Commons in the Common Sense: Resisting Enclosures with Anti-Fracking Activists in Lancashire, UK.

Abstract

Placing today's antifracking protests amongst previous struggles in Lancashire, this paper explores how radical environmental movements resist a capitalist drive for cheap Nature that endangers human and extra-human reproduction. Hydraulic fracturing encroaches on parts of nature that in the common sense of people have not yet completely lost their ontology of a commons. Clean water, air, silence and accessibility are not yet ontologically detached from the conditions for healthy lives and a vibrant community. Like the peasants who revolted in early-modern England because enclosures deprived them of access to firewood and land for grazing cattle, today local communities revolt to the new enclosures that deprive them and future generations from a clean environment, necessary for a healthy life. One of the more subtle and underexposed strategies of radical environmental movements is to emphasize and (re-)create an ontological unity between nature and humanity-in-nature as a reaction to the duality of modernity. This paper's approach, which combines the political economic history of enclosures with anthropologically inspired research on changing conceptions of nature, shows how radical environmental movements object to material conditions that result from ontological dualisms. This helps to better understand the strategies and aspirations of radical "environmental" movements.

Keywords

Fracking, commons, radical environmental movements, dualism

Introduction

Close to the Cuadrilla fracking site of Blackpool, Lancashire, a three by five meter placard displays photos of the Battle of Orgreave. Underneath those pictures are similar photos taken during anti-fracking protests in 2017 at Preston New Road (PNR). The inscription says: "Lancashire Constabulary's (Very own) Orgreave. Remember 1984—Nothing's Changed! 2017 DAILY RE-ENACTMENTS AT P.N.R. SAME GOVERNMENT! SAME ARROGANCE! SAME CONTEMPT & ABUSE OF POWER!" To an outsider, it might seem peculiar that the Battle of Orgreave, a clash between police and miners' pickets over the closure of the British collieries, is used in the context of an environmental protest. For the "fracktivists," however, there is nothing strange about it. They provide a parallelism between police violence and state alignment with big capital at the Battle of Orgreave to the PNR anti-fracking protests. Both are part of one struggle over the means of reproduction. To understand the solidarity of anti-fracking activists (fracktivists) with coal miners, this article places today's fracking protests in a long history of social unrest in Lancashire, a history that starts even before the dawn of fossil fuels, in the early days of capitalism, with the enclosures of the commons[1], beginning in Lancashire in the sixteenth century. By drawing a line from the enclosures to the UK miner's strike to fracking—a so-called "new enclosure"—this paper flushes out the centrality of reproduction in all social struggles. In particular, I pay attention to how struggles over the means of reproduction are linked to changing

[1] The dividing and fencing of waste lands and commonly held lands.

ideas of nature. The "nature" fracktivists protect is not an abstract Nature, *disembedded*[2] from Human life. Although abstract Nature, inanimate and distanced from Humanity, is today's common sense conception—a conception that grew together with capitalism and mechanistic science (Merchant, 1980)—the duality of Nature and Humanity has never been absolute. There are many parts of Nature that are today still recognized as constitutively entangled with human reproduction. These parts of nature—clean air, clean water, silence and accessibility—are commons in a broad sense. A threat to these commons is a threat to subsistence, generating a defensive reaction from those local people who see their survival endangered.

Land defenders in the UK started their struggle around fracking as soon as a ban on the practice was lifted in 2013. Hydraulic fracturing or fracking involves pumping water, sand and a cocktail of chemicals into a shale rock formation to fracture open little underground pockets of gas and oil. This method of unconventional gas exploration has led in the United States to a temporary boom in the gas market, but also to the popping up of industry in residential neighborhoods and massive air and water pollution. In the UK, because of the faulted geography, earthquakes form an additional hazard. The first occupation of public space to protest Cuadrilla's fracking plans at PNR dates back to 2014. This was organized by a collective of local residents and national advocacy groups like Reclaim the Power and Frack Off ("Cuadrilla fracking protest," 2014). When in 2017 construction works began, the protests transformed into a 24/7 presence. Until the end of 2019, when the government implemented a temporary moratorium on some fracking operations and the decommissioning of PNR by Cuadrilla was almost complete, protesters observed the fracking site of PNR from the "gate camp", a shack on the other side of the road from the construction site, from

[2] The term *disembedding* comes from Polanyi (1944/2001), who uses it in the context of the economy/political duality, which has its roots in the same processes of early capitalism as the Nature/Humanity duality.

where they meticulously observed all operations. Some of the land defenders were locals, others stayed at one of the two nearby permanent protest camps.

The empirical data of this research were gathered at these camps and at protest marches and community gatherings of the fracking resistance during early 2019. The fieldwork in England consisted of semi-structured interviews and participant observation. Most of the time, I spent at New Hope Resistance Camp, where many of the younger and out of the area activists have squatted a place to live, and at the Gate Camp, the watch site, permanently occupied in shifts by the full time activists and local residents and where nearby weekly protests take place like the Nanna's (a group of fracktivist mothers) slow walk and the Green Monday (every Monday a speaker gives a speech in front of the gates). Although calling my method participatory research might be a stretch, I share with the method a criticism to the presumption of objectivity of positivist methodologies—especially when researching extractivist conflicts; while doing research I was a participant in protests and gate watches and committed myself to their goals. Additionally, I draw on secondary literature, mainly news articles and the protestors' own communication channels.

In the first part of the paper, I explain how the ontology of nature changed in the past, especially by a phase of primitive accumulation by enclosure. Thereafter, I extend the story of the enclosures to fracking today and explain how fracking is a threat to commons not yet completely *disembedded* from society. Once I have made this comparison, I show the similarities between the peasant uprisings during the historical enclosures and the resistance against the enclosures caused by fracking to prove that protesters emphasize an ontology of entanglement as a response to yet another phase of enclosures. Parallel to the story of the enclosures, I weave in the comparison with the protests around the collieries of East Lancashire. Although the ontology of nature was not an issue in this struggle over a fully commodified resource, the fracking protesters find parallels with

miners' struggle because they feel similarly abandoned by the state in a struggle over the means of social reproduction.

A Transformation of Nature: Enclosures in Lancashire

Ontology is connected to practice. A people's conception of nature influences their treatment of it and vice versa, a mode of production influences the conception of nature. Nature in today's modernist sense is inanimate (Merchant, 1980), empty, wild (Tsing, 2005), and without history (Arnold, 1996). This abstraction of nature in which Humanity is placed outside and above Nature has real and violent consequences because it sanctions the manipulation of nature and the appropriation of resources without accounting for the entanglements of Nature with the web of life (Moore, 2016). This particular capitalist conception of Nature is historically produced and far from universal. Many Indigenous activists for example explicitly evoke a different ontology in their struggles. The famous concept "Mother Earth" is a way to attribute personhood to nature and animate the world. Yet, it is not only Indigenous people that have never been completely modern. An ontological struggle is often part of social protests. This is the case for the fracktivists in Lancashire, who animate their surroundings by ceremonies, spiritual protests and the equation of the future of the countryside with the future of their children. This resistance to both the modernist ontology and the modernist technology is foreshadowed by five centuries of capitalist history in which local people resisted capitalism's tendency to neglect the entanglements of subsistence and social reproduction with the environment. To make sense of the present, we need to take a look at the conception of nature and land and how it has changed over the *longue durée*.

In the midst of the sixteenth century, Lancashire was poor, scarcely populated and had a large portion of "waste" land (Rogers, 1993, 140; Walton, 1987, 7). In contrary to Garrett Hardin's (1968) assertions in *The Tragedy of the Commons*, commons and waste lands were never a "waste" in the meaning of something useless. Commons fulfilled essential purposes for the subsistence of peasants. The commons provided an "aspect of the environment that was limited, that was necessary for the community's survival, that was necessary for different groups in different ways, but which, in a strictly economic sense, was *not perceived as scarce*" (Illich, 1983, para. 7, original emphasis). It did not belong to someone's possessions, yet people had rights of usage. "The right to exploit common land" Marx wrote, "gave pasture to their cattle, and furnished them with timber, fire-wood, turf, etc." (1867/1976, 877). Yet the commons extended beyond the provision of material means. Linked to the commons, a complex social network of support existed, for example by providing small loans to the poorest farmers. Payments were still made by boon work and the pursuit of monetary gain did probably not reach far beyond the community (Rogers, 1993, 144). An infinite diversity of practices, that differed in every village and over time, regulated the use of the commons and provided support to the poorest in times of need. Rights over fallen and hanging fruits would differ, different parts of a fallen tree would belong to different families, the amounts one could gather would depend on the jobs performed and to convolute our understanding further, rights might alter after a crop failure, when the better-off were supposed to take care of their poorer neighbors. The whole system of relations was so complex it was impossible to write down, not only because it was so diverse, but also because it required "open-endedness, receptiveness and adaptability" (The Ecologist, 1994, 111), qualities that got lost with the creation of the phantom of the rational *homo oeconomicus*. Unwritten customary law created community respect for the

commons that animated and humanized them (Illich, 1983, para. 6). The complex web of relations *embedded* humanity in nature and vice-versa; the two could not be ontologically separated.

By the end of the eighteenth century, Lancashire's wastes had been almost decimated. The county—which included Manchester and Liverpool at that time (see figure 1)—had developed into a thriving wool center and a hotbed of industrialization. These changes did not occur in a vacuum. They were accompanied by a larger socio-natural regime that affected not only England, but the entire world. In England however, the decline of the commons started with increasing prices of wool due to a rapid expansion of the wool manufacture in Flanders, which gave rise to a wave of evictions on the English countryside starting during the last decades of the fifteenth century. For a new nobility, born in the feudal crisis, money was the new source of power and transforming arable land into sheep-walks the way to get it (Marx, 1867/1976, 879). In Lancashire, enclosures began during the second half of the sixteenth century. At this time, the encroachment on the moorland and scrub was mainly piecemeal, but sporadically this was augmented with large-scale partitions by Crown commissioners. The population rose 76% between 1563 and 1664 (Walton, 1987, 23-25). This happened in tandem with the fragmentation of existing holdings. Because of the mere size of the wastes, it seems that the area has known relatively fewer enclosure-related unrests than other places in England. Nevertheless, the unilateral enclosures and rent exploitation threatened the well-being and even the very existence of smallholders, who were dependent on use rights, leading to at least some conflict stemming from seigneurial assault (Manning, 1988, 85-87, Rogers, 1993, 141). From those early enclosures, a class of petty landholders emerged, a condition that made peasants even more dependent on asserting common rights to land (Timmins, 1998, 75). Others became dependent for their survival on wages from industrial or proto-industrial work for their survival (Timmins, 1998, 38). As Immanuel Wallerstein (1979, 147-148) notes, this proto-industrial system was beneficial to the capitalist class, because it made labor cheap as the capitalists

did not need to take responsibility for the social reproduction of labor. The proto-industrial peasants produced part of their goods necessary for subsistence on their small plots of land, independent of the work they performed for the industrial market.

During the first half of the eighteenth century, common waste land quasi-disappeared. For the small peasants, this was harmful in two ways. It destroyed the economic subsistence system, and it drastically altered the social arrangements within villages. Small loans, cow hire and grazing rights which helped the poorest to meet their subsistence needs, had almost disappeared together with the common lands. Thus, many small farmers had difficulties to survive and eventually had to sell their plots, which created opportunities for more powerful actors to acquire more land. A local elite emerged, and earlier socio-environmental relations eroded further (Rogers, 1993). The dualism of Nature and Humanity could only emerge through the destruction of previous methods of relating *in* nature. Primitive accumulation[6] by enclosures separated the proletariat from their means of production, which created a separation from Nature. Thus, enclosures created a rural proletariat—which later became important for the emergence of an industrialized coal and textile corridor in the southern and eastern parts of the county—but it also started a new ecological order in which society changed its attitudes towards the environment. This was part of an ontological transformation in which nature transformed from a commons in which people's subsistence was *embedded* in a "resource" in the process of capital accumulation, making it external to Humans.

[6] Primitive accumulation—be it a historical moment or continuous process (cf. Luxemburg [1913/1963])—is the "process of divorcing the producer from the means of production" (Marx, 1867/1976, 875). Class formation is one result of the appropriation of women, nature and colonies. Yet it entails more than an economic process. Primitive accumulation is equally about the restructuring of the human and extra-human relations of reproduction (Moore, 2015, 98). The conception of Nature as external to Humanity is one of those restructured relations.

The enclosures of the eighteenth century took a qualitatively and quantitatively different form than those of the sixteenth and seventeenth century. While up to that moment the state had been—at times and in vain—drawing up legislation against enclosures, this attitude started to change with the rise of great landlords in parliament. Legislation became the means for the appropriation of land formerly held in common (Marx, 1867/1976, 885). In Lancashire however, parliamentary enclosures remained limited (Timmins, 1998, 135). Nevertheless, the landless class, the "free" laborers created elsewhere in England, formed the labor supply for industrialization in Manchester and Liverpool, especially during the last decades of the eighteenth century, when cotton from the new world started to flow in. The less centralized and non-mechanized forms of domestic outwork never completely vanished. Yet, during the growth of the cotton textile industry, centralization of industry in the urban centers became commonplace (Timmins, 1998). The state not only delivered extra-human Nature "to the accumulation process by creating property regimes, physical infrastructure, and scientific knowledge" (Parenti, 2014, 1), the enclosures also increased the grasp of the state itself. Commons thrived on regulations and practices decided upon at the local level, but enclosures aimed to produce a more uniform and legible type of ownership with simplified relations (Scott, 1998). The disappearance of common land undermined the community by decreasing local autonomy. The community was redefined and made less vibrant because "people become economic individuals that depend for their survival on commodities that are produced *for them*" (Illich, 1983, para. 14, original emphasis).

As capitalism ran into new accumulation crises and the rate of profit showed its tendency to fall, the frontier of enclosures moved overseas in a search for new sources of cheap Nature and cheap labor. Cotton, grown on stolen land by stolen labor, fed the British golden era of industrialization (Blackburn, 1979). Manchester and Liverpool connected the transatlantic trade with the newly formed proletariat. Although other industries appeared, the textile industry would

remain the biggest employer until World War I. After the first World War, and in accelerated pace after the Second, the cotton industry started to succumb to overseas competition, where wages and energy were cheaper. Other industries also got into difficulties. The collieries of Lancashire saw a first wave of closures during the 1960s due to geological difficulties. The coal industry would disintegrate as less expensive forms of energy—oil, gas and coal from abroad and offshore—surged in usage (Timmins, 1998, 282-285; Wilsher, Macintyre & Jones, 1985). The death warrant of the coal industry was signed by the reduction of government subsidies during the 1970s and finally during the 1980s under Margaret Thatcher, which led to a wave of protests during the UK miners' strike of 1984-1985.

A dead Nature, seen as a machine to be manipulated by engineers, had for a long time offered growth—not only for a rich class, but also for the landless proletariat. Wages rather than living off the land became the way to procure the means of reproduction. When the accumulation crisis hit and capitalists sought for cheap nature, energy and labor elsewhere, this threatened again Britain's labor population, which had become dependent on the wages of these industries. One of the many brutal confrontations that followed was the British miners' strike of 1984-1985 with its culmination in the battle of Orgreave.

The Lancashire case illustrates how capitalist or modernist conception of Nature came about in a complex story that convolutes with the history of capitalist development starting in the long sixteenth century. The story of how the Cartesian dualisms entered the common sense and the development of rational time and space has been told by focusing on the rise of the mechanistic scientists of the enlightenment like René Descartes, Galileo and Kepler (e.g. Crosby [1990], Descola [2014] and Ingold [2000)]), but it can also be told by looking at the lives of the majority of the people. The fact that people in everyday life have internalized the abstract conception of

nature points to the importance of changes in the daily relations and practices of people, that occurred in tandem with scientific and state revolutions. “The separation [of Nature and Humanity] is a function of the increasing real interaction” (Williams, 1980, 83). Capitalist Nature was produced along with the restructuring of urban and rural labor relations.

A New Source of Cheap Nature: Fracking

As a new ontology of nature is posited through capitalist development, so do the victims of the resultant approach to nature resist ontological change and revive an ontology where social reproduction is entangled in nature. Before elaborating on this, however, I will shortly introduce the newest technology that threatens reproduction. A law of diminishing returns is an inevitable part of the capitalist mode of production (Arrighi, 1994, 232; Braudel, 1982, 430). Capitalism creates recurring crises that urge its own expansion. During past cycles of accumulation, the appropriation of new frontiers with cheap nature, labor, energy and money were able to avert capitalism’s crises and provide input for new periods of ever-increasing growth (Moore, 2015). Today, new frontiers are getting harder to find (e.g., Moore [2014] on the end of cheap nature), but this does not prevent capitalism from trying to expand. One of the new frontiers has been found not in the discovery of new lands but under the ground in the (old) core(s) of the world economy. It is unlikely that fracking will generate the same kind of benefits to capital as previous forms of primitive accumulation (see, e.g., Black *et al.* [2021] and Hughes [2011]). Nevertheless, in the desperate attempt to overcome the accumulation crisis, enclosures of commons are happening everywhere. Before turning to fracking as an enclosure, I give a succinct description of what fracking entails.

Hydraulic fracturing of shale formations on a mass scale is an industrial process that has been made possible by technical innovations like horizontal drilling and 3D-seismic imaging. The latter makes the new cheap Nature legible and transforms the countryside in a topsoil covering an ocean of potential shale formations.[7] Fracking took off in the United States around 2000 and soon exploded (by 2015 fracking accounted for 67% of total marketed US gas according to the EIA, 2016, para. 3). The fairly new industry was poorly regulated in many American states. With the 2010 documentary *Gasland* public opinion was made aware of the issues: chemical leakages contaminating ground and drinking water, rigs in residential neighborhoods, considerable seismic activity and all consequential health effects—from eye-irritation to leukemia. In 2011, after the launch of the documentary *Drilling Down* by The New York Times, attention spread to other upcoming fracking countries like Australia and the United Kingdom (Mazur, 2014, 10-13). The latter had its first onshore fracking licenses granted in 2008, amongst those were the licenses for Cuadrilla's operations in Lancashire. Cuadrilla Resources is a British company that was created in 2007. In 2011, Cuadrilla performed its first high-volume hydraulic fracturing job at Preese Hall, four kilometers north of Preston New Road in Lancashire, which triggered seismic events of 2.0 and 2.3 (M_L) on the scale of Richter. This led to damage to the well and eventually ended in the abandonment of the Preese Hall site, but it also worked as a wake-up call for local residents (Harvey, Carrington & Macalister, 2013). Many of the people active in the anti-fracking movement today declare that this was the moment they first became aware of the dangers of fracking. The second fracking job in the UK would take place seven years later in October 2018 at Preston New

[7] Primitive accumulation during the colonial period was accompanied by a similar revolution of mapping and planning (Mukerji, 1984).

Road, although drilling and other preparational activities had been carried out at other sites during those seven years of fracking absence.

Continued Enclosures and state violence

This paper has placed Fracking in a longer history of capitalist transformations in Lancashire. Even though some of developments have moved spatially—the wool industries developed in Manchester and Liverpool, while collieries emerged in rural East Lancashire an fracking in the West—drawing parallels between these developments enables to flush out similarities in the concerns of common people and in the practices of resistance. It makes clear that the Lancashire resistance camps were not a new type of resistance against the latest type of technology but fit into a series of anti-capitalist struggles which have refused capitalism's ontological basis when it harms social reproduction. Firstly, fracking will be framed as a new enclosure of the commons. Secondly, the struggle of fracking is disclosed as a continuation of state violence by juxtaposing it with the struggle over the closing of the collieries.

Commons are not inherent to the fifteenth to eighteenth centuries. Today there are also commons that are being enclosed. The "new enclosures" target information commons (Bollier, 2004), culture (Hyde, 2010), water (Mattei, 2013) and sound/silence (Franklin, 1994). These commons, although partly commodified, are in the common sense of people not yet completely subjugated to the laws of the market. They are essential elements of our subsistence and have not yet completed the same ontological transformation as land has when it went from a commons to private property. In a mechanistic approach to nature and a "rational" property regime, land is defined by its coordinates and can be sold to the highest bidder as an independent substance. As

political economist Karl Polanyi (1944/2001) pointed out, land—like money and labor—is a "fictitious commodity." Prior to the emergence of the world-economy, land, money and labor were not regarded chiefly as commodities to be bought and sold, but they were embedded in social relationships, subject to moral consideration, religious beliefs and community management (see also Bollier [2009]).

Water is also commodified in many instances (it is sold in bottles, tankers or as tap water), yet in other instances (groundwater, clouds, rainwater) it is not. Perhaps because of its free-flowing character, people have not completely lost their conception of water as held in common and therefore resist a further commodification. Between 2000 and 2015 there were 235 cases of water remunicipalization in 37 countries (Kishimoto, Lobina & Petitjean, 2015). Although citizens must pay for publicly owned water, the government is expected to manage it and in many cases it is not allowed to make profit of the sale. Public water is commodified, yet the resistance to privatization shows that water has not yet entirely lost its ontological character as a commons. Countries as diverse as Italy, Bolivia and South-Africa all have known fierce campaigns against water privatization in the last decades. Yet, it is especially the free-flowing forms of water that can be characterized as a commons. Ground water and river water fulfil free work all nature enjoys. Ground water moves under our feet, making the ground fertile, influencing local temperature, feeding plants and rivers; the latter in their turn nourish fish and algae, provides refreshment and dispose waste products. It is the artery of the land. Water is constitutively entangled with all life forms and when it is harmed, it harms the whole community. Thus, it is no surprise that local residents come together to re-emphasize the common importance of clean water when such an important artery is threatened. Land, in contrast, because of its alienated character as private property, does not *seem* to directly affect subsistence. Food can be bought in the supermarket; its connection to the land where it has grown has largely disappeared. Yet when water is poisoned, its

pollution affects the life of all people around because of its mobile character. Concerns about groundwater were abundantly present at PNR, where many of the activists grew up in a rural environment, with families engaged in agriculture. Hydraulic fracturing is based on inserting a mixture of water, sand and toxic chemicals in the ground under high pressure. Only part of the water flows back, and a certain degree of pollution of the aquifer is inevitable. For the protesters, the question was when—not if—the chemicals would reach the surface. They wonder how much pollution is "acceptable" and they found it unjust to burden future generations by poisoning the water today for a short-term profit. Besides chemical leakage, U.S. reports have raised myriad concerns, including the migration of gases to the surface, potential mishandling of wastes (especially wastewater), contamination of ground water and risks to air quality (e.g. USHR, 2011).

Also clean air, like clean water is a necessary condition for reproduction. When encroached upon, a threat to air is felt as an attack on the lives—present and future—of the community. A commons is not necessarily a tangible resource, it can also be the absence of pollution. Fracking threatens the air-commons with hydrocarbon fumes, ozone pollution and methane leaks. Fracking pollution and its health effects have been extensively reported on in the United States (Adgate, Goldstein & McKenzie, 2014; Werner, Vink, Watt & Jagals, 2015). However, because there has not been large-scale fracking in the UK yet, it is hard to determine whether the "gold standard" regulation for fracking in the UK fulfils its promises and whether damaging health effects will be avoided. During a community gathering nearby PNR, both a former Texan oil and gas worker turned activist and a local general practitioner made an appeal to carry out own baseline tests in addition to the company's monitoring schemes to measure coming changes—a monitoring the government did not intend to carry out.

Two last claims to the commons that have resulted into a success in the UK are silence and accessibility. In 2015, the planning application for Roseacre Wood, a second fracking site in

Lancashire, was denied on the grounds of noise and traffic impact. Another appeal in 2019 was turned down for road safety issues (Vaughan, 2019). The rejection of the original application for PNR in 2015 was based on similar arguments: “unacceptable noise impact” and an “adverse urbanizing effect.

Not all arguments opposing the environmentally destructive industries were related to the commons. Some PNR protestors emphasized that fracking decreased property value to convince their neighbors to join their movement. Data from Pennsylvania shows property value decreased up to fourteen per cent for houses near to gas wells (Muehlenbachs, Spiller & Timmins, 2015). In the UK, the 2011 earthquakes decreased property prices in the plot around Preese Hall, Blackpool up to five per cent (Gibbons, Heblich, Lho & Timmins, 2016).

As we have seen, the enclosures from the 13th to the 18th century had an effect on the ontology of nature. If we accept that fracking is another form of enclosure, it becomes clear how also this enclosure threatens the ontology of commons, most notably that of clean (ground) water, clean air, accessibility and silence. Just like the old enclosures, also the fracking “enclosure” has repercussions on the social cohesion of the local community. Psychologist Darrick Evensen and resource conflict-scholar Rich Stedman (2018) found that rapid industrial developments like fracking threaten place meanings and place attachment, due to the threats to the landscape (visual and pollution-related) and due to fractures inside communities between supporters and opponents. As the protesters are well aware, “it is destroying communities” (Nana Anjie, theatre play). Evensen and Stedman (2018) note that people who see their local environment as the source of wellbeing (who see beauty, quietness, a vibrant community and the rural character as essential to the good life) will probably oppose fracking and their response is to actually increase their attachment to place. Thus, the strengthening of an ontology with strong human and extra-human

entanglements could be a counter-reaction to an attack on that ontology by the destruction of the commons, something I will turn to in the next part.

The parallel with the closing of the collieries at the end of twentieth century might at first glance seem less obvious. Since coal was only used in small quantities before industrialization, it has never been seen as a commons. So the struggle over the closing of the mines has never been an ontological struggle. Nevertheless, it was also a struggle over the means of reproduction. The miners formed a landless class, fully dependent on their wages, so when the government decided to withdraw subsidies, many miners saw their subsistence jeopardized. A violent strike followed, in which it became even more clear that the state chose to back capital and not the miners. There have been several miners' strikes from Durham to Kent which were violently broken up, the set-piece confrontation was that of the battle of Orgreave in South Yorkshire, southeast of Lancashire. On June 18th 1984, after weeks of picketing, 5000 miners tried to block the in- and outbound lorries of coal and strikebreakers. Some bricks were thrown, to which the chief constable gravely overreacted. After the police had some back and forth with the outnumbered pickets, they sent in a cavalry charge, which eventually ended up charging the picketers and onlookers alike until the nearby village of Orgreave. It was a brutal example of legalized state violence, using military-like tactics against their "own civilians." Tristan Hunt quotes someone describing it as a "struggle for a livelihood, for jobs, and even for the identity of communities devastated by political decisions to close pits without thought for the lives affected. The poverty, deprivation and oppression were terrible" (Hunt, 2006, para. 9).

In comparison, Andrea Brock (2020) has recently approached the PNR protests from an anarchist political ecology perspective. Similarly to my own findings, she states that many protesters at PNR become very skeptical about the state and the police because of their alignment

with the industry. Protesting "turned liberal fracking opposition into anti-capitalist and anti-state resistance" (Brock, 2020, 11). Or, as an activist formulated it to me "I used to think that the police were there to help people. Not anymore. I've seen how the police treated people […]. They're all in the pocket of Cuadrilla." The direct action at fracking sites and the non-authoritarian relations that develop at protest sites challenge the pillars of both statism and extractivism.

Although striking miners and fracktivists might have adhered to a different ontology of nature, both groups felt the power of industry and the state in a direct way in their social reproduction. Both groups reacted with a fight for livelihood, community, identity, the importance of cooperation and anti-statism; values that are part of a system of commons. The difference in ontology of nature, is not significant, because they are not concerned about a nature outside of humanity, but about humanity-in-nature. For the landless, wage-working proletariat, extractivist jobs were the way to collect the means of reproduction in the nineteenth and twentieth century, but as new frontiers are enclosed, the extractivist industry now poses a bigger threat to social reproduction than the lack of jobs. This has created a situation in which a protester can associate herself with the miners, but ten minutes later yell "class traitor" to a Cuadrilla lorry driver.

Practices of Resistance

Enclosures, where they did not happen to benefit the peasants themselves, provoked resistance—as most threats to social reproduction do. This is as true for the present as it was for the past. The peasant wars of the sixteenth and seventeenth century in England (in 1549, 1607, 1628, 1631) are well studied, and describe "when hundreds of men, women and children, armed with pitchforks and spades, set about destroying the fences erected around the commons" (Federici,

2004, 174). Also, there were petitions on the enclosures, especially aimed against parliamentary enclosures. Yet, all in all rebellions and violent resistance were relatively few according to Neeson (1993, 286). One of the reasons for this was that local inhabitants economically depended upon the enclosers, which had replaced previous social solidarities because of capitalist insertion in village life. More common than open rebellions were the everyday acts of resistance in between the revolts like "foot dragging, feigned ignorance, slander, arson, sabotage, and so forth" (Scott, 1985, 29).

Today, some tactics have changed while others continue. PNR uses a strategy that lies in between the (often more individual) acts of everyday resistance and collective revolt. Individual acts of defiance are difficult to carry out against an industry that makes contact with few people—but nevertheless affects many. A transhistorical tactic that jumps out is that of foot dragging. Although Scott (1985, 30-31) claims that tactics of everyday resistance had a marginal effect during the development of early capitalism (not meaning that they were trivial—far from it), today, foot dragging or delaying tactics have become one of the main strategies of radical environmental protests. Judicial procedures, lock-ons[10], lorry-surfing[11], slow walks[12] (quite literally dragging one's feet), all serve multiple purposes but share the function of delaying the construction process (Brock, 2020). Just like the acts of everyday resistance "have undoubtedly limited the aspirations of many a monarch" (Scott, 1985, 30), the delays caused by the protesters can seriously hurt the viability of fracking, because of changes in the market and because delays lead to loss of resources and decreasing competitiveness. When every project is expected to have higher policing, and public relations and lobbying costs, the profitability of future projects will be affected. This tactic further undermines the potential of fracking as the new cheap source of primitive accumulation.

[10] Chaining oneself to a piece of equipment.
[11] Climbing on top of a lorry to prevent it from moving.
[12] Marching in numbers on the road, slowing down traffic.

Multiple comparisons can be made between the historical enclosures and the fracking "enclosure" regarding resistance. Rebellions against the old enclosures were suppressed by the creation of dependence. Today, Lancashire residents who support fracking do it mostly because of the argument that it will lead to employment—an argument that Cuadrilla and the government of David Cameron fueled by inflating the number of potential jobs (Brock, 2020). One of the strategies the fracktivists employ to counter these narratives is the meticulous counting of the number of people employed on the fracking site. While the historical enclosures redefined the rural population as consumers and made them dependent on commodities produced for them instead of self-produced subsistence (Illich, 1983, para. 14), the new enclosures are legitimized through people's dependence on the wage labor market. The response in both cases has been the same. Citizen movements rebel against their redefinition as consumers and abstract labor by trying to restore and strengthen the social as well as the environmental relations that are destabilized by the exigencies of capitalism. The history of coal mining in Northern England, which learns that the promised jobs might only be temporary and could leave the employees even worse off when the industry moves back out, also contributes to the scornful attitude towards the job creation argument.

I do not intend to give an overview of all strategies at play in fracking camps and how they differ from resistance in previous centuries. Instead, I want to focus one strategy in particular, the building of human and extra-human entanglements. Very few if any protestors stress it as a conscious strategy, but this does not affect its importance. It is in reaction to the alienating quality of the enclosures that activists (re)enforce relations with each other and with the rest of nature.

A first example from contemporary times consists in ceremonies and spirituality. Not all activists at PNR took part in this spirituality; they constitute a very diverse group, but it is worth noting that referring to the earth as "Mother Earth" was a common expression. Seeing the planet

as a *being* allows—no, *requires*—reciprocal relationships with the earth (Stengers, 2015, 43-50). To stress the Indigenous inspiration of these activists—they also held a "healing ceremony for Mother Earth." Another ceremony is that of the Nannas, a group of women, mothers and grandmothers (some with others without children, but all mothers in the meaning of caretakers) who weekly organized slow walks, closing with fifteen minutes of silence at the gates. The silence (a commons) was a moment to connect with the northern landscape and it countered the loud, disruptive and "masculine" industry. The sense of belonging to a group was enormous amongst the Nannas. Before the moment of silence, they often danced, sang or retook parts of the theatre play that was made about their resistance.

Secondly, in their everyday conversations, they often spoke about the birds, trees and clouds. There was speculative fabulation in wondering about the lives of other "critters," creating affective entanglements with other species (cf. Haraway [2016]). Thirdly, activists were striving to be self-sustainable—providing one's own means of subsistence—by producing their own electricity and planning to arrange a garden. Lastly, the strengthening of community relations is not only necessary to sustain the protest itself, it is also a reaction to the alienation created by the fracking enclosures. The camps ran on gifts, such as food, firewood and building materials. Formal and informal arrangements came into play to arrange the 24/7 watch; games and stories were invented to avoid boredom and subsequent social tension, … Thanks to these practices, and many more, the activists strengthened their relationship with nature and the endangered commons, including humanity in nature, the commons of community.

Conclusion

Local environmental struggles are not concerned about abstract, dead Nature but aim at a humanity-in-nature. The activities at the protest camps actively foster human-nature entanglements and an ontology in which the protection of nature is synonymous with the protection of future generations. The creation of human-nature entanglements counters a reductionist modern logic that constructs nature as empty, wild or dead. Thus, activists do not only challenge extractivist infrastructure, but also capitalist logics, which advance a modern ontology through enclosures that destroy ways of relating-in-nature.

Fracking embodies the newest enclosure and constitutes an attack on the means of social reproduction, this time not by enclosing land as in the sixteenth till eighteenth centuries, but by enclosing clean air, water, access and silence. The fracktivists see their protests as a class struggle, not because of the uniform class origin of the activists—they come from most different social backgrounds—but because they see the fracking frontier as another arena in which the state has chosen to back the interests of big capital instead of supporting the local population in their efforts to procure the means for social reproduction. A class struggle is not a narrow economic striving, it is a struggle against the capitalist tendency to destroy the conditions for reproduction for both people and the rest of nature—which are in fact one. According to this logic, the association of environmental protesters with miners is not paradoxical, because in the miners' struggle the issue of social reproduction was at the center too.

The destruction of the conditions of reproduction stems from contradictions inherent to capitalism in its pursuit of the accumulation of cheap Nature and Labor. As production gets too expansive due to exhaustion or to people's refusal to give up their commons, capital will go and search for new cheap Nature and Labor—as has happened with the coal industry after the Second World War. However, as capital continually requires larger and larger profits, as new sources of cheap Nature are exhausted and Labor is refused to cheapen, we can expect more and more

desperate attempts to enclose the last commons. With these enclosures, peoples' social reproduction is jeopardized and resistance grows. Radical resistance will further impede the creation of cheap Nature on which capitalism depends to overcome its crises.

Bibliography

Adgate, John L., Goldstein, Bernard D., & McKenzie, Lisa M. (2014). Potential Public Health Hazards, Exposures and Health Effects from Unconventional Natural Gas Development. *Environmental Science and Technology 48*(15), 8307-8320. doi:10.1021/es404621d

Arnold, David. (1996). *The Problem of Nature: Environment, Culture and European Expansion*. Oxford: Blackwell Publishers.

Arrighi, Giovanni. (1994). *The Long Twentieth Century*. London: Verso.

Black, Katie Jo, Boslett, Andrew J., Hill, Elaine, L., Ma, Lala, & McCoy, Shawn J. (2021). Economic, Environmental, and Health Impacts of the Fracking Boom. *Annual Review of Resource Economics*. doi:10.1146/annurev-resource-110320-092648

Blackburn, Robin. (1997). New World Slavery, Primitive Accumulation, and British Industrialization. In *The Making of New World Slavery* (pp. 511-580). London: Verso.

Bollier, David. (2004). Why We Must Talk about the Information Commons. *Law Library Journal, 96*(2), 267-282.

Bollier, David. (2009, February 24). Why Karl Polanyi Still Matters. *On The Commons*. Retrieved from www.onthecommons.org/why-karl-polanyi-still-matters#sthash.08WeD8mZ.dpbs

Braudel, Fernand. (1982). Civilization & Capitalism 15th-18th Century: The Wheels of Commerce. Glasgow, Scotland: William Collins Sons & Co.

Brock, Andrea. (2020). "Frack off": Towards an Anarchist Political Ecology Critique of Corporate and State Responses to Anti-Fracking Resistance in the UK. *Political Geography, 82*, 1-15.

Crosby, Alfred W. (1989). A Renaissance Change in European Cognition. *Environmental History Review*, 14(1/2), 19-32.

Cuadrilla fracking protest camp set up in Little Plumpton. (2014 August 14). *BBC News*. Retrieved from www.bbc.com/news/uk-england-lancashire-28789444

Descola, Philippe. (2014). *Beyond Nature and Culture*. Chicago, IL: University of Chicago Press.

EIA (U.S. Energy Information Administration). (2016, May 5). *Hydraulically fractured wells provide two-thirds of U.S. natural gas production* [Press release]. Retrieved from www.eia.gov/todayinenergy/detail.php?id=26112

Evensen, Darrick, Stedman, R. C. (2018). "Fracking": Promoter and destroyer of "the good life." *Journal of Rural Studies, 59*, 142-152. doi:10.1016/j.jrurstud.2017.02.020

Federici, Silvia. (2004). *Caliban and the Witch*. Brooklyn: Autonomedia.

Franklin, Ursula. (1994). Silence and the Notion of the Commons. *Soundscape, The Journal of Acoustic Ecology 1*(2): 14–17.

Gibbons, Steve, Heblich, Stephan, Lho, Esther, & Timmins, Christophe. (2016). Fear of Fracking? The Impact of the Shale Gas Exploration on House Prices in Britain. *NBER Working Paper Series*. Retrieved from https://www.nber.org/papers/w22859

Haraway, Donna J. (2016). *Staying with the Trouble: Making kin in the Chthulucene*. Durham: Duke University Press.

Hardin, Garrett. (1968). The Tragedy of the Commons. *Science 162*(3859), 1243-1248. doi:10.1126/science.162.3859.1243

Harvey, Fiona, Carrington, Damian, & Macalister, Terry. (2013, March 13). Fracking Company Cuadrilla Halts Operations at Lancashire Drilling Site. *The Guardian*. Retrieved from www.theguardian.com/environment/2013/mar/13/fracking-cuadrilla-halts-operations-lancashire

Hughes, David J. (2011*)*. Will Natural Gas Fuel America in the 21st Century? Santa Rosa: *Post Carbon Insititute.*

Hunt, Tristram. (2006, September 3). The Charge of the Heavy Brigade. *The Guardian.* Retrieved from www.theguardian.com/theguardian/2006/sep/04/features5

Hyde, Lewis. (2010). Common as Air: Revolution, Art, and Ownership. New York: Farrar, Straus and Giroux.

Illich, Ivan. (1983). Silence is a Commons. The Coevolution Quarterly, 40(Winter). Retrieved from dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/5962/Silence%20is%20a%20Commons.html?sequence=1&isAllowed=y

Ingold, Tim. (2000). *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.

Kishimoto, Satoko, Lobina, Emanuelle, & Petitjean, Olivier. (2015*). Our Public Water Future: The Global Experience with Remunicipalization*. Amsterdam: Transnational Institute.

Luxemburg, Rosa. (1963). *The Accumulation of Capital*. London: Routledge. (Original work published in 1913).

Manning, Roger B. (1988). *Village Revolts*. New York: Claredon Press.

Marx, Karl. (1976). *Capital, Vol. 1*. Middlesex: Penguin Books. (Original work published in 1867).

Mattei, Ugo. (2013). Protecting the Commons: Water, Culture, and Nature: The Commons Movement in the Italian Struggle against Neoliberal Governance. *South Atlantic Quarterly, 112*(2), 366-376. doi:10.1215/00382876-2020244

Mazur, Allan. (2014). How did the Fracking Controversy Emerge in the Period 2010-2012? *Public Understanding of Science*, 1-16. doi:10.1177/0963662514545311

Merchant, C. (1980). *The Death of Nature: Women, Ecology and the Scientific Revolution.* San Francisco: Harper & Row.

Moore, Jason W. (2014). The End of Cheap Nature or: How I Learned to Stop Worrying about "the" Environment and Love the Crisis of Capitalism. In Suter, C., & Chase-Dunn, C. (Eds.). *Structures of the World Political Economy and the Future of Global Conflict Cooperation*. Münster: LIT Verlag.

Moore, Jason W. (2015). *Capitalism in the Web of Life*. London: Verso.

Moore, Jason W. (2016). The Rise of Cheap Nature. In Moore, J. W. (Ed.). *Anthropocene or Capitalocene. Nature, History, and the Crisis of Capitalism* (pp. 78-115). Oakland: PM Press.

Muehlenbachs, Lucija., Spiller, Elisheba., & Timmins, Christopher. (2015). The Housing Market Impacts of Shale Gas Development. *American Economic Review, 105*(12), 3633-3659. doi:10.1257/aer.20140079

Mukerji, Chandra. (1984). Visual Language in Science and the Exercise of Power: The Case of Cartography in Early Modern Europe. *Studies in Visual Communication 10* (3), 30-45.

Neeson, J. M. (1993). Commoners: Common Right, Enclosure and Social Change in England, 1700-1820. Cambridge: Cambridge University Press.

Parenti, Christian. (2014). The Environment Making State: Territory, Nature, and Value. *Antipode 0*(0). doi:10.1111/anti.12134

Polanyi, Karl. (2001). *The Great Transformation: The political and economic origins of our time.* Boston: Beacon Press. (Original work published in 1944).

Rogers, Graham. (1993). Custom and Common Rights: Waste Land Enclosure and Social Change in West Lancashire. *Agricultural History Review, 41*(2), 137-154.

Scott, James C. (1985). *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press.

Scott, James C. (1998). Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven: Yale University Press.
Stengers, Isabelle. (2015). *In Catastrophic Times: Resisting the Coming Barbarism*. Translated by Andrew Goffey. London: Open Humanities Press.
The Ecologist (1994). Whose Common Future? Reclaiming the Commons. *Environment and Urbanization, 6*(1), 106-130. doi:10.1177/095624789400600110
Timmins, G. (1998). *Made in Lancashire: A History of Regional Industrialization*. Manchester: Manchester University Press.
Tsing, A. L. (2005). *Friction: An Ethnography of Global Connection*. Princeton: Princeton University Press.
USHR (2011). Chemical Used in Hydraulic Fracturing, Committee on Energy and Commerce. Washington, DC: U.S. House of Representatives.
Vaughan, Adam. (2019, February 12). Fracking firm Cuadrilla loses planning appeal for second UK site. *The Guardian*. Retrieved from www.theguardian.com/environment/2019/feb/12/fracking-firm-cuadrilla-loses-planning-appeal-for-second-uk-site
Wallerstein, Immanuel. (1979). *The capitalist world economy.* Cambridge: Cambridge University Press.
Walton, John K. (1987). *Lancashire: A Social History*. Manchester: Manchester University Press.
Werner, Angela K., Vink, Sue, Watt, Kerriane, & Jagals, Paul. (2015). Environmental Health Impacts of Unconventional Natural Gas Development: A Review of the Current Strength of Evidence. *Science of The Total Environment 505*, 1127-1141. doi:10.1016/j.scitotenv.2014.10.084
Williams, Raymond. (1980). Ideas of Nature. In *Problems in Materialism and Culture*. London: Verso.
Wilsher, Peter, Macintyre, Donald., & Jones, Michael. (1985). *Strike: 358 Days that Shook the Nation*. London: Sunday Times.