacts with an activist subjectivity, anthropologists can deepen our understanding of the changing relationship between state and society. [*fracking, public engagement, state, citizen science, protest, extractive industry, Lancashire, United Kingdom*]

It's become like home and a day-to-day workplace, Gill told me, squinting at the drilling rig working in the distance.¹ She was standing outside a metal fence bordering a natural gas exploration site in the Fylde, a coastal plain in Lancashire County, northwestern England. A few months later at the same site, high-pressure pumps would be forcing water mixed with sand and chemicals underground to crack the shale underneath and release gas. The process is called hydraulic fracturing, or fracking. Facing the daily protest at the site from local residents like Gill, the operating company sought an injunction from London's High Court of Justice to prohibit protesters from physically blocking the company's everyday operations. "With the protest injunction," Gill said, "we were told that we couldn't use our bodies. Later, our fence art was destroyed, so we couldn't use our art." *And yet you're still here every day*, I thought to myself. Indeed, local residents like Gill were always there at the gates, observing, protesting, getting arrested, filming, eating, Facebooking, and singing. Amid all this activity, one practice remained unchanged: they always took note of when the pumps started and stopped, as well as the registration number of every vehicle entering the site. They also tracked the 57 tremors induced by the fracking at the site from October to December 2018 and a further 134 in August 2019. They documented the fumes from generators pumping fluid into a borehole two kilometers underground.

These local residents monitored activities at the drilling pad 24 hours a day, even through the freezing cold and rain, and under constant police surveillance. As I visited them, I often wondered why watching the process of gas exploration was so important, especially given that authorized monitoring equipment already surrounded the gas site. Although the residents always meticulously recorded various kinds of information, such as noise levels and the number of vehicles entering the site, and kept minutes from regular meetings of the Community Liaison Group,

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which brought them together with representatives from the gas company, I only rarely saw this information used to officially challenge the gas company or government regulators in ways that we are accustomed to from the anthropological scholarship on citizen science (e.g., Ottinger 2017; Polleri 2019; Wylie 2018). Indeed, when the residents' information on the progress of drilling was compared to that provided by the company, the two data sets varied only slightly. The information, therefore, did not seem to be an end in itself but an index of something else. Nor was watching simply a form of protest aimed at producing as much disruption as possible. Why, then, did people of various backgrounds watch fracking, and what did it mean to those who lived, worked, and protested near the fracking site in Lancashire?

Throughout the four years that I spent doing fieldwork with these protesters, I observed a dizzying array of ways in which they engaged the shale gas industry, which was setting up shop in their community. While each citizen-led activity could be analyzed separately as a case study of citizen science, a protest camp, or a planning meeting, I wanted to bring together all of these activities as part of one dynamic, because the same people took part in several of them and supported one another's actions. During fieldwork, it became clear that through their different forms of engagement, anti-fracking residents shared a common commitment and saw one another's actions as complementary. As one of them told me, "There are no people who are most important. We are all cogs in a machine." Reflecting my research participants' assessment of their work, I gave their different activities the collective name *watching fracking*.

By analyzing different forms of public engagement with a controversial industry, we might be able to tease out the general dynamics of often fleeting grassroots initiatives. The latter can thus appear not as particular forms but as situated social forces that are in formation, giving us conceptual means to talk about the changing relationships between state and society. I became interested in searching for such an interpretation because the rich spectrum of watching activities at my fieldwork site was vexing to many of my colleagues outside the social sciences, to say nothing of the industry, which never missed an opportunity to ask me what could be done to overcome people's distrust and opposition to fracking. I was always frustrated not so much with my inability (and reluctance) to answer their question as with the incompleteness of my explanations. They did not do justice to the complex mesh of situated, local, and national dynamics that fueled the diverse, long-term, and physically and emotionally exhausting ways of monitoring and delaying the fracking activities.

If we analyze the different forms of watching fracking as examples of the same dynamic and disposition, we can begin to understand it as a popular response to a sense of social erasure and political disenfranchisement, the mechanisms of which have settled in postindustrial Britain.

Watching, as I understand it, was a new form of compensatory, direct participation in public matters in the context of disorienting socioeconomic conditions after Brexit and decades of neoliberal policies that have hollowed out the state's democratic potentials. In addition to this national context, watching was also a situated response, grounded in everyday, local conditions and forms of experiential knowing. Through watching fracking, residents wanted to understand and transform the relations and hierarchies underpinning a complex industrial operation that was largely hidden by not only the high fences surrounding the site but also impenetrable networks and forms of state-corporate dependencies. Watching fracking had two objects—it was about collecting meaningful appearances and glimpses of a potentially harmful industrial process, and it was about changing state-society relations that are mediated by the operational requirements of a corporate form. The watchers all exhibited a similar disposition, characterized by deep distrust of the state and industry, as well as a determination to engage with fracking on their own terms. Watching fracking, therefore, set its own terms of participation that revealed, questioned, and displaced the boundaries of formal public engagement imposed on ordinary citizens.

In this context, I have two contributions to make in this article: I want to (1) present watching fracking as a local response to a sense of sociopolitical erasure and (2) understand its appeal among the anti-fracking community in the context of the changing relationship between state and society. As I show below, direct participation through watching cannot be understood as therapeutic in the common sense, since it did not relieve the tension that stemmed from the uncertainty surrounding elements of a complicated and secretive industrial process (although it did achieve that to some extent). Instead, it was appealing because it offered a way to distance and disentangle oneself from the workings of the corporatized state. This transgressive practice helped residents regain a (limited) sense of agency because they could directly confront the state and industry responsible for changing their immediate environments.

The "rig watch"—which I describe in the next section—operated across a busy road and through a rectangular break in the tall hedgerows bordering the gas site. Similarly, people around the world may be struggling to know exactly how their lives are being undermined by complex corporate-mediated processes, and they may strongly believe that such processes have to be watched. Similar popular inklings may have been the source of controversies surrounding genetically modified organisms, 5G networks, or vaccines for Covid-19. These general dynamics of public distrust may signify a problem that is deeper than the inability of state regulators or companies to provide reliable information on the impacts of a commercial process. If, as I suggest here, watching fracking can be more productively



Figure 1. Shale gas exploration site on Preston New Road, Lancashire County, northwestern England, during the fracking phase, November 5, 2018. (Anna Szolucha) [This figure appears in color in the online issue]

understood as a mode of direct participation, is there anything we can learn from the fracking watchers of northwest England to help us better understand a more common societal predicament?

In pondering on these questions, I draw on ethnographic fieldwork that involved multiple research visits lasting from two weeks to seven months over a 46-month period from 2015 to 2019. The ethnographic material includes in-depth interviews and informal conversations with residents, business owners, activists, police officers, and farmers. The fieldwork involved my regular presence at the entrance to the fracking site, along with residential canvassing and participant observation during local events related to shale gas development.

Fracking in the UK has been a notoriously controversial topic. Researching the issue, I had to carefully navigate the captivating worlds of activism and industry, as well as naive notions of scientific objectivity. I secured initial access to grassroots anti-fracking groups through a personal contact who vouched for me. My agreement with these groups has always been that my task was to do research, and they did not press me to identify as anti- or pro-fracking, and I never

have. I have gradually built up their trust by organizing local research-based events and by contributing my analysis during the planning process. As fracking progressed, people who came to the site gates changed, and through canvassing, I broadened the circle of my research participants to include farmers, business owners, and police officers, all of whom had very different opinions on fracking. The process of building relationships was therefore continual, and to conduct my research I never had to explicitly declare a particular position regarding fracking. Since my work focuses on the impacts of shale gas exploration on communities, I have prioritized local experiences.

The most-watched site in the UK

The morning rush hour was almost over on the busy Preston New Road (PNR), and most commuting workers were already behind their desks and counters in Blackpool or Preston—the two biggest urban centers closest to the borough of Fylde. The gas-drilling site on PNR (see Figure 1) was operated by Cuadrilla Resources, an oil and gas company registered in the UK but owned by

companies registered offshore. It was the UK's first horizontal shale gas exploration well. The UK's coalition (2010–15) and later its Conservative governments (2015–present) enthusiastically supported shale gas development, but the government's enthusiasm for fracking has waned, and since November 2019 there has been a moratorium on fracking. In the project's early days, however, the PNR well was to be the first to “prove the concept of safe shale gas exploration” (*Guardian* 2015), as the finance minister put it in a leaked letter to his colleagues. He also said it was necessary to more centrally regulate fracking, and he urged his fellow ministers to make it their priority to respond to several “asks from Cuadrilla” to reduce risks and delays to drilling. In public, however, the government has largely made the case for this kind of development based on the technoscientific legitimacy of the state and private industry, both of which are tasked with monitoring fracking.

According to these official narratives, I was not supposed to see, smell, or feel anything peculiar as I approached the drilling site, which was bounded with several fences and barriers on all sides. Almost imperceptibly, cabinets and small fenced enclosures for monitoring equipment appeared, quilting the open countryside around PNR. State regulatory agencies and Cuadrilla constructed air-monitoring stations and groundwater-testing boreholes that were regularly checked by teams from regulatory bodies to reassure residents that there were no harmful emissions or leaks. Meanwhile, local farmers maintained a patchwork of seismic monitoring stations on their land, 80 of them buried and nine aboveground, to track seismicity around the drilling pad. When I spoke to residents whom I met at the pad entrance, some proudly asserted that “this is the most-watched site in the UK.” They did not, however, refer to the official ways of monitoring gas exploration.

Instead, they talked about a wide range of creative practices that they engaged in to watch fracking. These included participating in the planning process, making inquiries, attending meetings of the Community Liaison Group, and filing lawsuits. More informal, contentious, and citizen-led ways of watching fracking included establishing several local “community protection camps” and engaging in drone activism, daily protest at the site, direct action (such as blocking traffic to the site), video activism, citizen science initiatives, and “rig watch.” Through rig watch, anti-fracking residents observed and documented the activity at the PNR site over 812 days, 24 hours a day, commencing with the pad's construction phase in 2017 and ending in November 2019, after the moratorium on fracking was announced and Cuadrilla's planning permission to frack expired.

The closer I got to the fracking pad, the more the unobtrusive monitoring infrastructure gave way to visible and overwhelming means of controlling the potentially unruly

forms contesting shale gas development. Large red signs on the site's fence announced that a High Court injunction was in force to discourage anybody from interfering with the shale gas activities at PNR. Two new cameras mounted on tall lampposts allowed the police to follow residents' movements and zoom in on their bodies and cars as they arrived at the site entrance. By the time I could see the lights on the fracking rig, I passed at least five police vehicles, including two “riot vans,” as they were known, pertaining to the Lancashire Operations Support Unit. A special parking bay was constructed near the pad's entrance to comfortably accommodate two police vans as more than a dozen officers sat inside almost every hour and every day of the shale gas operations, ready to come out if protesters tried to blockade the entrance (Szolucha 2021b).

Their imposing presence seemed out of sync with the appearance of a meticulously monitored landscape of resource exploration (Szolucha 2021a). It signified the persistence of an unresolved tension between, on the one hand, the democratic vote of the community whose representatives rejected fracking and, on the other hand, corporate efficiency. In 2015 elected representatives at the Lancashire County Council decided not to grant Cuadrilla permission to frack. But the company appealed, and the central government's secretary of state—and not an independent planning inspector, who would usually make this decision—overruled the original decision and allowed fracking at PNR. This led many local residents to say they had lost their faith in democracy. “I was brought up to believe that democracy was democracy and that was that,” one of them said. “And it just smacked me in the face, so [. . .] I've done everything that I possibly can [. . .] to stop [fracking].”

When I arrived at the site entrance, the atmosphere was tense. A tanker was waiting to come off site. Someone blew a whistle and “Which Side Are You On?”—a legendary song from miners' strikes—was playing in the background, a sign that protesters were probably going to try to block the vehicle. When the police stopped the traffic to allow the six-axle vehicle to take a turn over the middle lane, a few protesters tried to get in its way. At the last moment, Martha ran in front of the truck. As she ran backward with her mobile recording in hand, I saw Martha's petrified face as she realized the truck was not going to stop and she could trip at any moment. A couple of police officers ran over and dragged her out of the way.

Martha pulled no punches with the police. “Go away, you earthquake facilitators!” she yelled at them. “You disgust me!” She retreated to a half-open shack on the side of PNR, across from the fracking site. The “gate camp,” as the shack was called (see Figure 2), served as the main observation point for the anti-fracking residents. There, they gathered round a wood burner for a conversation, coffee, and crumpets. Someone was always reaching for the notebook to jot down the details of a delivery to the fracking



Figure 2. Gate camp on Preston New Road, Lancashire County, northwestern England, November 2, 2018. (Anna Szolucha) [This figure appears in color in the online issue]

site. Considerable effort went into keeping the camp going: donations of food, deliveries of freshwater and wood, the maintenance of the site's toilet. Pairs of anti-fracking residents rotated to keep watch on the fracking site, including at night. Almost every delivery, movement, and sound was recorded in a notebook and on social media. Some were photographed or filmed. A typical “rig watch” summary would read

51 water tankers in . . . 2 large nitrogen tankers and a dirty Lubbers [delivery truck] carrying a nitrogen pump entered site earlier the week. This morning pumps were very loud for 1h 30 min between 11:15 am–12:45 pm. The noises increased in intensity and there was a fair bit of diesel fumes. I really don't know if they were attempting to frack or not. I suspect not. There was not the usual vibrations and other assorted noises we associate with a frack.

Watching fracking seemed almost like a ritual, since it was not always clear—given the technological complexity and the secretive nature of corporate processes involved in resource extraction—what a particular move-

ment, sound, or activity meant, nor was it clear exactly how recording these phenomena could help hold the industry accountable.

Data and protest

Recent anthropological scholarship could explain watching fracking according to the protesters' distrust of the company or the state, and it might claim that anti-frackers, like many residents living near extractive industries, have engaged in a form of citizen science (Wylie, Shapiro, and Liboiron 2017), collecting their own data to capture evidence of potentially harmful activities. In certain ways watching fracking at PNR resembled citizen science. These initiatives usually come about as a response to the government's or industry's failure to provide independent, reliable, and timely data. Although certain regulators like the Environment Agency provided monitoring data for the PNR site, it was released weeks after breaches were detected. Hence, a citizen group active at PNR purchased their own monitoring equipment to control noise and the basic parameters of air and water quality. Activities at the gate camp could also be seen as a form of citizen science because they tried to

fill the gaps in the information that the community received from the company about the progress and details of its operations at the site.

Unlike citizen science, however, watching fracking was not always or even predominantly about collecting data and using scientific methods. The citizens' monitoring of air, water, and noise was not continuous; hence, it largely missed breaches and problems that required constant vigilance and instantaneous reaction, such as suspected cases of water pollution in a local brook. There were also problems with ensuring that the location of the measuring equipment excluded interference from unexpected noises. These issues are common. Research on volunteer water monitoring in Pennsylvania, for example, suggests that using automated devices constrains citizens' agendas and perpetuates expertise-based hierarchies (Jalbert and Kinchy 2016). By focusing on collecting baseline data to challenge operators in the future, citizen monitoring efforts can postpone political action in the present and reinforce the dominant epistemology of regulatory agencies (Kinchy 2017). These cases demonstrate one of the common double binds of citizen science—although ordinary citizens can bolster their credibility with planners and regulators by using the scientific terms and methods recognized by industry and government actors, their adherence to these established formulas can undermine their value-based arguments, which cannot be reflected in quantifiable data. Such an approach limits the scope of claims that citizens can make and reinforces scientism, which asserts the authority of scientific judgment above other forms of knowing.

Lancashire residents involved in the planning process did not manage to avoid these dynamics, and like organizers and activists in Colorado (Zilliox and Smith 2018), they were positioned by the mainstream media as an unruly and uninvited public. In Lancashire, however, the residents started to forcefully raise the issue of local democracy and human rights from the very start of their engagement (Szolucha 2016). Other forms of watching fracking, such as those practiced at the gate camp, also largely escaped the confines of debates constrained to scientific facts. As research from Colorado demonstrates (Zilliox and Smith 2018), citizens can produce scientific data that, despite their limitations, lead to tangible political results. The public's participation and its insistence on transparency may indirectly help change governance and eventually allow citizen groups to not only voice their concerns more freely but also to directly negotiate with oil and gas operators and set stringent rules. Other anthropological scholarship, however, shows that citizen monitoring can become entangled in "conflictual collaboration" with the state: it may support hegemonic understandings of danger and shift the responsibility for dealing with it onto the victims (Polleri 2019). Some ways of watching fracking, such as planning inquiries,

court cases, and liaison group meetings, also required a certain degree of cooperation between citizens and the state or Cuadrilla. Nonetheless, the residents' espoused values of local democracy and human rights starkly contrasted with the centralizing tendencies of the British state and Cuadrilla's attempts to limit opportunities to protest. Hence, citizens' resistance in Lancashire did not evolve into collaboration. Watching fracking showed that popular understandings of democracy can, therefore, be helpful if citizen participation aims to subvert rather than reinforce the power of nation-states and industry.

This raises another issue with citizen science: narratives of local democracy and human rights that were prominent in the controversy over shale gas in Lancashire do not easily map onto quantifiable data. One local told me, "Something we think is so wrong [. . .] is being imposed on us. Lancashire County Council decided against it [. . .] and yet the government, they say, nationally we want to drive this through and [a government minister] is stepping in to [. . .] override local democracy." It is very difficult to imagine the type of quantitative data that could buttress such claims, which draw on the values of democracy and rights. Gwen Ottinger (2017) discusses similar instances of "narrative mismatch" when local stories of harm do not easily line up with available data. She contends that this limits the usefulness of certain kinds of data for telling compelling stories of long-term and systemic harm. The incompatibility of people's concerns with the requirements of quantification would explain the apparently loose relationship that some citizens had with quantifiable data at PNR. Scientifically credible information and methodologies were not as important for watching fracking as they usually are in citizen science. Although watchers did report potential breaches concerning, for example, traffic issues, and it was considered useful to do that, those breaches were ultimately important only indirectly for the stories of how fracking violated local democracy (Szolucha 2016). Instead, watching fracking, with its distinct relation to quantifiable data, was a mode in which residents could publicly participate in overseeing an industry in a way that was adequate to their concerns and values.

Some scholars ask how such unquantifiable concerns, as well as other ways of knowing, can be integrated with credible citizen science. Others, however, point out that its main transformative potential may lie not in the credibility of numbers but in the political impacts that citizen science has on those involved, as well as on the broader field of social relations. Sara Ann Wylie (2018), for example, explicitly acknowledges this capacity of "civic social science" in her analysis of various digital networking tools that she helped create to connect the scattered experiences of communities affected by fracking. Although the new civic science tools fell short of instigating industry reform, other scholars note that even failed attempts to bring about regulatory change



Figure 3. Protest at the gates of the Preston New Road fracking site, Lancashire County, northwestern England, October 31, 2018. (Anna Szolucha) [This figure appears in color in the online issue]

can still consolidate oppositional and collective identities of “the people” who deeply resent state and corporate forces, thus laying the grounds for more radical forms of protest (Bosworth 2019). Struggles over local and scientific expertise can create new social relationships and assemble new publics where none existed before. Civic and participatory science can also deepen the communities’ ties to territory and resources, “bringing into being . . . the priorities that it proposes merely to represent” (Hébert and Brock 2017, 81). Watching fracking could create anti-fracking communities and politicize shale gas publics, and this was one of the most visible parallels between it and some citizen science efforts described in the recent scholarship I’ve noted above. But this politicization did not occur primarily through contesting science from within or challenging the dominant environmental standards of judgment. Was rig watch, then, simply a protest camp?

The UK has a rich history of protest camping, particularly in relation to environmental issues. Recent campaigns opposing the building of the second high-speed rail line (HS2) and actions by Reclaim the Power—a network of direct action demonstrators for environmental justice—have

also used this form of protest. Although protest camps in the UK have been set up around the country, watching fracking at PNR had a distinctly community-based character that was shaped by the regional dynamics of direct action and politics in postindustrial Britain. The main base of environmental direct action groups is in the South, while fracking has been mostly delegated to the northern counties, or the “desolate” North, as the UK’s former energy secretary from the South put it (BBC News 2013). The historical North-South divide, implied in his concern that fracking should not take place in “beautiful natural areas” of the South, was further perpetuated by the plans for the Northern Powerhouse—a project name carrying the nostalgic overtones of the North’s industrial past now long gone—which were front and center in the government’s industrial strategy when shale gas rose to prominence. In the context of fracking, Reclaim the Power organized a few series of actions to help the anti-fracking campaign in Lancashire. But the day-to-day protest and watching of fracking were carried out by local residents of towns, villages, and permanent camps around PNR (see Figure 3).

There were several encampments set up near the PNR site. Two were particularly long lasting and were home for activists (mainly from the North) who came to live at PNR for many months. The campers were welcomed by the anti-fracking community, which offered them food and building materials. On Fridays they were invited to a community center where they could have a hot shower and a warm meal. Although some residents resented their presence and perceived them as troublemakers, the activists who lived at the camps became largely integrated with the anti-fracking community to the extent that they were seen as part of the local “patch,” as one parish councillor told me. What later became the gate camp was originally set up right at the gates to the PNR site. Two pallet towers were erected on both sides of the entrance, and a few tents were pitched on the grass verge (shoulder) directly bordering the site. The stated aim of this encampment was to more closely monitor the activities at the site. The police and the bailiffs took the towers down, but the gate camp (as a single shack) moved across the road.

The camps at PNR had all the features characteristic of protest encampments but differed from them in important respects. As with other protest camps, their construction reflected the campers’ DIY perspective and know-how. Their symbolic element consisted of making people aware of the fracking issue as well as prefiguring an alternative way of life informed by values that were broadly anarchist and autonomous (meaning largely anti-capitalist and self-governing). The two most long-lasting “home” camps at PNR provided food and shelter to activists, and the gate camp was a place for sharing information, ideas, and skills, as well as building a common identity. All encampments had a role in fostering the notions of solidarity and care because maintaining the camps’ infrastructure needed constant attention.

At PNR, however, the encampment was not meant to reclaim land or blockade anything. Unlike the Occupy movement’s camps, these did not function to first of all liberate a place and offer a positive political alternative. Rather, they were hubs where activists could join the anti-fracking community’s efforts to watch fracking. As in the case of planning inquiries, community liaison meetings, and citizen science initiatives, the encampments mobilized a unique set of diverse social, political, and cultural resources, which helped expand the repertoire of watching activities at PNR.

Drone and video activism, as well as direct action, were by no means reserved to the campers but were connected to the dynamics of protest encampments in important ways. First, drone and video activism has become an increasingly common feature of social movements (Choi-Fitzpatrick 2020) and of environmental protest that involves reclaiming space. For example, the drones used by the water protectors against the Dakota Access Pipeline at Standing Rock

produced powerful images of political and environmental transgressions (Schnepf 2019). Similarly, drones were used at PNR to document and monitor the progress and difficulties with the drilling and fracking process. Drones allowed the residents to highlight problems with water retention and flooding on the site. They also substantiated their claims that the fracking site was destroying the area’s natural beauty with photographs portraying an industrial site amid a pristine agricultural landscape.

Second, direct action has always gone hand in hand with protest camping, which has entangled both in the politics of watching. When direct action activists now say that “the world is watching,” they usually refer to the global coverage of a particular protest or encampment that they can provide themselves through social media and other direct channels of communication. But when the phrase was first chanted by anti-Vietnam War demonstrators, and later in the 1990s and early 2000s during protests at the summits of the WTO or G8, it was used to underscore the role of mass media to inform the public. With time, this initial reliance on the mainstream media gave way to profound feelings of misrecognition among activists who felt that how they experienced direct action differed drastically from how it was presented on TV screens (Gitlin 1980). Thus, direct action and protest camping have been intertwined with the politics of watching—ways that different actors represent sometimes conflicting images of protest to the public to further a particular narrative or cause.

Watching fracking shared many characteristics and problems with citizen science and protest camping, and it was related to their historically formed models. It confirmed their general dynamics, which built on distrust of the government and industry. Watching also relied on local skills and resources, and it banked on the transformative potential of citizen engagement, which lay more in its ability to mobilize publics than in the power of quantifying environmental impacts. Rather than just civic inquisitiveness or an ideological disposition, therefore, watching fracking manifested the anti-frackers’ desire to engage with this industrial process on their own terms. As direct participation, however, watching fracking was not entirely free or autonomous; instead it was a strenuous mediation of the already alienating patterns of life in postindustrial, post-Brexit Britain.

Erasure in disorienting times

Anthropologists have explained the outcome of the Brexit referendum as a protest vote by the former industrial working classes. The latter were economically and culturally dispossessed by the deindustrialization of the 1980s and 1990s, and they felt betrayed by industry and abandoned by the Labour Party, which declared that “we are all middle class now” (Evans 2012, 2017). “Class politics have been

reconfigured into a new form of cultural nationalism” (Evans 2017, 215), and this has broken long-standing but fragile alliances of marginalized social and ethnic groups. Disorientation settled in as the general postindustrial condition in the British society (Evans 2017). It has been further exacerbated by such issues as fracking, which has put into question the traditional alliance of the Conservative Party with well-off rural conservatives. I see this generalized state of disorientation as a form of social, economic, and political erasure in which not just the working class but all sorts of other groups in British society are also coming to feel that they do not matter.

Northwest England has a long industrial history dating back to the wool trade in the Middle Ages and the cotton mills of the Industrial Revolution. The Fylde still hosts the country’s largest nuclear fuel manufacturing plant as well as aerospace facilities. Like the rest of the North, however, Lancashire experienced a rapid industrial decline in the 1980s. The city of Preston is struggling with common deindustrialization issues, including poverty and housing shortages. The city of Blackpool was once a proud holiday resort for the North’s industrial workers, but its standing has declined, and although it is not abandoning its identity as a tourist destination, it is trying to rebrand itself as, for example, a casino city. But the rural parts of the Fylde borough, such as Little Plumpton, where the PNR site is located, differ significantly from these postindustrial images. The borough has a higher proportion of older people than the Lancashire average. It is also predominantly white, affluent, and traditionally Conservative-voting. Despite their differences, Preston, Blackpool, and Fylde voted for Brexit in the 2016 referendum, as did most people in the Northwest.

In this context, anti-fracking activism—or at least the particular form that it took in Lancashire—would seem highly unlikely. Protests against fracking in Lancashire, like its counterparts in other countries (Grossman 2019; Ransan-Cooper, Ercan, and Duus 2018), uniquely allied diverse groups of people: the rural middle class with the urban working class and activists of various persuasions. They responded to the specific forms of social and political erasure that were historical for some and quite new to others. They saw how this erasure works in the case of fracking in Lancashire, and this experience helped mobilize middle-class rural dwellers, who have quickly sensed that they are being erased as mattering subjects. This was especially visible during the planning process, in which many local residents scoffed at being called “receptors” of the fracking project’s impact (thus likening them to other potentially affected elements of natural life, such as groundwater and crops). They also mobilized narratives of local democracy and human rights against the central government’s unequivocal support for shale gas. “It is no longer about fracking. It’s about democracy,” they often told me,

expressing their frustration with how little their main concerns about health and the environment mattered during a planning inquiry that limited its considerations to traffic, noise, and natural beauty.

This truncated approach to planning was relatively new. Public inquiries in the UK used to be sites of sometimes prolonged debates about the relevance of environmental policies, and they could even influence policy making (Owens 2004). Under subsequent governments, however, the planning system has undergone significant privatization (Raco 2013), and the focus has shifted even more firmly to delivery and economic growth. A decade of austerity has also weakened local county councils, which can no longer manage complex forms of public engagement (Slade, Gunn, and Schoneboom 2019). These changes have been accompanied by consistent attempts by politicians to pay lip service to the agenda of localism and sustainability to appease both rural conservatives and progressive liberals. All these contradictory forces clashed amid the issue of fracking.

The government’s view was that “there is a national need to explore and develop our shale gas and oil resources in a safe and sustainable and timely way” (Rudd 2015). But Lancashire residents of all classes, armed with arguments about environmental sustainability and localism, soon realized that the planning system was not conducive to their idea of democratic participation (Short and Szolucha 2019). Formal public engagement was phantom participation. As one working-class resident told me, echoing the popular sentiment across the class spectrum,

I think it looked fair, but it’s such an alien and weird place and such an alien and strange setting to put people in, and we are so out of our depth as the public, whereas [Cuadrilla] have access to all the law and all the money. So it looks fair, but I don’t really think that it is in the end. [. . .] Nothing to do with law is fair anymore because everything costs money, so therefore you can win if you can afford to win.

Public engagement in planning appeared to work because many local residents spoke at the local county council and took part in the six-week-long inquiry. But it also left them with a sense that any feeling of empowerment built on their involvement in the planning process would be illusory and could be counterproductive because it legitimized the phantom process in which the winners were those who already had the financial and political advantage.

This perceived injustice can explain why the anti-fracking communities in Lancashire experienced a form of collective trauma (Aryee et al. 2020; Short and Szolucha 2019) when the application for fracking at PNR was progressing through the planning process. Planning reinforced the understanding of shale gas development as a

technological and legal issue that required specialist expertise. In the name of objective efficiency, this approach actually transformed social relations—it estranged communities from their civic power through a process that was ostensibly meant to advance it.

Katherine Smith (2012) shows how a similar sense of irrelevance and unfairness influences how working-class people participate in British democracy, which reflects their concrete anxieties and experiences more than any existing prejudices. Similarly, if watching fracking can be understood as a form of directly participating in public matters, and we want to know why local residents engaged in it, then we should look to their everyday experiences at PNR.

State, transparency, and class

In 2019 one frequent “watcher” told me about the role of the gate camp:

We know that we’ve slowed them down. Things like rig watch, that has made the difference. They can’t lie to us. We know exactly what they are doing. And I think that because of that, sometimes they can’t get away even if they wanted. [. . .] But lots of little people like me make a big difference to big companies like that. They worry about us.

The gate camp kept track of relevant environmental data, but—more significantly—its practices transformed experience. The point was not just to watch the fracking reality but to become an active subject in constructing and reconstructing that reality. One did this by slowing down the operations and making the industry “worry about us” rather than by collecting baseline data to hold polluters accountable in the future. This helped reestablish a sense of direct participation.

Moreover, the gate camp created predictability, a sense of local control, and it provided capacity and a reference point for reconciling variations on the uncertainties of a secretive industrial process. Being close to the actual industrial operations seemed crucial for generating reliable information about fracking. One elderly couple who lived near the fracking pad told me how they got “all [their] information from gate camp,” adding, “They are there. [. . .] It’s a reliable [source of information]. [. . .] And the government are so indecisive and so easily swayed one way or the other that you can’t even rely on government information.” The gate camp connected the anti-fracking community. A local resident described it thus:

You get fed, you do a shift at gate camp at night and you know that you’re gonna get a home-cooked meal brought to you. [. . .] So a lot of people, they might not necessarily be able to come here [. . .] but they wash clothes for other people. [. . .] Without the support of the community, nobody could be here.

Locally, these roles that people played in watching fracking corresponded with the perceived triple failure of the British state and formal ways of democratically engaging with shale gas development: (1) fracking had to be watched (to ensure that Cuadrilla did not “get away”) because the state apparatus had failed to remain separate from the corporate; (2) watchers were seen to produce reliable information as opposed to the mechanisms of transparency that failed to authentically portray the industry; and (3) watching created a sense of community that compensated for the state’s prejudiced response to the participation of marginalized groups and classes. I address each of these perceived failures below.

At the root of the popular distrust of the government and the industry at PNR was the problematic relationship between the public realm of the state’s ordering powers and the private sphere of corporate interests. The leaked letter that I mentioned in the introduction constituted only one of many signs that the industry and the government maintained a close relationship, one that spanned changes to the Infrastructure Act, which facilitated shale gas extraction; censorship of government reports on shale gas potential; and the dubious practice of the shale gas commissioner, who regularly deleted her correspondence with fracking companies (Scott and Boren 2020).

Throughout the history of the nation-state, the line between the state and the private realm has always been quite permeable and “drawn internally, within the network of institutional mechanisms through which a certain social and political order is maintained” (Mitchell 1991, 78). But the power of the two realms (public and private) and an abstract effect of their agency have depended on keeping them separate. Martha called the police “earthquake facilitators” because the local practice of state agencies obscured this boundary between the state and the corporate. Nowhere at the PNR site was this more visible than in the eight-meter-wide piece of asphalt at the site’s entrance.

A thick blue line ran across the site’s curved entrance, dividing the area into two parts: Cuadrilla’s private land and the public highway. Yet this division did not correspond to the “injunction areas” and “noninjunction areas” created by the High Court’s ban on anti-fracking disruptions. In the injunction areas, including Cuadrilla’s private land beyond the blue line, offenses would be punished under civic law rather than the criminal code. Thus, anyone who crossed the blue line and disturbed Cuadrilla’s activities risked a heavier-than-usual punishment, such as a heavy fine or imprisonment. But this injunction area also spanned about 2.8 kilometers of the public highway. As a result, harsh punishments were also meted out for disturbances that took place on this side, such as blocking the entrance by locking on to other protesters (Szolucha 2018a).

Because of these overlapping boundaries, questions of enforcement, rights, and practices were blurry at best.

Like the government's explicit support for fracking, the blue line and the injunction areas muddled the line between state intervention and corporate interests, subordinating the state's ordering function to corporate power. For example, before removing people from a passing tanker's way, the police often stood on the verge of the blue line—their high-visibility uniforms blending in with those of the private security guards. Instances like this, residents told me, were a reason why they had to watch fracking. This was also the motive behind the anti-fracking community's disengagement from involvement with the police. They no longer tried to have conversations with the police "because they've let us down and we no longer trust them," as one local councillor told me. Another local resident in her 60s added, "I've got nothing for them but contempt. They're not neutral at all. They're not here for our safety. They're here to uphold the status quo." Throughout the UK, police officers told me that fracking operations were extremely difficult because there were so many different stakeholders and interests involved, but they placed the facilitation of peaceful protest at the top of their list. Nevertheless, activists had the impression that the state and Cuadrilla cooperated in the policing of the entrance to the site and the area surrounding it to prioritize property rights, and this was one of the main causes of their antagonism toward the police. In the anti-fracking imaginaries, police were there "for one thing, and that's to facilitate Cuadrilla."

There is nothing new in the fact that the extractive industry and the state have mutually reinforcing interests. One can act in the place of the other to secure lucrative contracts, further national influence, or lead social development (Mitchell 1991; Rogers 2011; Willow 2018). A new dynamic, however, also emerged at PNR, and it reversed the democratic hierarchy between the state and the corporation, which further strengthened people's resolve to watch fracking, because it appeared that the state was not going to do so independently and objectively. One morning in July 2017, at around 4 a.m., Cuadrilla delivered the drilling rig to the pad. In doing so the company breached the planning conditions but defended its decision, saying it aimed to minimize disruption to motorists because a daytime delivery would have been blocked by protesters, which would inconvenience other road users. The operation was undertaken with the full cooperation of the police. The company admitted that its decision to breach the planning condition was taken after consulting the police, but neither Cuadrilla nor the Lancashire Constabulary would say whether it was the police that advised the company to deliver the rig outside permitted hours.

This dynamic is similar to what Michael Watts (2003) describes as a double movement—while extraction rendered the state more visible and powerful, the specific circumstances of resource-led development fragmented and discredited the state. Similarly, at PNR, the police were un-

dermining their own legitimacy and that of the government, yet Cuadrilla could still capitalize on the state's actions and its narrative of public safety. In fact, when the company breached a planning condition or caused earthquakes—thereby failing to live up to the appearance of a well-regulated and monitored industry—it seemingly used this failure to "move the goalposts" and secure more concessions from the authorities, undermining their power in the process. These dynamics further discredited the state, which the public already saw as unreliable and corporatized. Or as one campaigner told me,

You see your lawmakers abusing the law, moving the goalposts and adjusting the Infrastructure Bill and doing all they can to facilitate this industry and stop us from standing up for our community. [...] At what point does your respect for your lawmakers go? You know what, I think they're criminal.

As in the examples above, the logics of the corporatized state thrive amid social controversy because they create conditions for the reassertion and expansion of corporatizing mechanisms, reducing the state's democratic potentials. Similarly, the managerial principles of transparency and public involvement introduced in UK planning subordinated the terms of community engagement to corporate jurisdiction. Yet the industry could not resolve people's concerns based in democracy and justice (Szolucha 2018b), nor was it necessarily invested in projecting an entirely authentic image of its operations and itself, which amplified community understandings of risk and fueled controversy. This process was at the heart of watching fracking at PNR, and it was the main reason why transparency and public engagement—the very principles that were aimed at defusing resistance—seemed also to work in the opposite direction, creating more distrust (Barry 2013).

To share just one example, Cuadrilla's public engagement largely took place through the Community Liaison Group (CLG). The group met monthly and was run by Cuadrilla. It consisted of community representatives, local councillors, company and police representatives, and regulatory agencies. The original aim of the meetings was to provide a space for dialogue in which local concerns could be raised and Cuadrilla's responses and information were fed back to the community. Similar industry involvement models are practiced around the world as part of the corporate social responsibility package through which industry recognizes human rights and global norms of transparency and public engagement.

Formal corporate social responsibility regimes largely took root in the 1990s after two major corporate disasters involving Shell's operations in Nigeria (the killing of Ken Saro-Wiwa) and BP's involvement in Colombia (selective killings and cooperation with paramilitaries), among many

others (Watts 2005). But corporate practices that are meant to bolster transparency and public engagement have been criticized for creating illusions of transparency and local consensus, and for concealing power relations by engaging local residents in a process that legitimizes extractive development as a collective endeavor (Rajak 2011). In Lancashire the residents' representatives came to view the CLG as "Cuadrilla's box-ticking exercise," as they often put it. But because community representatives watched fracking on their own terms, they generated effects that undermined powerful interests.

The minutes from the CLG meetings in Lancashire were recorded by a PR consultancy employed by Cuadrilla. They were written as a smooth narrative that left the impression of a fact-based debate in which, even when disagreements arose, people's concerns were acknowledged and acted on. For example, the minutes from September 2017 read,

Superintendent Robertshaw advised of the current cost of policing the operation at Preston New Road. . . . He noted that Lancashire Police will be submitting a bid to the Home Office to seek financial assistance to support current policing efforts. Councillor Hayhurst stated . . . that local people never see a policeman and that this was due to Cuadrilla. In response, Sam Schofield [Cuadrilla's representative] noted that the police are only present at Preston New Road as a result of the protestor activity, whilst Councillor Cox advised that people have a democratic right to protest. . . . Sam Schofield . . . referred to the number of arrests made by the police to demonstrate the level of activism at the site, as well as the disruption caused to local business and the community.

Yet the image of respectful engagement was at odds with the experiences of some community representatives who challenged Cuadrilla's commitment to transparency. One of them turned this value against the company and started to publish their own minutes. In contrast to the official record, their narrative reflects the tone of the meetings, which were sometimes a scene of heated debates. The same fragment of that September meeting in their minutes is described thus:

It's the norm to see 75 officers on or around PNR on Mondays and Fridays with 50 on Tues, Wednesday and Thursday. It was confirmed that Lancashire Police . . . is footing the bill. A bid is being submitted to the Home Office, but there are no guarantees that Lancashire will recoup all or even any of the money. At this point a Cuadrilla rep was really aggressive blaming protestors. We pointed out that his attitude was inappropriate. . . . Much argument ensued where Cuadrilla attempted to suggest that protestor activity was aggressive and excessive. We politely reminded him that whichever fracking company . . . would attract levels of protest. . . .

I also pointed out that the protectors are currently doing the regulators job for them and without protectors Cuadrilla would be glossing over issues.

These minutes demonstrate a broader tendency at PNR: local representatives used every form of engagement available to them to watch fracking on their own terms. Through the CLG, they undermined the company's transparency by publicizing the internal dynamics and corporate practices that conflicted with the company's official image as a "good neighbor."

Watching was also a response to the handling of protest at PNR. The policing of protest undercut public perception of the state because it highlighted state agencies' prejudiced approach to certain groups of protesters. In conversations, some police officers admitted that their own middle-class position influenced their understanding of the diverse anti-fracking community at PNR. They had an image of a "proper" middle-class protester who stands on the side of the road waving a placard, and this antagonized the campaigners because it led the police to discriminate among them and gave the impression that the state was targeting more vulnerable members of society. For example, working-class mothers were visited by the police and warned that it was inappropriate to protest with their children. Residents with disabilities were called for additional evaluations or had their benefits taken away, which they linked to their participation in the protest. The police had passed video footage of them as they were protesting to the Department for Work and Pensions (DWP), which is responsible for administering disability and other forms of benefits. This is how one protester described their interview with an assessment agency:

They gave the DWP years of footage, so I've not seen it all. [. . .] I don't imagine [. . .] they've given the DWP times like when I was asleep on the pavement anyway or [. . .] really struggling. I don't think that they've included that. They just had bits where they could say how come you're doing this. [. . .] They got me cross the road and then turn around and took a few steps backwards. "How can you do that if you get dizzy?" I'm leaning on a bike, and they are saying that I was riding the bike. I was leaning on the bike [. . .] and then I got letters saying, Oh, you've got to pay back the money for the last year. [. . .] I'm not the only one, you know. Everyone who'd gone up there, they've targeted. They don't want us to protest.

Experiences like this exemplify some of the many forms taken by the repression of protest movements (Mac Sheoin 2010).

The opportunities for participation and the distribution of the impacts of activism were, therefore, not equal across the social spectrum. Unlike the ideal of

participatory democracy, the corporate and state terms of public engagement required a particular kind of resident, erasing others as too unruly or unfit for participation. In the name of social justice, state agencies used profiling and stereotyping while professing everyone's right to protest. In this context, watching fracking—as a spectrum of coordinated grassroots activities—could offer a sense of inclusion against the social stratification perpetuated by the state and corporate agents.

Watching as distancing from the state

In November 2019, I went to visit the gate camp at PNR for the last time. A sense of excitement was in the air because the government had announced a moratorium on fracking, but hardly anybody believed this to be the end. Even though the gate camp and the fracking equipment gradually disappeared from PNR, the watchers did not, and in 2020 they still visited and took pictures from the gates. “All quiet but still watching,” one of them wrote on social media. If watching compensated the anti-frackers for the sociopolitical erasure they experienced so palpably through engaging with fracking, it was intriguing that watching continued even after the prospect of fracking had faded. What was it about this practice that kept people involved?

Taking what I knew would be my last photos of the gate camp, I tried to remember how it all began. Quite unusually, rig watching started as a children's story (relayed through social media) about “Rusty the Rig,” whose dreams of becoming an amusement ride at a theme park were shattered when it realized that it was going to be used for fracking. “I am not a happy rig,” Rusty said. “When the drillers try and stuff pipes down my throat, it hurts and I don't like the crying sound that the earth makes as I break the ground.” These stories evoked compassion for Rusty, who appeared sad and unwell most of the time. But in the stories, Rusty was victimized and passive because it was the drillers who were forcing the rig to “eat the pipes,” and at the same time, it appeared agentive and subversive because the “hard hats” were constantly angry with Rusty for failing to work properly, failing to swallow the pipes. Rusty could also sound somewhat conflicted: “Connor the Shady Crane is pulling broken well casings out of the new well. I just don't think I'm cut out to be a fracking rig. I'm not that mean.” Rusty was trapped, forced to work, yet not lacking agentive power. One could feel sympathy for Rusty yet distance oneself from its predicament, defying its victimhood and entanglement in the fracking process.

According to Francesca Polletta (2009), activists often face a dilemma in telling stories about their experiences of oppression and struggle. They worry about how to balance their stories of victimhood with a sense of agency and overcoming so that they can give others hope and move them to action. “Rusty the Rig” tells a story of such a dilemma.

It is easy to draw parallels between its feelings of dismay and opposition to what the drillers were doing and those of the anti-fracking community. How it was entangled in the fracking process against its will and its (limited) capacity to disrupt the development resounded with the anti-frackers' experiences of the planning process and protest at PNR. By projecting their feelings onto Rusty, however, they could also disidentify with a sense of powerlessness and distance themselves from the actions of the company and the state. Thanks to the story, they were not being Rusty; they were watching it. Unlike the rig, the watchers were active subjects, knowledgeable and agentive.

Watching was a form of direct participation that was dynamic, collaborative, and informed. It felt legitimate because the stories of watching fracking that espoused the values of civic and individual self-assertion resonated with the rest of society after decades of neoliberal policies in postindustrial Britain. Watching allowed anti-fracking activists to regain a sense of community and agency because they felt they were directly confronting the state and Cuadrilla, even though their alienation remained palpable and their meditations strenuous. Nevertheless, watching helped them distance themselves from Rusty's predicament of alienation. This is why watching fracking was such an ambiguous process—neither citizen science nor just a protest. Watching did not eliminate uncertainty and ambivalence of an industrial operation; by itself, it also could not stop fracking. Instead, it helped people feel that they were directly participating in public matters on their own terms and in a way that distanced them from the corporatized state that erased them as mattering subjects.

In these disorienting times, anthropology can deepen our understanding of how disappointment with the current formations of the state and its relation with the corporate can interact with subjectivity. If anthropological analyses of public engagement with an industrial process urge attention to unexpected entanglements with hegemonic actors and processes, watching fracking also underscores the opposite: people use bottom-up, coordinated, and strenuous practices to try to bypass and overcome the state. In doing so, they thus seek to counteract the experience of sociopolitical erasure.

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1. Throughout this article, I use pseudonyms for all interlocutors.

References

- Aryee, Feizel, Anna Szolucha, Paul B. Stretesky, Damien Short, Michael A. Long, Liesel A. Ritchie, and Duane A. Gill. 2020. "Shale Gas Development and Community Distress: Evidence from England." *International Journal of Environmental Research and Public Health* 17 (14). <https://doi.org/10.3390/ijerph17145069>.
- Barry, Andrew. 2013. *Material Politics: Disputes along the Pipeline*. Chichester, UK: Wiley Blackwell.
- BBC News. 2013. "Fracking OK for 'Desolate' North East, Says Tory Peer." July 30, 2013. <https://www.bbc.com/news/uk-politics-23505723>.
- Bosworth, Kai. 2019. "The People Know Best: Situating the Counterexpertise of Populist Pipeline Opposition Movements." *Annals of the American Association of Geographers* 109 (2): 581–92. <https://doi.org/10.1080/24694452.2018.1494538>.
- Choi-Fitzpatrick, Austin. 2020. *The Good Drone: How Social Movements Democratize Surveillance*. Cambridge, MA: MIT Press.
- Evans, Gillian. 2012. "'The Aboriginal People of England': The Culture of Class Politics in Contemporary Britain." *Focaal*, no. 62 (March): 17–29. <https://doi.org/10.3167/fcl.2012.620102>.
- . 2017. "Brexit Britain: Why We Are All Postindustrial Now." *American Ethnologist* 44, no. 2 (May): 215–19. <https://doi.org/10.1111/amet.12470>.
- Gitlin, Todd. 1980. *The Whole World Is Watching: Mass Media in the Making and Unmaking of the New Left*. Berkeley: University of California Press.
- Grossman, Zoltán. 2019. "Native/Non-native Alliances Challenging Fossil Fuel Industry Shipping at Pacific Northwest Ports." In *Environmental Activism on the Ground: Small Green and Indigenous Organizing*, edited by Jonathan Clapperton and Liza Piper, 47–72. Calgary: University of Calgary Press.
- Guardian. 2015. "George Osborne Demands Rapid Progress on Fracking—Full Letter." January 26, 2015. <http://www.theguardian.com/environment/interactive/2015/jan/26/george-osborne-fracking-letter>.
- Hébert, Karen, and Samara Brock. 2017. "Counting and Counter-mapping: Contests over the Making of a Mining District in Bristol Bay, Alaska." *Science as Culture* 26 (1): 56–87. <https://doi.org/10.1080/09505431.2016.1223112>.
- Jalbert, Kirk, and Abby J. Kinchy. 2016. "Sense and Influence: Environmental Monitoring Tools and the Power of Citizen Science." *Journal of Environmental Policy and Planning* 18 (3): 379–97. <https://doi.org/10.1080/1523908X.2015.1100985>.
- Kinchy, Abby. 2017. "Citizen Science and Democracy: Participatory Water Monitoring in the Marcellus Shale Fracking Boom." *Science as Culture* 26 (1): 88–110. <https://doi.org/10.1080/09505431.2016.1223113>.
- Mac Sheoin, Tomás. 2010. "Policing and Repression of Anti-globalization Protests and Movements: A Bibliography of English-Language Material." *Interface* 2, no. 2 (November): 288–367.
- Mitchell, Timothy. 1991. "The Limits of the State: Beyond Statist Approaches and Their Critics." *American Political Science Review* 85, no. 1 (March): 77–96. <https://doi.org/10.2307/1962879>.
- Ottinger, Gwen. 2017. "Making Sense of Citizen Science: Stories as a Hermeneutic Resource." *Energy Research and Social Science* 31 (September): 41–49. <https://doi.org/10.1016/j.erss.2017.06.014>.
- Owens, Susan. 2004. "Siting, Sustainable Development and Social Priorities." *Journal of Risk Research* 7 (2): 101–14. <https://doi.org/10.1080/1366987042000158686>.
- Poller, Maxime. 2019. "Conflictual Collaboration: Citizen Science and the Governance of Radioactive Contamination after the Fukushima Nuclear Disaster." *American Ethnologist* 46, no. 2 (May): 214–26. <https://doi.org/10.1111/amet.12763>.
- Polletta, Francesca. 2009. "Storytelling in Social Movements." In *Culture, Social Movements, and Protest*, edited by Hank Johnston, 33–53. Farnham, UK: Routledge.
- Raco, Mike. 2013. "The New Contractualism, the Privatization of the Welfare State, and the Barriers to Open Source Planning." *Planning Practice and Research* 28 (1): 45–64. <https://doi.org/10.1080/02697459.2012.694306>.
- Rajak, Dinah. 2011. *In Good Company: An Anatomy of Corporate Social Responsibility*. Stanford, CA: Stanford University Press.
- Ransan-Cooper, Hedda, Selen A. Ercan, and Sonya Duus. 2018. "When Anger Meets Joy: How Emotions Mobilise and Sustain the Anti-Coal Seam Gas Movement in Regional Australia." *Social Movement Studies* 17 (6): 635–57. <https://doi.org/10.1080/14742837.2018.1515624>.
- Rogers, Douglas. 2011. "Oil into Culture: Energopolitics in the Russian Urals." *Anthropology News* 52, no. 5 (May): 7. <https://doi.org/10.1111/j.1556-3502.2011.52507.x>.
- Rudd, Amber. 2015. "Shale Gas and Oil Policy." UK Parliament, statement UIN HCWS202, September 16, 2015. <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2015-09-16/HCWS202/>.
- Schnepf, J. D. 2019. Review of "Drone Warriors: The Art of Surveillance and Resistance at Standing Rock," exhibit at the Haffenreffer Museum of Anthropology, Brown University, Providence, RI, May 11, 2018–April 30, 2019. *Museum Anthropology* 42, no. 2 (Fall): 150–52. <https://doi.org/10.1111/muan.12206>.
- Scott, Russel, and Zach Boren. 2020. "Government Forced to Release Shale Gas Commissioner's Deleted Emails." *Unearthed*, June 15, 2020. <https://unearthed.greenpeace.org/2020/06/15/shale-gas-commissioner-deleted-emails-released/>.
- Short, Damien, and Anna Szolucha. 2019. "Fracking Lancashire: The Planning Process, Social Harm and Collective Trauma." *Geoforum* 98 (January): 264–76. <https://doi.org/10.1016/j.geoforum.2017.03.001>.
- Slade, Daniel, Susannah Gunn, and Abigail Schoneboom. 2019. *Serving the Public Interest? The Reorganisation of UK Planning Services in an Era of Reluctant Outsourcing*. N.p.: Royal Town Planning Institute; Working in the Public Interest; Economic and Social Research Council. <https://www.rtpi.org.uk/media/2005/servingthepublicinterest2019.pdf>.
- Smith, Katherine. 2012. "Anxieties of Englishness and Participation in Democracy." *Focaal*, no. 62 (March): 30–41. <https://doi.org/10.3167/fcl.2012.620103>.
- Szolucha, Anna. 2016. *The Human Dimension of Shale Gas Developments in Lancashire*, UK: Towards a Social Impact Assessment. Self-published. <https://books.google.pl/books?id=vPpIDwAAQBAJ>.
- . 2018a. "Anticipating Fracking: Shale Gas Developments and the Politics of Time in Lancashire, UK." *Extractive Industries and Society* 5, no. 3 (July): 348–55.
- . 2018b. "Community Understanding of Risk from Fracking in the UK and Poland: How Democracy- and Justice-Based Concerns Amplify Risk Perceptions." In *Governing Shale Gas: Development, Citizen Participation and Decision Making in the US, Canada, Australia and Europe*, edited by John Whitton, Matthew Cotton, Ioan M. Charnley-Parry, and Kathy Brasier, 242–55. Abingdon, UK: Routledge.
- . 2021a. "Futures of Fracking and the Everyday: Hydrocarbon Infrastructures, Unruly Materialities and Conspiracies." *Ethnos*. Published ahead of print, March 26, 2021. <https://doi.org/10.1080/00141844.2021.1906293>.

- . 2021b. *Shale Gas Developments in England: Social Impacts and Comparisons*. Self-published. <https://books.google.pl/books?id=ZJdCEAAAQBAJ>.
- Watts, Michael. 2003. "Economies of Violence: More Oil, More Blood." *Economic and Political Weekly* 38, no. 48 (November 29–December 5): 5089–99.
- Watts, Michael J. 2005. "Righteous Oil? Human Rights, the Oil Complex, and Corporate Social Responsibility." *Annual Review of Environment and Resources* 30:373–407. <https://doi.org/10.1146/annurev.energy.30.050504.144456>.
- Willow, Anna J. 2018. *Understanding Extractivism: Culture and Power in Natural Resource Disputes*. Abingdon, UK: Routledge.
- Wylie, Sara Ann. 2018. *Fractivism: Corporate Bodies and Chemical Bonds*. Durham, NC: Duke University Press.
- Wylie, Sara Ann, Nick Shapiro, and Max Liboiron. 2017. "Making and Doing Politics through Grassroots Scientific Research on the Energy and Petrochemical Industries." *Engaging Science, Technology, and Society* 3 (September): 393–425. <https://doi.org/10.17351/ests2017.134>.
- Zilliox, Skylar, and Jessica M. Smith. 2018. "Colorado's Fracking Debates: Citizen Science, Conflict and Collaboration." *Science as Culture* 27 (2): 221–41. <https://doi.org/10.1080/09505431.2018.1425384>.

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