The London School of Economics and Political Science

Digging Deeper: Precarious Futures in Two Australian Coal Mining Towns

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A thesis submitted to the Department of Anthropology of the London School of Economics for the degree of Doctor of Philosophy

London, August 2019

DECLARATION

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

 I declare this thesis consists of 92,482 words.

ABSTRACT

This thesis contributes to the anthropological literature on the Anthropocene through an ethnography of coal mining communities directly affected by contemporary changes in the fossil fuel industry. It will argue that coal is a specific material around which historic and future collective imaginations pivot. Therefore, it is central to the theoretical discussion of the Anthropocene as well as national and international political debates. The political discussion around coal in Australia is stuck in a binary 'jobs versus the environment' discourse. However, this thesis will show how the issues facing coal communities are significantly more complex. Rather than diametrically opposed, concerns about 'jobs' and 'environment' are both implicated in questions of precarious livelihoods. This thesis will highlight the lived transition for those whose lives are embedded in an Anthropocenic past and present, but who face increasingly unknown futures.

The thesis draws on twenty months of fieldwork within two coal mining communities in Australia: Moranbah in Central Queensland and Singleton in the Upper Hunter Valley of New South Wales. The findings from the first fieldsite describe the many changes to the labour force resulting from a weakening labour unionism, increased labour casualisation, and a growth of fly-in-fly-out workforces. Those from the second fieldsite direct attention to land-use conflicts and the anticipatory practices of the community as people imagine the future of their region beyond coal through the mechanisms of state planning bodies and landscape rehabilitation. The two perspectives illuminate the interplay between precarious lives built around the Australian coal mining industry and complex moral debates about the future of coal in Australia.

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ACKNOWLEDGEMENTS

I first want to acknowledge the Barada Barna People as the traditional owners of the land in and around Moranbah; the Wonnarua people who are the traditional owners of the land in which I conducted research in the Upper Hunter Valley, and the Wurundjeri people of the Kulin Nation, on whose lands I currently live and much of this thesis was written. They have never ceded sovereignty and remain strong in their enduring connection to land and culture.

My foremost gratitude goes to the people of Moranbah and the Upper Hunter Valley who let me into their lives and trusted me to represent their stories. I hope I have done justice to their concerns, and in representing their precariousness, not lost sight of their persistence, joy and humour. I wish I could have shared more of their triumphs and their passions. Although so many stories have had to be left out, I hope their warmth and spirit shines through my academic language.

I also owe a particular gratitude to those who allowed me into the coal lobby organization which I do not name in this thesis. In a context in which information is carefully managed, their acceptance of my desire to observe their inner workings was an act of both unusual transparency and hospitality. These people will have to remain anonymous here but should know that they have my appreciation and respect, and again I hope I have managed to represent them fairly.

I want to thank my supervisors, Gisa Weszkalnys and Deborah James. Thank you both for your continuous support and for working with my personal demands and limitations. Gisa, thank you for inspiring so many critical thoughts and for always finding time for a late night Skype session. Deborah, thank you for your extremely close

readings, attention to detail and many grammar lessons. Your expertise and assurances were critical in my moments of insecurity.

Thank you to my PhD cohort at the LSE. You have inspired me in countless ways. Your research and critical thoughts and comments through our writing up seminar were immensely helpful, but even more I have been inspired by what wonderful and fascinating people you all are as colleagues and friends. I could not think of a better group of people to have gone through this difficult journey with: Doris Okenwa, Sarah Leneham, Lucy Trotter, Itay Noy, Thomas Herzmark, Thomas Joassin, and a special thank you to Jiazhi Fengjiang, Megnaa Mehtta, Valentina Zagaria, and Branwen Spector for your supportive friendship and messages of support throughout fieldwork and writing up.

Also to the LSE PhD candidates in cohorts above and below who were part of the writing up seminars at the LSE and provided helpful feedback as well as stimulating discussion within and outside the classroom: Chiara Arnavas, Ivan Deschenaux, Michael Edwards, Sandhya Fuchs, Anishka Gheewala Lohiya, Liisa Kohonen, Megan Laws, Mascha Schulz, and Connor Watt.

Thank you to the anthropology department at the LSE for accepting my last-minute change of fieldsite and working with my personal circumstances. Thank you especially to Rita Astuti, Charles Stafford, Mathew Engelke, and Michael Scott for their assistance. Further thanks to Laura Bear, Katy Gardner, Geoffrey Hughes, and Agustin Diz, for their close reading and comments on writing which has gone into this thesis. I also have many debts to the anthropology community in Australia. Firstly, thank you to Kim de Rijke and David Trigger at the University of Queensland, who helped me

originally develop my research project, pointing me to the coalfields in the Bowen Basin when I was unsure of where to research. Thank you also for managing the bureaucratic trials of my visa sponsorship. Gratitude is also due to Linda Connor, Jon Altman, and Tim Neale who met with me in my earliest days and whose hospitality has continued to nurture my thoughts as I wrote in Australia. Thanks also to Hedda Askland, Cassie DeFillipo, Stephen Pollard, and Mallory James for numerous stimulating conversations during research and writing-up. A special thank you to Monica Minnegal for going above and beyond to make me feel welcome in Melbourne, inviting me to events and organizing library access. I could not have managed the terms away from London without your generosity and the intellectual community you introduced me to.

I also want to thank Arturo Escobar and Eunice Sahle at the University of North Carolina at Chapel Hill for their early and continued intellectual mentorship. Thank you for opening my mind to the political possibilities of critical analysis and for treating me as a fellow comrade in scholarly arms.

Finally, I want to thank my family. Thank you to my parents who despite not always knowing what anthropology was about, never questioned my decisions and were always proud of their daughter. To Cortney, Ryan, Andy and Jane, thank you for understanding when my research and passions take me away from you. To my adoptive family in Australia: Doug, Di, Prue and Richard. Thank you for welcoming me into your family. Finally, thank you James. Thank you for listening to my incessant critical analysis, but then always asking me "what are you going to do about it?" You keep me grounded, sane, and remind me to find purpose in my work and life.

GLOSSARY OF ABBREVIATIONS

ALP- Australian Labor Party

BMA- The combined name of BHP and Mitsubishi in their joint mining operations

CCC- Coal Community Conference (a community relations arm of the CLO)

    CLO- Coal Lobby Organization (the lobbying organization of which the CCC is a branch)

CFMEU- Construction, Forestry, Mining, and Energy Union

CSR- Corporate Social Responsibility

CUB- Cashed up Bogan

DIDO- Drive-in-Drive-Out

FIFO- Fly-In-Fly-Out

GFC- Global Financial Crisis of 2008

NIMBY- Not in my backyard

NSW- New South Wales

OECD- Organisation for Economic Co-operation and Development

PAC- Planning Assessment Commission

CONVERSION AND PSEUDONYMS

Conversion note:

1 Australian Dollar (AU$) equals approximately 0.57 British Pound Sterling

1 Australian dollar (AU$) equals approximately 0.72 United States' Dollars

Pseudonyms are used to refer to all people in this thesis unless they are public figures or have spoken publicly about their circumstances. In the cases of individuals who have spoken publicly but whom I also encountered privately, I draw from publicly available information.

I have also used a pseudonym to refer to the pro-coal lobby organization in which I did research. This is an attempt to protect the anonymity of the small group of people which would be too easily identifiable if the organization were named. Some identifying characteristics have also been changed to further protect anonymity.

INTRODUCTION

Figure 0.1 Peak Downs Highway in Central Queensland (Author's photograph)

When driving down the highway through the parched landscape of Australia's Central Queensland in the dry season, it is hard to imagine that this land of dust and scrub was once a lush wetland forest. Today kangaroo corpses line the roadside, victims of large trucks as the roos' desperate thirst draws them here to lick the dew that collects on the asphalt in the early morning. Once this land would have been thick with ancient ferns, some decomposing and buried in the marsh, others competing for sunlight in the dense wet forest. It is difficult to envision but my purpose in driving this route proves this ancient climatic past, for I am here travelling to the coal fields of Australia's Bowen Basin.

Coal is buried organic life, ancient flora and fauna, that over hundreds of millions of years has been compacted and pressurized into the black rock we burn today. This particular coal basin is traced back to the late Permian Age around 280 million years ago when the area was a swamp and the dead plants and animals were buried under the water, preventing oxidation and allowing the build-up, compacting and transformation of these organisms into a fossil fuel (Van de Wetering, et al. 2013). Coal is thus deeply historical (Chakrabarty 2009). It is photosynthesised sunlight captured in biological organisms and preserved for millions of years; yet we have endowed it with a profound affiliation to modernity and progress. As the story goes, coal is the fuel with which modern industrial society was built; it powered the railways, the steam ships, and eventually the powerplants that brought reliable electricity to factories and homes, spreading development and improving humanity's quality of life (Freese 2004: 8). However, its role in this narrative of progress is now being reconfigured. By burning this ancient energy, among other activities, we are drastically altering the composition of the atmosphere and causing anthropogenic climate change (Intergovernmental Panel on Climate Change 2007).

The increased global concern over climate change and coal's significant contribution to it has shifted the moral framing of coal from a source of development and progress to a potential threat to the planetary future. For many white settler Australians, coal is a source of economic prosperity providing significant export revenue, cheap electricity, and employment for a number of regional communities. Coal is thus celebrated by many, given honorifics in the naming of businesses and landmarks in regional towns (cf. Scott 2010: 6). At the same time "Coal Kills" is becoming an

increasingly prominent phrase on protest signs, in green political rhetoric, and even mundane discourse as other Australians grow increasingly concerned about coal's contribution to anthropogenic climate change. The current prime minister Scott Morrison, then Federal Treasurer in February 2017, infamously brought a lump of coal into parliament, yelling 'Don't be afraid' as he waved it around to mock the demonizing of coal he associated with the Australian Labor politicians across the aisle (Murphy 2017). Despite the occasional rhetorical flourish, coal *alone* neither kills nor employs. Rather coal is enveloped in a complex socionatural world (Escobar 2008: 29) in which it is made meaningful as ambiguously productive and destructive. In this socionatural world coal is turned from an ancient sedimentary rock into a natural resource through a complex assemblage of materials, infrastructure, discourse, affects, and systems of value, all lived and contested through everyday lives (Richardson and Weszkalnys 2014).

This thesis follows various threads of this resource assemblage across shifting terrain. Competing discourses attempt to frame coal in relation to opposed political goals and conflicting visions of Australia's past and future. Pro-coal positions emphasize the economic contributions of coal and particularly its role as a provider of regional employment. Environmentalists emphasize the threat posed by coal through its devastating environmental effects. This 'jobs versus the environment' discourse results in a frustrating political impasse which obscures shared concerns over Australia's future (cf. Scott 2010) and encourages a political divisiveness increasingly evident in the contest over climate change and the related rise of far-right populism. This thesis aims to expose this binary as too simplistic, by taking seriously the everyday and ordinary implications of life around coal in contemporary Australia. However, it is also guided by an analytical

gap created by the prominence of post-humanist perspectives on the Anthropocene, which have become the primary guiding framework for an anthropology of contemporary environmental crisis (Haraway 2016; Latour 2013, 2014, 2017; Povinelli 2016). This theoretical framework generates a similar impasse which overshadows differentiated responsibilities and operations of power within modernist ontologies. Instead, the thesis proposes an anthropological perspective that focuses on the Anthropocene as it is *experienced*, particularly through paying attention to the inherent mutuality of precarious labour and precarious lives.

For my Australian informants, this experienced Anthropocene is felt through a multiple and compounding precariousness. As modernist progress narratives no longer offer stable futures, labour and environmental relations shift inexorably. Precarity for coal miners comes not only from the uncertain working conditions that threaten their future livelihoods, but also from the fact that the very material they extract through their labour threatens the planetary future (Weston 2012). Exacerbating this dynamic is that coal mining communities face a double bind. The companies for which they work are systematically casualising the workforce and undermining privileged social values and community built around stable mining jobs. Yet their ability to critique the companies on which they depend for their (increasingly precarious) livelihoods is undermined by the rise of moral discourses around climate change that paint coal as murderous. Miners, instead of criticizing their employment conditions, feel the need to defend the industry in which their lives are entwined and thus they, themselves, are morally implicated. This highlights how the commodification of coal resources involves more than the Cartesian division of society and nature—as ontological approaches to the Anthropocene imply

(Haraway 2016; Latour 2013, 2014, 2017; Povinelli 2016)—and instead derives from context dependent political and historic situations. This thesis will focus on the complex discursive, affective, material and institutional arrangements enable and maintain the unstable configuration of commodified coal in the context of Anthropocenic precarity (cf. Bear et al. 2015; Bell 2017; Richardson and Weszkalnys 2014; Tsing 2005, 2015; Weszkalnys 2013, 2016).

This thesis draws on long-term fieldwork within two Australian mining towns. It puts those who work in and around the coal industry at the centre of the analysis, looking at their everyday lives and the challenges and paradoxes that they face as coal's role in Australia's future becomes increasingly questioned. It is therefore an ethnographically grounded perspective on the Anthropocene as a concept to describe the contemporary refiguring of human and environmental entanglements and the anxieties and precariousness provoked by disillusion with these modernist foundations. In contrast to what much social theory on the Anthropocene implies (Chakrabarty 2009; Latour 2013, 2017; Latour et al. 2018), this is not some grand awakening or ontological restructuring of society/nature mutuality for my informants, but a local manifestation of political economic and social changes and their resultant experienced insecurities.
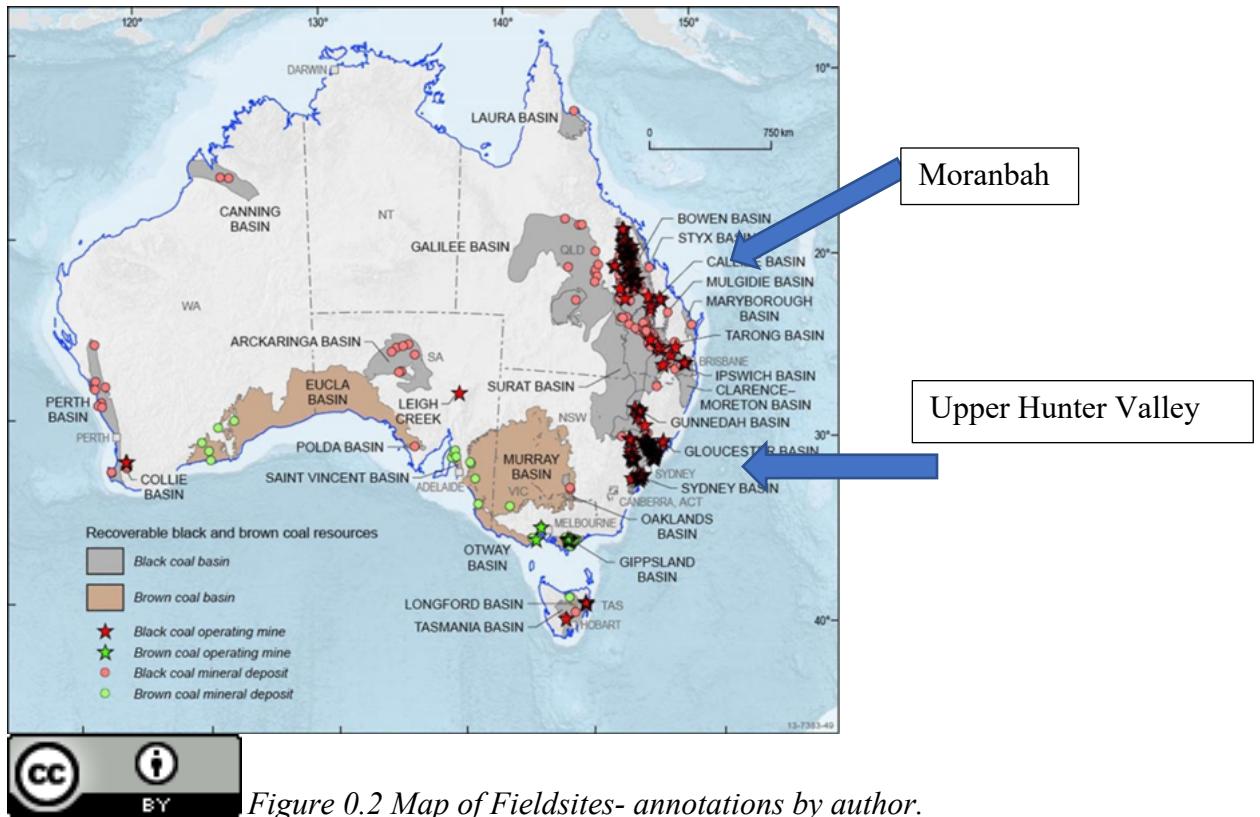
Figure 0.2 Map of Fieldsites- annotations by author.

My first ten months of fieldwork (September 2015-July 2016) was conducted in the town of Moranbah, a mining town in Central Queensland focused on the production of coking coal, that is, coal used in the production of steel. The town was officially founded in 1971 and was built specifically to house the employees—and families—of the open-cut coal mines being built in the surrounding region. The town's direct relation to the surrounding mines, with little other industry, makes it particularly vulnerable to swings in the commodity price as well as the employment strategies of the mining companies on which the town depends. The increasing casualisation of labour coupled with strategies of labour dislocation through long-distance commuting haunt the future of this emplaced mining community. Such precarity takes a very different form in my second fieldsite, the Upper Hunter Valley of New South Wales (research conducted

September 2016-July 2017). This region focused on the mining of thermal coal, that is coal used for energy production, with numerous rural industries intermixed with large open-cut and underground mines. Although also facing workforce casualisation, the existence of alternative industries in the region buffers the effects of commodity price cycles and mining employment, but presents new challenges linked to land use conflict. Further, because the region mines thermal coal it is more directly affected by potential carbon emissions reduction policy and shifts to renewable energy generation. Many of those dependent on the coal mining industry recognize the vulnerability of their dependence in the context of anthropogenic climate change.

This introduction, firstly, will discuss the recent political debate around coal in Australia in order to argue that coal represents a particular material around which national anxieties and affects revolve. These link climatic vulnerabilities to neoliberal economic dependencies. Central to the debate that surrounds the Australian coal industry, and the experience of those depending on it, is a multi-layered precarity that derives from the upsetting of modernist imaginaries and the associated reworking of historic socionatural relations. I will then describe my two fieldsites through which I have studied the local consequences of these dynamics. Subsequently, I will examine how this relates to the theoretical debate on the Anthropocene in anthropology; I propose an alternative anthropological project that focuses on how the Anthropocene is lived, made, and contested in the everyday through the precariousness of lives lived around coal in Australia. The introduction ends with a chapter outline.

The Climate Wars: The Political Centrality of Coal in Australia

At the heart of the current debate over coal and Australia's contribution to climate change are a number of competing concerns over national and regional vulnerabilities and responsibilities. Australia is a major contributor to global climate change as the OECD's highest per capita carbon polluter (Butler 2017: 44). Of further significance, Australia is the world's largest exporter of coal. In 2017 Australia exported 200 million tonnes of thermal coal worth AU$20.8 billion, and 172 million tonnes of coking coal worth AU$35.7 billion (Hosie 2018). This represents 36.6 per cent of all global coal exports (Workman 2018). Australia's coal exports do not count towards its own emissions through the accounting mechanisms of international agreements, but its exports contribute to global carbon emissions regardless of the location of the carbon's release. Not unlike the double bind faced by coal communities themselves, Australia as a nation thus also faces the double bind of having an economy heavily reliant on the continued use of coal domestically and internationally and of being very vulnerable to the effects of climate change (Eriksen 2016; Eriksen 2018a).

No individual weather event can be directly attributed to climate change, but Australia has seen worrying trends. The Great Barrier Reef has been a particular focal point for witnessing these effects (Skadsheim 2017). During the summers of 2016 and 2017 it experienced extreme bleaching events,[1] which – alongside ocean acidification from increased CO_2 concentrations – threaten its health. Australia is also the world's driest inhabited continent facing regular droughts and bushfires. Even though these are not new phenomena the frequency of extremely hot days has increased in recent years,

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[1] Bleaching occurs when as a result of rising ocean temperatures symbiotic algae release from the coral which can lead to the coral's death through starvation.

which makes bushfires more likely and dangerous. Add to this a marked rise in sea levels and it is clear that the effects of climate change will be very noticeable in Australia - a country where the majority of the population lives along the coast (Butler 2017; Garnaut 2008; Krien 2017; Pearse 2007).

Despite the threat of climate change, Australia's politicians have failed to unite behind a plan to reduce carbon emissions. Instead, Australia has faced political turmoil through a series of interparty leadership coups which has been popularly termed the Climate Wars (Butler 2017). This has seen Australia have seven Prime Ministers in the last eleven years. These 'wars' are far from over. Debates over a carbon tax and a mining super profits tax, both of which were first introduced by Kevin Rudd's moderate left Australian Labor Party (ALP) government in 2007, [2] saw Rudd replaced by Julia Gillard. Her place was then taken by Rudd in 2013, partially because of the backlash for her carbon tax. Rudd promised to replace this tax with a weaker emissions trading scheme in the ALP's 2013 campaign. However, Rudd's ALP government lost the 2013 election to the major party of the right, the Liberal party under Tony Abbott—in coalition with the National Party—who ended the carbon tax (Chubb 2014). Despite another interparty leadership challenge which saw Abbott replaced by the more moderate Malcom Turnbull in 2015, the conservative wing of the Liberal-Nationals rose again in relation to another energy policy, this time the National Energy Guarantee. The coal advocate, Scott Morrison—referenced earlier for bringing a lump of coal into Parliament—became the Prime Minister in August 2018.

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[2] The Australian Labor Party uses American spelling, dropping the 'u' in 1912 (McMullin 1991).

Although these leadership changes are about more than climate and energy policy, that policy is undeniably the common denominator that unites contemporary Australian political contests. More than anything else the Climate Wars involve contested understandings of the role of coal in Australia's future (Crabb 2018). In the words of the ALP's shadow minister for Climate Change and Energy, Mark Butler:

> Coal is the frontline in the Climate Wars. In part, that reflects the obvious point that coal is a major driver of carbon pollution and that there are now viable alternatives, in power generation at least. But it has also become a totem that mirrors the importance that you attach to action on climate change (Butler 2017: 114).

The concern about coal in parliamentary politics inevitably filters into the everyday lives of coal miners and their communities, power bill-paying residents, retirees with savings held in mining shares, and the large population worried about the environmental effects of climate change. What may appear as simple disagreements over the proper level of mining company taxation or the settings of emissions reductions targets for Australia's energy sector is, rather, a complex debate over competing visions of Australia's past and future. Indeed, as this dissertation will show, coal serves as a particular material on which Australia's increasingly contested modernization narrative converges and around which moral arguments about Australia's role in a changing, increasingly global, world take shape (Skadsheim 2017).

The scientific consensus on climate change and the development of viable alternatives to coal have been countered by growing concerns about protecting coal jobs and the communities which rely on them. This has created strong opposition to climate and energy policy as the interests of mining companies converge with the populist support of regional mining communities. This support derives from an extensive industry

lobbying effort but has traction because it draws on historically founded anxieties about mining's centrality in Australia's past and future place in the world (Knox 2013: xiii). The background to these concerns is discussed in the next section.

The World's Quarry: A Brief History of Australian Coal

The first British ship to reach Australian shores, the Endeavour captained by James Cook, was a converted colliery ship that in its previous life had transported coal from Yorkshire to London (Comerford 1997: 6). Cook's voyage of 'discovery' was followed by Arthur Phillip's First Fleet, which arrived in 1788 to establish a penal colony and colonial outpost of Britain (Clark 2006[1963]: 17). The British Industrial Revolution, and associated economic and social upheaval, fuelled urbanization and a growing population of unemployed in the British cities, some of whom eventually found themselves convicted of minor crimes and sentenced to 'transportation' to the new colonies as a spatial fix to surplus labour, creating a new centre of capitalist accumulation by dispossession (Harvey 2003).

Australian history is thus intertwined with Britain's Industrial Revolution. However, as many have pointed out, the story of coal that played out in both these settings predates the invention of the steam engine (Haraway 2015; Moore 2015, 2017a, 2017b). The structures of commodification and appropriation through the ever-expanding colonial and capitalist frontier had been laid down in the metropole for centuries before the British arrived in Australia. Starting from the long 16th century, these were to enable the reproduction of a system of exploitation through the relations of global coloniality (Moore 2017a, 2017b; Quijano 2007). For example, although there may be

some truth to the claim that the textile industry in urbanizing England was energized by the invention of the steam engine and use of coal, it also required the cotton plantations of the New World and thus the earlier-established structures of Atlantic slavery and trade.[3] And the establishment of Australia as a penal colony required the legal and epistemic foundations of coloniality, including those that legitimated the dispossession and genocide of Australia's indigenous population (Povinelli 2002; Wolfe 1999, 2006).

It was not long after the arrival of the First Fleet that coal was found in the new colony,[4] and the colonial authorities ordered that a trade be developed between the Australian colonies and the British station at the Cape of Good Hope in which ships would exchange their loads of coal from Australia for South African livestock and contribute to Britain's global colonial enterprise (Comerford 1997: 24). The British sent drilling equipment to develop coal mining. However, for a long time, coal was readily available and was collected from shallow seams visible from cliff edges and broken pieces which washed up on river beds and estuaries. The collection of these easy to access sources encouraged traders to develop a small trade which filled the market for coal in Sydney. In fact, despite the colonial orders to send coal to South Africa, Australia's first international export was a shipment of coal that was purchased by the British East India Company and sent to Bengal (Comerford 1997: 32-33).

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[3] Further as Malm (2013) has shown, the use of steam power to replace water in cotton mills was not about the cheaper price of steam energy or a lack of available waterways, but about the reserve army of labour in Britain's cities which enabled labour control. I will discuss this spatio-temporal organization of labour further in chapter one.

[4] The first recorded find was by a party of escaped convicts led by William and Mary Bryant who on 28 March 1791 stole a boat to escape Sydney. A later, although more officially recognized, discovery was made by Lieutenant John Shortland who found coal while pursuing another group of fugitive convicts in September 1797 (Comerford 1997: 16-19).

Coal was first mined in an official form by convict labour in the area around Newcastle, New South Wales, a name reflecting the region's British counterpart. Convicts, Britain's excluded poor, and the urban petty criminals spurred by the Industrial Revolution and shipped across the world as simultaneously prisoners, labourers, and colonizers, were Australia's first miners. In due course they began agitating for better working conditions and would become central to Australia's heritage of organized labour (Comerford 1997: 117). Near the end of British transportation to New South Wales in 1840, coal mining became a company-operated process replacing the colonial state's control.

In 1851, the broad historical narrative of Australian mining centres itself on the goldfields of Victoria. Here, the goldrushes of the mid-19th century played a crucial role in the development of contemporary Australia, not only providing a significant proportion of the wealth with which cities like Melbourne were built, but also in crafting some of the major narratives about the 'Australian character' that echo in the more contemporary political issues around coal with which this thesis is concerned (Knox 2013: 77).

Of first concern is the connection between mining and the foundation of Australian democracy. The earliest goldfield unions were mutual self-help organizations in which collected dues would be distributed to members in times of hardship; thus, unions organized against the state rather than against companies, complicating labour and capital relations in Australia (Knox 2013: 164). The Eureka Rebellion is a particularly important narrative in Australian history in this regard. The Eureka Rebellion took place in the goldrush town of Ballarat in Victoria in December 1854. The gold miners were fighting the regulation and enforcement of a mining license system, which they felt was

an undue burden as well as a form of taxation without political representation. The rebelling miners burned their mining licenses and constructed a small stockade. The agitation broke out in violence in the very early morning on the third of December when colonial forces attacked. A ten-minute battle ensued before the stockade fell. However, the public support for the rebelling miners in the aftermath is said to have directly led to the introduction of colonial male suffrage in Victoria's lower house of Parliament (Knox 2013: 242-245).

Secondly, and of particular importance, was that these early experiences in the history of the nation laid the conditions of the boom and bust and the gambling instinct of prospectors and mining-share speculators. The goldrush fuelled a mining share and property bubble, which eventually burst in the 1890s. This led to mass unemployment, an economic depression, and set the boom and bust pattern that would characterize the Australian mining industry to this day. For both miners and investors, prosperity is often only temporary (Knox 2013: 79, 165). [5]

After the depression at the end of the first mining boom—and recognizing the vulnerability that a quarry-based economy created—Australia embarked on an

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[5] Further, the concept of gambling one's savings on the mining industry is not limited to the elite high rollers. Most Australians indirectly own mining company shares through their superannuation. As part of the neoliberal economic reforms to be discussed shortly, superannuation was set up as a government mandated, but privately managed, form of investment for retirement savings. Employers are mandated to contribute a percentage of employees' wages to privately managed superannuation investment funds (Barret and Chapman 2001). Through these funds, many ordinary Australians are shareholders of the Australian Securities Exchange listed mining companies, of which BHP Billiton represents ten per cent of the exchange's market capitalisation. Rio Tinto, Origin Energy, Woodside Petroleum, and SOUTH32 (a 2015 spin-off of BHP) are also included in the twenty biggest listed companies (ASX 20 List 2018), making the vast majority of Australians indirect investors in the mining and energy industry.

industrialization project introducing protectionist tariffs in an attempt to develop secondary industry. The state encouraged and made investments in steelworks and factories. The intention was to take advantage of Australia's comparative advantage of abundant and cheap energy in the form of its coal reserves to help shift Australia towards manufacturing. Thus Australia's abundant coal resources were meant to facilitate the development of an energy-intensive industrial sector, alongside direct exports.

During these protected industrialization years, the coal mining unions—particularly influenced by the communist party faction—were active and militant (Bramble 2008). 1949 saw a particularly tense mining strike, in which miners fought for a 35-hour work week, led by the communist factions of the labour movement. The Australian Labor Party was divided and eventually chose not to support the miners and worked to break the strike. The Labor government of Ben Chifley passed the National Emergency (Coal Strike) Bill and broke the strike by calling in the military to mine, imprisoning strike leaders, and freezing union accounts (Knox 2013: 280). The communist faction of labour politics declined after this loss, but union membership remained high in the coal mining sector throughout the post-war period, and militant protests continued throughout the second half of the 20th century, even winning the 35-hour work week in the coal industry in 1970 (Peetz and Murray 2010).

However, such strong unionism was rolled back particularly due to the neoliberal reforms of the 1970s. The previous collective bargaining system involved a patterned, industrial-level system in which entitlements were secured in protected enterprises that were more amenable to labour demands. These awards were then leveraged to secure the same wages and entitlements in other firms, creating industry-wide entitlements. This

ended up leading to inflation when the economy stagnated in the mid-1970s but wages

continued to increase through the unions' strong bargaining power. The Hawke and later

the Keating Labor governments worked with the unions to get inflation under control

through a number of accords with the main trade unions. Through these Prices and

Incomes Accords, the government promised increases in the so-called social wage in

exchange for cuts to real wages and decreased bargaining power (Bramble 2008). [6]

These labour accords were one part of the larger programme of economic reform in

the Hawke-Keating years, which also floated the Australian dollar and reduced trade

restrictions and tariffs. The post war opening of the Australian economy and the roll-back

of the protectionist tariffs eventually saw the mining industry open up to full foreign

ownership. As Knox notes:

> Integration into a more globalized economy at the end of the twentieth century saw
> the wheel come full circle, as the manufacturing dream failed through lack of
> international competitiveness and Australia again became a quarry of metal ores
> being dug up with foreign money, owned by foreign shareholders and sold to foreign
> users with no value-added (2013: 361).

The particular role of coal's integration in the transition from colonial extraction, through

convict labour to protected industry with strong labour protections, and then to neoliberal

de-industrialization and labour protection roll-backs illustrates that coal is entangled in a

number of larger questions about Australia's past and future. As Ferry and Limbert

describe in an analysis relevant to the Australian case, "'[n]atural resources,' are

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[6] Another major setback to union power came with the introduction of the WorkChoices
legislation under the Liberal John Howard in 2005, which limited the ability to go on strike and
emphasized individual agreements over enterprise agreements. Labor abolished this when coming
to power under Rudd in 2007, replacing it with the Fair Work Act 2009, which returned
enterprise bargaining but continued to outlaw the pattern industrial level bargaining of the past
(Bramble 2008).
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intimately tied to the history of the nation-state as a modern political form" and "[n]ations often base claims to modernity on their abilities to manage their resources appropriately" (Ferry and Limbert 2008: 11). Thus, historical narratives that emphasize mining's role in the making and growth of Australia as a self-sufficient nation-state are contrasted to more contemporary uncertainties and dependencies. The return to primary commodity exports and the roll back of industrial protections in the era of neoliberal economic reforms reflect a retrogression. National projects of industrialization and their associated promises gave way to neoliberal imperatives of comparative advantage. This has affective consequences for those who have previously benefited from such industrialization and whose visions of progressive futures rely on such political economic conditions.

These historic trends of resource dependency and their affective consequences are reminiscent of the dissolution of modernist dreams that have been more closely analysed by anthropologists in respect to the so-called Global South, which has long suffered the contradictions of development dreams and structurally adjusted neoliberal realities (Comaroff and Comaroff 2012; Ferguson 1999; Piot 2010). As these studies show, the foundational narratives of modernity have been called into question as they no longer seem to offer the promise of development and progressive futures as they once did. Critically, the particular conditions of increasing concern over anthropogenic climate change and environmental crisis add a complexity to the dissolution of modernist imaginaries and the resultant precarity.

The hope and fear that centre on coal mining in Australia reflect what Weszkalnys has described as resource affects (2016). These are not merely after-effects of the commodification process of natural resources but are intrinsic to their making. Mining

has been and continues to be a fundamental part of Australia's modern economy, yet this wealth is viewed with suspicion. Australia's natural resources are part of what made it a 'lucky country' as Horne declared in 1964 (2009[1964]). However, if Australia's success depends on luck, there is always the threat that this luck will run out. Or as historian Malcom Knox puts it:

> Australians' most primal fear is that we are on the end of the earth, leading a tenuous, chancy existence, at the mercy of forces beyond our control. If we are again to be the world's quarry, what will be here after the rocks are gone, or after the world stops wanting them (2013: 78)?

Australia exists as a nation that does not fit neatly into political economic typographies. It is a geographically southern member of the Global North, yet increasingly dependent on the growing economies of the emerging Global South as its trade partners. It possesses a complex racial history as a British settler colony with a long period of a White Australia immigration policy, which has now given in to a late liberal multiculturalism and linked economic reliance on Asia as a consumer of its commodities and financer of its development (Povinelli 2002: 21). The opening of the Australian economy in the 1970s through to the 1990s replaced the former socio-cultural attachment to Europe with an economic and geographic proximity to Asia, but with this came anxieties over the failed industrialization and protectionist policies of the first half of the 20th century (Knox 2013). This replaced industrialization dreams with a reliance on primary commodity exports and fuelled anxieties over a so-called resource curse (Cleary 2011, 2012; Pearse 2009) which were further emphasized through the recent commodities boom and bust to

be described shortly. [7] Relatedly, Australia's identity as a kind of dislocated European outpost is threatened by the contemporary world order as foreign immigration and foreign investment increase. This creates dependence on Asia's growth and international decisions on carbon emissions reductions. Simultaneously technological changes and increased automation are decreasing mining's labour needs particularly in male-dominated positions. This conglomeration of factors means that coal mining, masculine labour, xenophobia, and climate change are entangled in a knot of anxieties which derive from the particular historical trajectory of Australian mining but also relate to global late-capitalist trends (cf. Scott 2010). These entangled factors create an affective assemblage of precariousness experienced by those whose lives and livelihoods are implicated in these political economic conditions.

This similar set of dynamics has been associated with the rise of far-right populism in many locations across the globe, particularly the Brexit referendum and Donald Trump's election. Briefly, the narrative around these political developments implies that as the working class reacts to a perceived loss of power, prestige, and an economic future, they have exchanged their previous labour support for far-right parties, retreating from globalism to new imagined nationalisms. While there are many

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[7] The resource curse refers to an economic theory that emerged in the late 1980s to explain the contradiction of resource rich countries that suffered from poverty and low economic growth rates. The theory is thus used to link a whole host of conditions, as natural resource wealth is linked not only with financial conditions, but also corruption, conflict, environmental degradation, police suppression, dictatorship, and instability. Weszkalnys shows how hope becomes a negative externality through fears of the resource curse (Weszkalnys 2011). Although the worst violences of the resource curse have avoided Australia, the revolving door between lobbyists and regulators, and police crackdowns against anti-mine protestors, have social commentators concerned about the anti-democratic tendencies of resource dependence (Cleary 2011, 2012; Pearse 2007, 2009).

connections to this broader trend which links conservative political consequences to the economic and social transformation of de-industrializing regions, it is critical to understand these movements in their particular context (Kalb 2009). This thesis will take the discussion beyond the simple and biased narrative of a revengeful white working class (Gusterson 2017; Mazzarella 2019; Smith 2017) and recognize the real anxieties of experienced change. I will show how this growing nationalism seems to take a particular relationship to the moral accusations around coal jobs and environmental responsibilities in Australia, deriving from the dependencies and paradoxes that arise through coal miners' complex relationship to mining in contemporary conditions.

Fieldsites and Methodology

In order to study these dynamics, I conducted twenty months of fieldwork, split evenly between two coal mining towns in different regions of Australia. Australia produces three types of coal: metallurgical or coking black bituminous coal; thermal black bituminous coal; and lignite or brown coal. These three types of coal have different uses and are associated primarily with different regions. Lignite is primarily mined in the LaTrobe Valley of Victoria, which I do not discuss significantly in the thesis, but will briefly comment upon in the conclusion. Coking coal is used in the production of steel and the highest quantities of this coal in Australia are found in the Bowen Basin of Central Queensland, including around the town of Moranbah in Central Queensland, where I spent ten months from September 2015 to July 2016. High quality black thermal coal is burned to produce electricity, and is primarily mined in the Hunter Coalfield, which

includes the town of Singleton, New South Wales, where I spent another ten months from September 2016 to July 2017.

Both the coking coal from Queensland and the thermal black coal from New South Wales are primarily exported to Asia, although a small proportion is used domestically. Therefore, these regions are significantly affected by the cyclical commodities market. Mining only expanded into these regions from the early 1970s, and the coal mining industry experienced minor booms and busts throughout the 1980s and 1990s related to the cyclical nature of global commodity markets (Cleary 2011; Pearse 2009). However, this pattern was exacerbated with a more extreme boom that came in the early 2000s largely as a result of China's accelerated economic development. The research for this thesis was conducted in the busted aftermath of this drastic mining boom.

Beginning in the early 2000s, the rising economy of China led to an increase in demand for Australia's commodities. The steel required to build China's growing cities and infrastructure required not only the iron ore which Australia had in abundance but also the coking coal required to turn this iron ore into steel, of which Australia controlled 60 per cent of global trade in 2014 (Cleary 2015). Even Australia's thermal coal saw a massive increase as an energy-hungry world continued to burn it. The 2008 Global Financial Crisis (GFC) only momentarily slowed down the booming minerals trade. It is widely held, and often repeated by my informants, that the mining boom allowed Australia to weather the GFC relatively unscathed (Krien 2017; Pearse 2009).

Throughout this period, the towns under which these minerals lie, including my two fieldsites, saw a massive increase in activity. The high prices encouraged investment

in new mines and the expansion of existing ones and saw a rush to get as much coal out

of the ground as quickly as possible in order to take advantage of these high prices.

People flocked to these towns, making their fortunes in a modern-day gold rush. As they

joined the communities around mining, demand for housing increased, prompting real

estate bubbles and forcing some long-term residents out (Cleary 2011, 2012, 2015;

Munro 2012; Pearse 2009). I will discuss these dynamics further, focusing on

Moranbah's real estate market, in chapter three.

New populations brought with them the positive and negative aspects of growth.

There was an increase in secondary economic activity but also larger numbers of single

male workers, which it was commonly explained to me, was accompanied by heightened

levels of violence, gambling, and alcohol abuse. There were greater demands on health

and social services that were not easily met. This series of outcomes has popularly been

described as Gillette Syndrome, after the town of Gillette, Wyoming. As Jessica Smith

has argued following long-term fieldwork there, such pathologizing stereotypes

underestimate the stability of lives in so-called boomtowns (Smith-Rolston 2013a). I did

not conduct research in the boom times, therefore I am not well positioned to diagnose

the mining towns as suffering from Gillette Syndrome or not. However, I do agree with

her that such pathologizing is likely to exaggerate the negative effects of demographic

change. Undeniably, however, mining towns did experience demographic changes

during the boom with a growth in population and related pressures on housing stock and

social services.

The overproduction eventually led to a drop in prices. China's growth has slowed,

and the construction phase of the boom has given way to a slower operating phase

(Cleary 2015). As a result, the once-thriving mining industry is cutting costs in a decreased price environment. The price of thermal coal dropped from a 2012 peak of around AU$200 a tonne to around AU$70 a tonne at the time of my fieldwork in 2015. Coking coal prices have dropped even more drastically, from a high of AU$480 a tonne in 2011 to AU$100 a tonne at the time of my fieldwork in 2015 (Cleary 2015). The end of the mining boom has seen substantial lay-offs and workforce casualisation with flow on effects that have seen housing prices in coal communities fall drastically, local stores closing down, families moving away, and sports and community clubs struggling to keep members and funding. It was these conditions that mining towns like Moranbah and Singleton were facing when I arrived for fieldwork. The unprecedented boom had been followed by a prolonged bust and led them to face a new set of social pressures, which I will discuss shortly.

-Moranbah, Queensland: Labour Precarity in Coking Coal Mining Town

I moved to Moranbah (see figure 0.3 overleaf) in September 2015 with an interest in the social impacts of its dependence on the coal mining industry and guided by questions about how people managed and imagined their futures in the context of such boom and bust dynamics. Because Moranbah was founded in 1971 with the express purpose of housing the employees of the nearby mines and because there is very little secondary industry in the region, most people living in Moranbah are either employed in the mines or involved in service provision to the miners or their families.

Soon after arriving, I came to learn that it was not *directly* the drop in the coal price that most affected the town, but the labour changes that are linked to such

This map, Figure 0.3 Map of Moranbah and surrounding mines (Aurizon 2018a) has been removed as the copyright is owned by another organisation.

conditions. That is, the biggest threat was not the closing down of mines or decreased

coal production, but the employment practices of the mines that mining companies

attempted to justify through the reduced price of coal. The primary concern in Moranbah

was that, in the depressed economic conditions, the community was facing the increased

casualisation of the workforce. Although this is part of a broader trend towards

individualized contracts replacing unionized collective bargaining and trade unions in the

mining industry, it took a particularly frustrating form locally through the increase in fly-

in-fly-out (FIFO) and drive-in-drive-out (DIDO) workforces. I will discuss these long-

distance commuting practices more in chapters one and two of the thesis and describe the

mutually reinforcing relationship between casualisation and long-distance commuting.

However, for now it is necessary to note that these practices are widely felt to threaten

the emplaced community, and thus they put the future of the town in question.

I refer to the community as 'emplaced' to illustrate the physical town and the

social life that exists within this relatively fixed boundary, in contrast to the long-distance

commuters who inhabit differently place-based socialities. Emplaced community is my

own phrasing. My informants would simply say 'community' when referring to the local

social life. However, their use of community served as a symbolic marker to describe a

broader set of values that included participation in social activities and a commitment to,

at least temporarily, make Moranbah into one's home (Cohen 1985:12). As I will show

throughout the thesis, this ideal 'community' drew on a range of shifting meanings

including frontier developmentalism (chapter one), union collectivism (chapter one),

physical labour (chapter three), nuclear family (chapter two), and employment provided

housing (chapter three). This concept of community also served as a particular contrast to

long-distance commuters, particularly FIFO workers, who it was assumed did not contribute or belong to the community. My use of the phrase emplaced community then, is a short hand to refer the people who variably claim to share in such normative connections to this symbolic community that is attached to Moranbah as a physical town and social entity.

Many living in Moranbah experience an increase in both the precarity of labour as well as the insecurity and vulnerability that such precarity generated for the emplaced community, particularly as fewer families chose to move to the mining town, preferring long-distance commuting (Allison 2012, 2016; Han 2018; Millar 2014, 2017; Parry 2018; Standing 2016; Stewart 2012). Because the emplaced community's life was centred on the mining industry, with very few residents having no explicit link to it, I was able to study the social impacts of the industry without needing any specific affiliation to the mining industry itself. My fieldwork here was partially bounded by the geographic limits of the town with occasional outings to other regional towns, following research participants as they travelled. I participated in numerous community activities in order to meet people with different life experiences and perspectives. These activities included those related to the local radio station, the labour unions, arts and music community groups, a local church, and an Australian Rules Football team. My main research method was participant observation in these spaces, accompanied by the development of more intimate friendships which revealed the experience of anxiety and insecurity that many faced regarding their life in the community. Occasionally such participant observation was supplemented with more formal interviews.

Because I was not directly involved with the mining industry, my relationship with the mines was through a social life built with those employed in them. One important limitation of my positionality within the community is that I was not able to observe the inner workings of the mine, and particularly engage more profoundly with those who were employed as fly-in-fly-out workers. Although I did have some interaction with long-distance commuters, these were somewhat exceptional people who actively engaged in the community groups despite their mobility. As Jessica Smith has pointed out, this is a common problem with anthropology of contemporary mining, as spaces like gated mine camps where many FIFO workers live are often closed to researchers (Smith-Rolston 2013b: 583). Therefore, my reflections on FIFO are not a study of FIFO itself, but on the perceived impact of FIFO on the town. My inability to access the mines on a regular basis means that my insights from this fieldsite derived from the perspective of those living in the community, and particularly those who are active participants in community groups and events. This enabled me to recognize the social and communal impacts of precarious labour conditions and, in particular, the tensions and insecurity that seemed to haunt the future of this mining town.

Throughout my ten months in Moranbah, I also learned more about the national context of the debate over coal in Australia. I came to understand the central role played by coal, as a broader industry, in relation to the political debate in Australia and how this national discourse shaped the sense of precarity that I began to witness in relation to changing labour relations in Moranbah.

I decided that broadening my focus would improve my research as the phenomena that I was studying were not limited to a singular location. As I described earlier, the

main issues around which the politics of coal revolved in national discourse were those of

labour and the environment, particularly climate change. Although Moranbah was an

interesting place to look at questions of labour, it was not as well-placed a location from

which to ethnographically observe the broader environmental concerns directly linked to

climate change and land-use conflicts. This is because the mines in Moranbah primarily

produce coking coal. Coking coal is used in the production of steel and is not yet

replaceable by renewable sources at scale. It, therefore, has a different relationship to the

debate about climate change to, for example, thermal coal used for electricity production.

Similarly, because there is little other industry or valuable farmland around Moranbah,

there are far fewer land-use conflicts than in other regions. I came to realize that, even if

not directly observable in Moranbah, these environmental concerns significantly shaped

the broader discourse through which people in Moranbah related to the coal industry,

particularly as they shifted the security and affective attachments to the broader industry

and raised moral and ethical dilemmas to their own particular form of pioneering

environmentalism.

Of critical importance was the debate over the opening of the nearby Galilee

Basin to thermal coal mining, and the approval of the Adani Carmichael Mine (to be

discussed further in chapter 4). The debate over whether or not this coal mining

expansion should go ahead revealed to me the existence of a strong occupational kinship,

which connected coking coal mining communities like Moranbah to the broader national

debate about the future of a generic 'coal'. This was partly about future job opportunities

in an extractive industry characterized by ever-expanding fossil fuel frontiers, but also

about belonging to a broader industry, one which is often attacked in moral terms by environmentalists without distinction to coal typologies.

-The Upper Hunter Valley: Land-Use Conflicts and Climate Concerns

Therefore, I decided that my thesis would benefit from incorporating another fieldsite. I chose to move to a thermal coal mining community that faced numerous land-use conflicts in order to engage in these other crucial and interrelated issues. Despite the important debate over the opening of the Galilee Basin to mining, there was as yet no mining or developments to observe ethnographically. Therefore, I moved to Singleton in the Upper Hunter Valley of New South Wales in September 2016 where I spent another ten months and from which the ethnography for the second section of the thesis—chapters four, five and six—is primarily drawn.

The Upper Hunter Valley, northeast of Sydney, (see figure 0.4 overleaf) is a major producer of thermal coal. Coal has been mined from the Hunter Valley since the early years of the colony. The valley is generally divided into a Lower and Upper Hunter Valley. The Lower Hunter encompasses the area with this earlier coal mining heritage; primarily underground mines. Beginning in the late 1970s coal mining moved into the Upper Hunter Valley, near the towns of Singleton and Muswellbrook. These mines were large open-cut mines, similar to those found in Moranbah. However, the Upper Hunter's proximity to Sydney, longer settler history, and more fecund soils mean that it is also home to a number of regional industries, including wineries, thoroughbred horse-breeding, and dairy farms. Because of the alternative land uses and a more diversified economy, the region is less dramatically affected by swings in the coal price than Moranbah. This diversification makes the Upper Hunter Region slightly less vulnerable

to cyclical commodity prices, but also means that there are alternative large-scale industries that lead to competition over land and a larger population that is concerned about the local environmental impact of mining on the landscape as well as coal's contribution to global climate change. The depressed price of coal when I was in the Upper Hunter Valley also meant that more people were questioning the value of the region's dependence on mining, particularly in the context of the politics of climate change. There was increasing concern that the thermal coal industry was not a reliable industry on which to peg the region's future, and calls to further diversify the economy were often heard and debated. Again, the post-boom conditions of my arrival meant that the coal industry was questioned much more openly in the Upper Hunter Valley and embedded in moralized understandings about the region's past and future.

Because of the greater diversity of livelihoods in the region, I had to position myself more directly in the coal industry in order to maintain the research focus on the commodity. I managed to negotiate access to a community outreach arm of a pro-coal industry lobbying organization which operated in the area. Although the organization with which I worked is not usually open to researchers, a common problem with studying up (Nader 1972), I managed to secure access through this local community outreach arm, which had a small office and was run primarily by a single individual. Since the local office had only recently opened and was often quiet, he seemed to welcome my company. Over time my presence meant I was introduced to a number of formal lobbyists, protagonists in mine management, local and state officials, and

This map, Figure 0.4 Map of Hunter Valley Mines (Aurizon 2018b) has been removed as the copyright is owned by another organisation.

members of the community actively involved in mining issues. This saw me invited to participate and observe most meetings and events of the group.[8]

In order to protect the anonymity of my informants, I refer to the community outreach arm as the Coal Community Conference (CCC), and the larger organization of which it was a part, as the Coal Lobby Organization (CLO). I did direct participant observation within this Coal Community Conference (CCC) which had an office in Singleton, NSW. However, I primarily used my affiliation with them to secure access and invitations to the various public meetings and events at which the coal industry interacted with the community in the broader region. My research, here, focused on community relations with the coal industry rather than the activities of the Coal Lobby Organization *per se*. Therefore, although in some sense I did 'study up' (Nader 1972) while located within a branch of the Coal Lobby Organization, the actions of the group itself are not the singular object of the research in this site. It is more accurate to say I studied *across* the relations of this group with other actors in the region, linked by the explicit connection to coal mining. I also developed relationships with the employees of the Coal Lobby Organization with whom I spent much of my time. Their moral and ethical positions further reveal the complex precariousness of lives and intergenerational relationality around coal mining in contemporary Australia, the subject of chapter four. These personal relationships, both with the coal miners in Moranbah and the coal lobbyists in the Upper Hunter Valley enabled me to see a different set of dynamics, which

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[8] I was invited to observe all meetings that were held in the Coal Community Conference room during my fieldwork, with two exceptions: one was a meeting between the local council government and the mining companies in which they negotiated payments to the local council to compensate for the use of council roads and facilities. Secondly, I was not invited to observe the meeting held regarding an accidental death that had occurred on a mine during my fieldwork.

complement existing studies of Australian extractive industry which tend to focus on mine and community conflicts (Askland 2018; Connor 2016a; Connor et al. 2009; De Rijke 2012, 2013; Sherval et al. 2018; Trigger et al. 2014). Sometimes, association with one group of people—be they community or company employees—can hinder access to another. The mining industry is notoriously tight-lipped and weary of 'infiltration' by environmentalists. If I had been involved with any Australian environmental groups, I would unlikely have been granted access within this pro-coal organization.[9]

Thus, my fortuitous access enabled me to focus on those who are quite directly involved in mining, as miners themselves, family members of miners, or management and lobbyists. This of course means that my ethnographic empathy rests with those who could be seen as more deeply implicated in the damaging effects of anthropogenic climate change. In the course of my fieldwork, my rapport, particularly with pro-coal lobbyists, often merged with complicity. Drawing on Geertz's famous reflections which begin his "Deep Play: Notes on the Balinese Cockfight" (1972), in which his serendipitous complicity with the illegal cockfight establishes his rapport in the community, George Marcus calls complicity rapport's "evil twin" (1997: 87) or more ethically troubling "shadow" (104). In the context of my fieldwork, my rapport with my informants, particularly pro-coal lobbyists, often led to surprising insights that were enabled through my complicity with their various projects. This partially mirrored the process of building rapport through which shared experiences and intimate encounters during fieldwork brought our understandings closer together and enabled our

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[9] When I came in for my first meeting with the pro-coal lobbyist who would eventually grant me access to the Coal Community Conference, he had everything he could find on the internet about me printed out and sitting on the table.

communication across difference. However, more profoundly, my insights came from recognizing that we already had many overlaps in understandings and that my informants were not such extreme others. These insights mirror what Marcus finds, that complicity takes a different form and meaning in contemporary multi-sited fieldwork. In this context, complicity has its own particular methodological benefits, particularly when applied to studies of what he terms "vile informants" (1997: 104). The revelations come as "unexpected affinity/complicity—more cognitive than ethical" develops between researcher and informants (104). My "unexpected affinities" with pro-coal lobbyists or even coal miners do not discount my concern about anthropogenic climate change. Quite the contrary, the empathy I developed with my informants informed the political project of this thesis, that is to break the false political binaries of 'jobs versus the environment' which frame the moral and ethical debates on Australian coal. I hope to show in this thesis how closer attention to shared concerns and mutual understandings can lead to a more successful political position which reveals the inconsistencies, gaps, and thus opportunities for resistance to Anthropocenic commodification.

These two fieldsites are not intended to yield a direct comparison. Rather I hope to build a framework for understanding the complexity of issues at play for the Australian coal industry and its associated communities as a contribution to a much larger project of a grounded anthropology of the Anthropocene, which I will outline further below. My methodology was guided by an attempt to understand a resource assemblage in a way that takes seriously the materiality of coal, as seen in the different issues deriving from each type of coal and its associated geography, but which does not see this materiality as over-

determining but reflects the agentive lives and desires of those entwined in it (cf. Richardson and Weszkalnys 2014).

In thinking through the linkages between these two fieldsites, I came to recognize that my informants were connected by an affective and discursive sense of precarity. In the case of Moranbah, this precarity was most directly articulated in terms of the employment practices of the mining industry and the particular effects of such workforce casualisation and labour dislocation on the emplaced community. However, as I will show, this also threatened a particular form of environmentalism that derived from pioneering self-conceptions. In the case of the Upper Hunter Valley, precarity—also linked to such workforce conditions—engaged more profoundly with issues of landscape destruction and environmental awareness including climate change as the future of the thermal coal industry is questioned. A sense of insecurity about the future of those who had built their lives in and around the coal industry was palpable in both sites, which helped me to recognize a shared condition of the Anthropocene as it is experienced in Australian coal mining towns.

This is a rather different perspective to much of the previous anthropological work on the Anthropocene, particularly climate change, which has focused on those communities most vulnerable and often least responsible for environmental damage (Baer and Singer 2018; Crate 2008; Crate and Nuttall 2009). It may seem odd to argue that Australian coal miners—who are relatively high paid, living in a nation with a reasonable social security system, exceptional public health care, and the economic potential to avoid the worst and most immediate threats of environmental disaster—should be deemed precarious in the context of the global environmental crisis. However, the

condition of precarity, particularly as an experienced and existential condition of uncertainty (Butler 2009), seems to underlie the experience of living in the Anthropocene even if vulnerabilities are differentially distributed. Further, the political realities of differential responsibility and vulnerability for environmental damage means that critical scholarly attention to sites like Australia is crucial. Understanding the inner workings of the Anthropocene may also inspire a pragmatic politics of resistance.

This thesis is thus inspired by the potential for the Anthropocene as an analytical concept which connects empirically intertwined phenomena but which places the environmental crisis as central in the working and un-working of the world today. However, guided by my experiences in the field, my perspective is that the conditions that created the crisis we now term the Anthropocene are not inevitable, nor are they uncontested outcomes of ontology. Rather, they are made and reinforced despite contestation through the complex assemblage that momentarily stabilises relations of power, regimes of value, and material infrastructures, and that these conditions are primarily experienced as layers of precarity. Following several of the elements of this assemblage and layers of precarity in different locations guides the organization of this thesis. I will now describe my theoretical perspective on precarity and show how this offers an opening for a theory of the experienced Anthropocene as one of precarity of labour and livelihoods that are inherently intertwined in the threatened planetary future.

Layers of Precarity in the Anthropocene

This thesis is inspired by works which call for increased attention to the role of affect in the workings of contemporary capitalism (Bear et al. 2015; Berlant 2011; Narotzky and

Besnier 2014; Narotzky 2018; Weszkalnys 2016). Precarity, in particular, has arisen as an analytic that connects the socio-economic changes of late capitalism, especially post-Fordist patterns of employment, to the affective dimensions of life in this context (Allison 2012; Han 2018; Hinkson 2017; Millar 2014; Parry 2018; Puar 2012; Stewart 2012).

Precarity is linked to the increased casualisation of labour and the replacement of long-term employment with short-term contracts, alongside the loss of social provisions from the state through neoliberal and austerity measures. These changes most directly relate to post-Fordist societies because, as many have pointed out, precarity is not a new condition for much of the world's population, particularly in the Global South (Han 2018; Harvey and Krohn-Hansen 2018; Millar 2014; Parry 2018). Standing (2016) has identified 'the precariat' as an emerging class which shares some characteristics of Marx's lumpenproletariat under new conditions (see also Han 2018). However, rather than following Standing's argument that precarity has led to the emergence of a new class, this thesis uses precarity as a broader sociological category (Parry 2018) and analytic that links the political economic shifts of late-capitalism to the affective state of how these changes are "physically sensed, ordinarily experienced, and socially embodied" (Allison 2012: 350).

The primary affective consequence of precarious labour is the loss of futurity, in which the present "no longer segues into the future that one was once encouraged to imagine" (Bruce O'Neil in Shaw et al. 2016: np). Precarity derives from the loss of progress narratives, as the future becomes increasingly difficult to imagine without such guiding stories. Precarity is thus a presentist perspective which highlights the experience of these socio-economic changes, drawing from the nostalgia for—or "ghostly presence"

of—stable Fordist employment (Muehlebach 2011) and the evacuation of near futures (Guyer 2007). The concept intends to connect the precariousness of labour to the generalized precariousness of life where security arises not just through employment but also the flow-on questions about "what makes a life worth living" (Narotzky and Besnier 2014: S14). These questions are reflected in the experience of alienation and commodification of labour, nature, and money (Burawoy 2010; Polanyi 2001 [1944]). As I noted earlier, Australia has followed the trajectory of global neoliberalism in which social protections and particularly labour union collective bargaining has been rolled back in concert with the opening of the economy to global finance and the increase in coal exports over energy-intensive industrialisation. The growing precariousness of miners derives from the mining industry no longer offering secure or stable futures, both through the casualisation of labour and through the threat that the increasing global concern with climate change, and coal's contributing role, mean for the future of the industry. Precarity as an analytic connects the socio-economic and environmental conditions of late capitalism with the affective experience of insecurity that derives from these conditions. This is a critical insight, but it is only one outcome of the dissolution of modernist imaginaries.

The Anthropocene reflects another critical awareness of the contradictions of modernist fantasy through the lens of society/nature entanglements. It may be seen as an aspect of the existential precariousness that Butler describes as a universal experience deriving from the awareness of unavoidable interdependencies of the human condition (2009). However, Anthropocenic precarity also has socio-economic dimensions that result in vulnerability being unequally distributed. This is evident in industries such as

coal mining. Here, the livelihoods of miners are not only affected by changing forms of precarious labour which threaten the security of their livelihoods, but the very product of their labour also threatens the possibility of life itself on a planetary scale (Weston 2012). This paradox is further complicated through the double bind in which defending the mining industry against moralized attack, including that derived from climate change activism, disables miners' ability to effectively fight against their increased labour precarity. Political actions to address the planetary crisis would only further threaten their livelihoods. These paradoxes highlight that it is crucial to approach to the Anthropocene in a way that takes seriously the everyday contradictions and tensions of life within it.

Towards an Experienced Anthropology of the Anthropocene

The Anthropocene term was proposed by climate scientists Paul Crutzen and Eugene Stoermer (2000) as a designation for a new epoch that is based on the observation that human activity has impacted the earth at such a scale as to be geologically significant. Anthropogenic climate change through burning fossil fuels is a major contributor, but it is only part of this impact which includes nuclear contamination, loss of biodiversity, increased erosion from deforestation, other pollutants and landscape destruction (Crutzen and Stoermer 2000; Crutzen 2002). However, the Anthropocene as a concept has been taken up beyond the earth sciences where it was first formulated and has expanded into the humanities and social sciences where it has led to a reenergizing of thinking beyond the society/nature division. Latour has termed the prominence of the Anthropocene in popular discourse a gift for anthropology through its shared Greek root and reflection of longstanding anthropological concerns about the mutuality of human and environmental

relations (2017). The Anthropocene concept is intended to reveal both humanity's immense power to impact the earth as well as our dependence and vulnerability to the earth's vagaries.

It lays bare our inseparable entanglement with what we have falsely defined as a distinct realm of nature (Latour 2013). Through its refiguring of modernity's foundational Descartian separation of nature and society, the Anthropocene speaks to the feebleness of longstanding theories of modernization (Barry and Maslin 2016; Bauer and Ellis 2018). It disrupts modernity's stories of endless growth and history of progress, civilization, development, and capitalism, for the environment can no longer be seen as a mere boundless resource or neutral ground on which human action unfolds (Latour 1993). This affects both our understandings of nature's agency (Latour 2014), and our understanding of human history (Chakrabarty 2009).

As a result of the perceived contemporary crisis of modernity, a number of post-humanist or new materialist perspectives have arisen which attempt to offer alternatives to the nature-society dualism that is said to fundamentally characterise the modernist ontology. Donna Haraway proposes the term Chthulucene as a way forward in a speculative project of what she terms tentacular thinking through multi-species assemblage (Haraway 2016). Povinelli discusses the problematics of what she terms geoontologies (Povinelli 2016) which revolve around the binaries of life and non-life. She proposes that alternative ways of thinking through the crisis must refuse such distinctions. Partially drawing on indigenous ontologies as their inspiration, these perspectives on the Anthropocene have linked Anthropocene anthropology to the ontological turn in the discipline particularly those which emphasize society/nature

relationalities (Blaser 2009, 2010; de la Cadena 2010; Descola 1996; Escobar 2018; Kohn 2013, 2015). I recognize that bringing attention to different ontologies is a crucial political project, particularly in relation to the forms of society/nature entanglements and mutualities that exist within indigenous communities despite modernity's violent erasures, because they may present inspiration for much needed alternatives to the Anthropocene's foundational false binaries. Therefore, I disagree with Hornborg that such scholars are "dithering while the planet burns" (2017b; see also Bessire and Bond 2014). However, I understand his frustration with the way such perspectives overshadow the political contingencies and alternatives that exist within ontologically 'modern' populations—those that maintain a Descartian separation between mind/body and society/nature.

The modernist ontology does offer affordances for the Anthropocene, setting the ontological divisions of society/nature or life/nonlife (Povinelli 2016) on which commodification and extraction rests. However the conditions of the Anthropocene also relied on specific configurations of power and fundamentally asymmetrical agencies within entangled relations. Thus I agree with those who emphasise that, despite the political motivation of the posthumanist approach, it remains problematic for not disentangling differentiated responsibilities within an empirically entangled, historically crafted, and asymmetrical assemblage of society and nature relations (Bauer and Ellis 2018; Fortun 2014; Hornborg 2017a, 2017b; Malm and Hornborg 2014). An ontological perspective cannot sufficiently attend to the contingent political formations which reproduce the forms of Anthropocenic precariousness in which people live in the present,

and thus take seriously issues like labour into its framework (Bessire and Bond 2014; Bonneuil and Fressoz 2016).

Drawing on my fieldwork experience, I worry that the claim that hope lies exclusively in elevating alternative ontologies implies a direct causation between modernist ontologies and environmental destruction, which is not so empirically or philosophically simple. Such perspectives seem to imply a monolithic and totalizing vision of the Anthropocene which ignores the numerous inconsistencies, gaps and tensions that exist and thus may offer opportunities for alternatives even within modernist ontologies. As Hinkson argues, "in effectively evacuating structure, history, power, and subjectivity, network and ontology immerse us in the instabilities of the status quo rather than helping us understand how we—collectively and distinctively—have come, and are coming, to be, here" (Hinkson 2017: 59).

Thus, my project differs quite markedly from such ontological perspectives. The motivation behind such projects is to offer ways of thinking out of the Anthropocene, which requires new concepts and ontological inspiration. By contrast, my objective in this thesis is to interrogate the lived experience of the Anthropocene for those already deeply entangled in its conditions, and to pay attention to already existing political contests within it.

I take particular inspiration in this regard from the work of feminist analyses of capitalism (Bear et al. 2015; Empson 2018; Gibson-Graham 2006 [1996]). They emphasize that, despite capitalism's intrusion into life, non-capitalist forms of value and relations have continued to exist and in fact are crucial to capitalist value creation. I am particularly indebted to Gibson-Graham's (2006 [1996]) thinking on capitalocentrism,

which they argue is the discursive and political process which continually defines all forms of economic and social life in relation to capitalism. Much like their goal of "theorizing capitalism without representing dominance as a natural and inevitable feature of its being," (ibid) I hope to represent the Anthropocene not as a definitionally all-encompassing and inevitable outcome of modernist ontology with its binary understandings of nature/society. Rather my approach to the Anthropocene is to show that despite the affordances of modern ontology, more attention should be put on the actually existing relations and negotiations that continue to shape the encounter between nature and society.

This is also similar to numerous anthropological studies which show, despite the universalizing goal of development, modernity, or globalization these projects are always incomplete, inconsistent and affected by the contextual contingencies of social life (Comaroff and Comaroff 1993; Escobar 1995; Ferguson 1990, 1999; Nash 1993 [1979]; Tsing 2000, 2005). In an approach to the Anthropocene, we should avoid assuming a universal coherence and totalizing power of such an ontological perspective and take inspiration from our critical untangling of these other meta-narratives.

My perspective here is partially reflected in approaches to the Anthropocene that argue that not *all* humans or forms of social organization are equally responsible for the contemporary crisis. In this view, the root 'anthropos' to describe the contemporary crisis is deemed inadequate. Nomenclatures such as the Plantationocene, emphasizing the alienation of nature and labour through plantation logics (Haraway 2015) or the Capitalocene which places responsibility within the long durée of imperial capitalism (Moore 2017a, 2017b) have been proposed as alternatives to the Anthropocene. I agree

with these perspectives of differentiated responsibility and share the interest in political economic conditions through which the contemporary crisis is produced. However, these framings operate through differentiating responsibility at the world-system level and still give insufficient attention to the instability and contingency of the local relations which compose abstractions like capitalism and the always incomplete processes of commodification and alienation.

Therefore, I am less concerned with the terminology used. Instead, I argue that the most politically expedient and empirically accurate perspective for an anthropology of the Anthropocene is to recognize the contingency of the Anthropocene even within the affordances of modernist ontology and extractive capitalism. The contemporary crisis of the environment and the human relationships entangled within it are a result of political choices which have been enabled through specific acts and imaginations. They are not the inevitable outcomes of foundational ontological dualisms, but the outcome of discursive and material operations of power which draw from and reproduce them. This does not mean anthropology should not feel a renewed sense of urgency or scholarly commitment to the reinvigorating of the society/nature entanglement that the Anthropocene concept has triggered. Quite the contrary; despite my discomfort with the post-humanist turn that much of the prominent anthropology of the Anthropocene has taken, I am inspired by the potential for the Anthropocene concept to work as a framing which connects seemingly disparate, although empirically intertwined, phenomena, particularly for placing the environmental crisis as central in the making and un-making of the world today. Therefore, despite my criticisms, I do not want to abandon the concept. Through its potential to reveal the mutuality of the crisis of the environment

with the crisis of modernity, the Anthropocene speaks to the experienced dissolution of progressive and modernist futures and the resultant layers of precarity as locally differentiated but global conditions.

The connection of labour precarity to a broader Anthropocenic precarity is still relatively underdeveloped, although some scholars are beginning to point out the analytical overlap (Hinkson 2017; Tsing 2015; Weston 2012). As Judith Butler writes, "we have to rethink the human in light of precarity, showing that there is no human without those networks of life within which human life is but one sort of life" (Butler in Puar 2012: 173). Weston (2012) has proposed the phrase 'political ecologies of the precarious' as a step towards this awareness. Anna Tsing has most directly thought through precarity as a foundational analytic for the dual crisis of the contemporary moment which she describes as "the fate of the earth" and the "contradictions of postwar development" (Tsing 2015: 3). Australia's recent political turmoil and the resultant insecurities clearly derive from such a dual crisis. The loss of modernist imaginaries of progressive development are upset in a condition of dependence on commodity exports in a world which may no longer want them, while simultaneously these very exports threaten the Australian, and indeed the planet's, environment to such a degree as to call any such future into question.

Tsing's elaboration is most pertinent to the perspective through which I approach precarity as an analytic that highlights the connections between the fragility of capitalist modernity's failures alongside the environmental impacts it has crafted threatening life itself. However, rather than taking this as a call to look at this indeterminacy as productive of life in ruins as Tsing does, this thesis focuses on the grounded experiences

of change and the differentiated responsibilities and vulnerabilities. It does so not only at the level of political economy or post-humanist entanglements but also at the level of complex configurations of extractive capitalism and commodification, including the frictions, inconsistencies, and affects that are intrinsic to its maintenance (Tsing 2005; Weszkalnys 2016). Thus while recognizing the shared and global conditions of both post-Fordist precarity and the Anthropocene, I follow an ethnographic perspective that notices the "textures of vulnerability" (Han 2018: 341) that anthropocenic precarity presents for my research participants.

I am not alone in my desire to focus an anthropology of the Anthropocene on grounded experiences. There is growing recognition of the need to study the Anthropocene as a multi-scalar phenomenon, which requires grounded analysis alongside global awareness (Braun et al. 2015; Gibson-Graham 2011; Hecht 2018: 114; Ogden et al. 2013). As Braun at al. argue, "the great irony in much of the Anthropocene research is that it does not attend to the lived everydays which constitute it, nor to social differences like sex, gender, race, class, and nationality, even as it puts humans at the center of the analysis" (Braun et al. 2015: np). This is the benefit of precarity as an analytic for studying the Anthropocene ethnographically. It allows for a focus on the presentist experience of multi-scalar crisis and the attendant social, political, and affective dimensions of global dynamics without assuming either utopia or apocalypse.

Such a perspective also offers opportunities for balancing the emphasis on the 'suffering subject' with an anthropology of the good. As Robbins (2013) has identified, anthropology seems to have moved from its heritage in the savage slot (Trouillot 2003) to the suffering slot or, as Ortner (2016) puts it, the spread of neoliberalism has led to a

focus on 'dark anthropology' which captures oppression and inequality. Although Robbins proposes an anthropology of the good, which focuses on morality and ethics to replace the suffering subject (2013), I prefer Ortner's argument that one meta-focus should not be replaced by another, but a balance between the two presents the best way forward in anthropology. Bringing attention to the shared conditions of neoliberal suffering has a potential power in that it highlights connection and similarities across difference through shared human vulnerability (Robbins 2013), but this suffering is always accompanied by resistance and gaps and is unevenly distributed.

This thesis follows various elements of this dark anthropology through highlighting the violences of late industrialism (Fortun 2012) and post-Fordism (Allison 2012) in order to draw out how the connections of precarity which, although unevenly distributed, are shared in Anthropocenic conditions. This serves as a particular framing which highlights the interconnections between precarious labour and insecure livelihoods with the precarious environment (Tsing 2015; Weston 2012). This attempts to draw out connections and reach across political divides of a rhetoric that pits 'jobs versus the environment'. However, I also show how this shared suffering is unevenly distributed. Attention to morality and ethics, and the divergent visons of the past and future they draw upon, work to configure the distributions of such suffering (Das 2012; Fassin 2014; Keane 2014; Laidlaw 2013; Lambek 2010; Stafford 2013; Zigon 2009).

As my thesis fits snugly into these broad diagnoses of recent anthropology that Robbins (2013) and Ortner (2016) describe, it shows that an anthropology of the experienced Anthropocene is far from a project that anthropology must start anew. I draw from the expertise of many who studied these dynamics before me even though they

often do not directly refer to the Anthropocene (cf. Ferguson 1999; Nash 1993[1979]; Scott 2010; Smith-Rolston 2014). Thus although this thesis aims to be an anthropology of the experienced Anthropocene it draws primarily from, and is more reminiscent of, these ethnographic approaches than of the experimental forms of ethnographic writing that have come to characterize much of Anthropocenic anthropology (Haraway 2016; Howe and Pandion 2016; Tsing 2015; Tsing et al. 2017).

Organization of the Thesis

The thesis is divided into two sections. The first section focuses on Moranbah and the second on the Upper Hunter Valley. The first two chapters of the thesis focus on the increasing precarity of labour in Moranbah, Queensland, and the social effects that such labour arrangements generate. Chapter one describes the dislocation of labour (Harvey and Krohn-Hansen 2018), in which relationships between labour, place, and capital are refigured in Anthropocenic conditions, drawing from a number of anthropological studies on extractive projects and natural resources, as "the point at which labor and nature are brought together" (Ferry and Limbert 2008: 8). This chapter describes how the particular configurations of the commodification of labour, land, and money have played out in Moranbah. The chapter traces how the material affordances provided by the relative geographic isolation of Moranbah have been utilized in the original dispossession of indigenous Australians. They also underwrote the founding of the community through pioneer imaginations and associated environmental relations and, in the contemporary Anthropocenic conditions, have encouraged disembedded labour through the use of fly-in-fly-out (FIFO) workforces and new formulations of alienation through modular infrastructures of contemporary extractive capitalism (Appel 2012; Ferguson 2005).

Chapter two focuses on the temporal elements of labour precarity in Moranbah and, particularly, on the gendered effects of shift work in the mining community. This chapter describes how the new temporal work regimes have gendered effects, which shift social relations, particularly for the heteronormative household. However, rather than this being a unidirectional process through which the organization of labour determines household organization, my ethnography reveals how the affects, desires, and life projects of families and particularly those of women, feed back into the form that capitalism takes thus complicating arguments about the feminisation of labour in Anthropocenic precarity. Chapters three and four look at issues of moralities and contested ethics, particularly the way in which moral and ethical accusations and counter-accusations fail to undermine the Anthropocenic structures from which they derive. Chapter three describes the speculative nature of extractive industry and how it has shifted understandings of legitimate accumulation. The coal miner's reputation has shifted from that of the working-class labourer into that of a so-called cashed-up-bogan (CUB), a class-based distinction that emphasizes greed, excessive consumption, and environmental destruction. This is compared with the example of a failed real estate speculator in Moranbah, Queensland, in order to analyse how local accusations of greed and associated *schadenfreude* work to obscure the structural inequalities and larger processes of Anthropocenic precarity through pathologizing structural failure.

Chapter four continues the focus on morality but starts the second section of the thesis, which draws on the fieldwork conducted in the Upper Hunter Valley. It outlines my fieldsite within the CCC and describes how the coal industry is increasingly engaged in the moralized framing of coal mining. The chapter describes the ordinary ethics

through which pro-coal lobbyists relate to this moralized landscape. It argues that their complicity with the industry is produced not through insufficient integration of moral concerns about climate change, but through particular everyday interpersonal relations. It thus offers an analysis of the everyday and ordinary production of complicity with the precarious Anthropocene

Chapter five describes how, in contrast to Moranbah, the material affordances of the Upper Hunter Valley landscape create conflict between competing land-uses. This chapter focuses on the planning processes which attempt to manage competing visions of the region's past and future. The chapter describes how complex affective and regional values are made legible through infrastructures of planning and public consultation. Through the example of a planning hearing for the Drayton South Coal Mine, the chapter shows how planning and public consultations both silence and translate affect into economic rationalities that are legible to the planning system through particular configurations of scale. Through defining the boundaries of the planning process as the regional economy, the concept of the region allowed the integration of historical place-based attachments to an imagined rurality, encouraging appeals to locality over globality. Although this allowed affective attachments to place to filter into the economic privileging of the planning process, it discounted the appeals by environmentalists to scale up the impacts of an individual mine to its contributions to global climate change. Chapter six follows the debate over land use in the Upper Hunter Valley but focuses on the affective dimensions of already mined landscapes. Engaging in the Anthropocenic attention to blasted landscapes (Kirksey et al. 2013), the chapter describes the complex ambiguity of the mine final voids as empty landscapes and ruins. The chapter introduces

the concept of solastalgia (Albrecht 2005; Albrecht et al. 2007) that was first coined to describe the melancholy of landscapes lost to open-cut mining in the Upper Hunter Valley. Although some see the potential for life in capitalist ruins (Tsing 2015), the potentiality that these ruins present has become a site for continued human hubris and capitalist imaginations that serve the interest of the pro-coal lobby. The thesis concludes with a brief summary of the preceding argument and points to further directions for study that emerge from this research.

PART ONE: Precarious Labour and Livelihoods in Moranbah, Queensland

Figure 1.1 Labour Day Parade in Moranbah, Queensland. Young girl upon her father's shoulders wearing a t-shirt of the main mining union, the CFMEU, that reads, "Future Unionist" (Photograph by author)

INTRODUCTION TO MORANBAH:

Driving was a constant theme of my fieldwork in Moranbah. The town itself is relatively compact with tightly packed houses along cul-de-sacs branching out from a central thoroughfare which hosted the local government offices, the town square shopping centre, two pubs, large supermarket, two primary schools and a secondary school. This, for the most part, satisfied the immediate needs of its 8,333 residents (Australian Bureau of Statistics 2016). But living in Moranbah also meant driving to and from surrounding towns at regular intervals.

For myself and many local residents, the coastal town of Mackay—a two-and-a-half hour drive east along the Peak Downs Highway—is a relatively common destination for a weekend trip to the shopping mall, cinema, or an away sport game. The town of Clermont, an hour-and-a half southwest, welcomes visitors for rural pursuits including its rodeo and local show. The landscape is vast, dry, and dusty. There are few landmarks to pass the distance along these drives, and weak radio and cell reception means most of the trip is accompanied by familiar and overplayed CDs or conversations which eventually lull to blend with the hum of wheels on hot asphalt. While drives away often meant blinding morning sun, drives returning to Moranbah were often only lit by the moon and stars.

The darkness was calming and beautiful, and I would occasionally pull off to the side of the road on these trips to stretch my legs and awaken my dreary eyes by looking up at the beauty of the stars. Back in the car for the final leg of the journey, light again marked a relief from the road. The first sign that you were almost done the drive was a glow that slowly appeared on the horizon. It represented the end of the journey and a

waiting bed. For as you approached the light, it took shape and revealed itself to be the lights of a coal mine, particularly the washplant and conveyor belts that transferred and processed the coal on the 24-hour open cut mine just a few kilometres east of Moranbah.

I was not alone in experiencing this emotional warmth that accompanied coming home to Moranbah that the mining lights triggered. Returning from the Clermont Rodeo, a German mine engineer, Russell, who had lived in Moranbah for several years saw the lights up ahead—this time the mine a few kilometres north of Moranbah, and said: "It's strange, but I just love those lights."

While the lights still felt significant, it wasn't such a simple symbol for everyone. Another time, driving home from a football game in Mackay with a friend Clara—an electrical apprentice at the Moranbah North underground mine—I looked at the lights and broke the silence in our car, "We're almost there, I see the lights." She responded, "Oh those lights. Sometimes I hate them; sometimes I love them". I asked her, "Don't they make you feel relieved that you're almost home?" She responded, "Well sort of. I mean, I was born in Moranbah. But my parents live in Mackay now. My sister lives in Moranbah though." She paused, "so it's a little bit like home. But it also kind of feels like going to work."

To those who have left Moranbah for a daytrip to a football match or to attend a local rodeo, coming back to Moranbah is a peaceful return to a community, a home, an oasis in the vast dry landscape. To others it is the beginning of an intense work week away from the towns and community that they call home. For people like Clara, the spatial organization of labour in the coal regions means that it is both and neither

completely. These short conversations encapsulated some of the tensions of what Moranbah represents to the different people who live and work there.

Coal mining is integral to life here. The region produces more than half of Queensland's saleable coal, approximately 90 million tonnes annually (Queensland Government Data 2018) coming from 26 active coal mines. The coal is transported by rail, loaded directly from conveyor belts leaving the wash plants on the mine sites and into trains which carry the coal to the port of Hay Point, just south of Mackay. About a dozen of these mines are within a reasonable commuting distance (under an hour's drive) from Moranbah. To name a few: just kilometres north of town is Anglo-American's Moranbah North underground mine, and few kilometres further BHP in partnership with Mitsubishi (under the name BMA) owns the Goonyella and Riverside mines. To the South is the sprawling Caval Ridge Mine, then Peak Downs, followed by Saraji, all large open cuts run by BMA. The closest of these mines can be seen from the small hills in town, but mining's presence extends far beyond the visibility of the mines themselves.

Coal is practically and symbolically woven into the social fabric. The original pub is called the Black Nugget Hotel, the rugby team is the Moranbah Miners and the entrance to town is marked by a large dragline bucket (the largest piece of mining machinery) painted red that reads "Welcome to Moranbah" (See figure 1.2). During the day most of the population is wearing hi-vis, neon collared shirts that are the standardized uniforms of the mines. The yellow reflective stripe and lettering on the white utility vehicles parked in the town's driveways reveal which mine or contractor employs members of that household. When signing up for the local 24-hour gym, I was told the busiest hours were between 3 AM and 6 AM, before the coming day shifts. Perhaps most

ominously, the mines produce beautiful sunsets of vibrant pinks and reds. It is said that the light is refracted just right through the coal dust and diesel exhaust which floats through the air. This dust also constantly lands on white sheets drying in the waning summer sun, turning them a dull grey.

Figure 1.2: Red Dragline bucket that marks the entrance to Moranbah (Photograph by author).

With little alternative industry around, there are very few people who are here without at least one family member being employed in the mines or in a closely related service industry. Moranbah, the town itself, would not exist if not for the mines constructed in the 1970s. But now it is also much more than a dormitory for these mines, it is home and community for many. I will soon describe in more detail the pioneering drive that motivated the original residents to invest their time and energy in constructing

a strong emplaced community and the relationship to nature it engendered. But for now, these early residents constructed a rather idealized small community with sport, clubs, and strong social traditions like the debutante ball and annual garden party. These went to building strong bonds to the town itself and the community that lived there, beyond the wages that drew people here in the first place. However, the conditions of the town's deep entanglement and dependence on the mines around it mean that it also experiences, rather directly, the flow-on effects of global commodity prices and thus the fluctuating demand for locals' labour.

The booms and busts of the commodity cycle are built into the town's design itself, as the architecture of houses reveals the date of the boom that built them. The original houses built by the American Utah Development Company in the early 1970s reflect the imported American class-based distinctions, as regular workers received low-set houses, and supervisors lived in the raised high-set houses next door. Moving outwards from the original town centre, the most recent booms appear on the edges with pre-fabricated rectangular structures stacked on top of each other to form townhouses that remind one more of Lego constructions than the aesthetics of idealized country Australian life (see figure 1.3). Mining booms, particularly the most recent 2008-2012, saw massive influxes of temporary workers and although the busts saw many leave again, the cost cuts that accompany busts eat into the permanent residents' entitlements as well. Contract and casual jobs are increasingly becoming the new normal.

These dynamics between a local community with strong affective connections to the town and a more mobile fluctuating workforce, lead to a tension in Moranbah that I felt early on. However, it took me many months to begin to think through it analytically. I

came to think of Moranbah as two ideal types, with many residents existing somewhere within a spectrum even as they rhetorically and morally clung to one side of it. There are some who relate to Moranbah as home, a community, and as full of meaning, attachment, and belonging. For others it is a place of work, a fully alienated extractive enclave with an airport that one can literally fly into and fly out of returning to homes 1,000 kilometres away in urban centres of Brisbane or Cairns. While there are certainly exemplars who fit these two ideal types, the majority of the population exists somewhere in between, as Clara's reflection on the mine lights signals. Yet the moral ideal is still the conceptualization of Moranbah as home and community. In reality, however, this ideal is becoming less and less achievable.

Figure 1.3: Homes constructed in the recent boom, approximately 2011, on the eastern edge of Moranbah (Photograph by author).

This is primarily due to the changing employment conditions that coal miners in the region face. As I will soon describe in substantially more detail, the community is facing increased workforce casualization and more jobs are going to workers who commute long-distance (fly-in-fly-out or drive-in-drive-out) rather than living locally.[10] Thus, the ideal community form is no longer supported by the employment conditions or company policy that once nurtured this community.

A long-time resident and beloved local primary school teacher once told me, "The mines use to be really supportive of the schools in the earlier years… But after about 1998, the mines became tighter with their money and during the most recent boom, money didn't come into the community from the mines in the same way it did in the past at all." She summarized the change: "That era I think is gone. Now it's just not community driven. With all the fly in and out, it's a job now, it's not a community."

Yet the community that was constructed does remain, even as people lament that it is suffering. Although now struggling to find volunteers and seeing decreased participation numbers in community sports and clubs, most activities are still going. A Christmas light competition sees the town's electrical engineering skills on full display as synchronized lights and music shows appear on competitive homes. Every year on Christmas Eve morning, Santa drives around the neighbourhood in the 40-degree Celsius heat delivering presents to children. There is hardly a sport that is not available. In addition to the classics of rugby, Australian rules football, soccer, and netball, there is also a large gymnastics complex, Olympic size swimming pool, handball courts and

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[10] The Peak Down's Highway is full of this traffic. Tired miners driving home after long working weeks make this a remarkably dangerous road. Clara was actually hit and seriously injured when a car driven by a DIDO miner who had fallen asleep at the wheel swerved into her car a year after I had left the field.

martial arts centre. Social clubs include the local radio station, theatre group, arts council, and the wine appreciation society. Kids ride their bicycles freely to and from school. Some hang at the skate park in the afternoons, others head to tennis or guitar lessons. I often thought, what a great place this would be to raise a family.

Then again sometimes Moranbah felt like this sunny picture was all a façade. A woman who worked as a youth social worker asked me if I had heard about the "Moranbah Starter Pack"? She explained, "a bottle of Bundy rum and antidepressants."[11] I began to hear more about the 'two-year plan' a common strategy of couples who decided to bring their families to Moranbah for two years, working and saving their wage before returning with house deposits to then settle in coastal towns. However, even these short two years weren't always attainable. I attended a small evangelical church every Sunday, and I once counted four weeks in a row where the service ended with someone being called to the front of the church to receive a goodbye from the congregation (which rarely numbered more than 30 attendees). Lay-offs and whispers of who would be next fuelled the gossiping chatter in the grocery store aisles. A friend explained: "Jobs felt so safe before, now it's like no one is safe. There are always rumours of coming redundancies going around. We're always holding our breath because we don't know where we're going to end up."

The work camps and the temporary accommodation on the edges of town began to appear as ominous warnings of what was to become of Moranbah. The newer of these camps or 'accommodation villages' were like a small motel. They were a few stories high with balconies where men in their hi-vis looked out over town while smoking a cigarette,

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[11] "Bundy" or Bundaberg Rum is a brand of rum produced in Queensland and a popular spirit in Moranbah.

sometimes on the phone to family on the coast. They ate their meals in the canteen within the same building, only rarely venturing out of the complex beyond going to work. Large buses were parked outside which transported them to the nearby mines and further back to homes in Mackay for those who chose not to drive their own vehicles or who had fatigue requirements that prohibited them from doing so. Older versions of these camps were filled with rows of 'dongas,' or trailers consisting of a single studio room and small attached bathroom where workers slept during their working weeks. Some of these camps were right on the edge of town, others further hidden from view behind gates closer to the mines themselves. Some were privately run filled with employees working for various contractors, other were directly for BMA employees. These camps and the largely casually employed single men that filled them represented the Moranbah that existed for work and little else.

However, this was complicated when thinking about the boom and the bust. These men were associated with both dynamics. The boom saw massive influxes of them, threatening the small town feel that many loved about Moranbah. Fear spread about what moral pathologies these single men might bring with them. And yet, in the bust, they are a threat again. They are accused of taking the jobs that long-term residents committed to life in the community are deemed most deserving.

At a reunion of retired coal miners who worked at the original Peak Downs Mine, which opened in 1972, I had the pleasure of meeting George Batchelor who has since passed away. In 1969, he helped to cut the fence of the original cattle property that became Moranbah. When the town was established, he owned the first store, a small general store, which he lived above with his four children: two boys and two girls.

Although they had the first house in town, there were no stairs. They just had a ladder that they used to get up to the house. His daughter Vicky told me, "It was great to see a town grow from dust to what it is now." Her kids, George's grandchildren, are still living in Moranbah with their own families. She explained further:

> We feel like we own the place, but it's different now. Back then everybody knew everybody and we worked to make things happen. The tennis court needed to be built, so we did. We formed a committee and we built it… We were so proud of what we had...[but] a job in the mines isn't so stable anymore. I don't think my grandkids will get them. It's funny I still call that home. I would have retired out there, but with the fly-in-fly-out, I said no. You just don't know who these people are.

Vicky's comments reveal how these mobile workers were feared as unknown others, and yet also reveal how the locals saw themselves become more and more like them. Vicky left town, and she suspects her grandchildren will not know the stable employment of previous generations. The Batchelors are a foundational family in Moranbah's history, the street on which they once lived is still called Batchelor Parade. Yet even they are slipping further into this relationship with Moranbah as an extractive enclave, an alienated workplace that is divorced from the social and communal attachments they once privileged, which is symbolized in activities like local sport and knowing your neighbours' names.

The changing workforce conditions is threatening these activities for even seemingly permanent residents. The pressures of managing difficult rotating 12-hour shift schedules makes participation in social events, particularly sport harder. Further, permanent jobs are cleverly converted into casual ones through contracting mine operations to labour hire companies, or through financial incentives during the mining

boom that tempted people to give up permanent positions. A permanent employee of one of the BMA mines is covered by an enterprise agreement negotiated between the CFMEU union and BMA, to cover a period of three years. Although slightly different at each mine, a typical operator makes around AU$ 140,000-150,000 annually under this agreement. During the boom, the massive demand for labour meant that contractors received higher salaries than their permanent counterparts. Some left their permanent jobs to take these positions. Yet with the bust, many contractors lost their jobs entirely and were not hired back on a permanent basis. Now, contractors and casuals make significantly less money and don't qualify for many of the entitlements of permanent employees such as sick and long service leave. So even long-term residents are forced to look elsewhere for work or rethink their strategic family decisions. This sees less people moving to town permanently or choosing long distance commutes.

Through these processes, Moranbah began to feel more and more like the camps on its edges. The Anglican pastor's wife told me:

> I knew one kid who was in year seven, and he had moved nine schools in his schooling career. These short-term contracts that everyone is on now are having a big impact. In church, on average, we are lucky to have nine to twelve month stays for newcomers. There is no sense of stability. Contracts create a sense of uncertainty, a climate of fear that is really disturbing.

Some strong advocates for a community minded Moranbah lament these changes and fight back. They use the limited resources that the mines still donate to these activities and work with it with amazing resourcefulness. A major figure in this regard was the community representative who fought every year to get her contract renewed by BMA, even though she was an incredibly qualified and energetic community relations professional. She consistently blew me away with her zeal and commitment to this

idealized community. Another major figure was the local radio station, and its fearless leader, Cynthia, who managed to secure a grant from BMA by crafting a clever proposal that configured the radio station as an advertising venue, thus fitting the entrepreneurial local business focus of the company' grant preferences.

These community advocates also felt the need to not overplay the suffering of the community. They emphasized that Moranbah was a great community and a great place to raise a family. They hated portrayals in the media that represented Moranbah as the archetypical boom and bust town. After the town appeared in a negative light on the national news program 60 Minutes, which I will describe further in chapter three, Cynthia from the radio station posted on Facebook:

> For family and friends around the country who are concerned- that Sixty Minutes story was as usual an absolute beat up and misrepresentation of Moranbah. As you all know [Greg] and I have made this place our home for nearly 14 years and would kill for a ghost town experience for even just one weekend!!! Involved in over 7 community clubs between us (our choice) I also work for a local not-for-profit organisation that has managed to scrape by through the good and bad for nearly 20 years. This town is a fantastic place to live and we have a mortgage here too-just 1- and live in it as our family home. Who knows what the future will bring and maybe we'll never sell it in the future for a decent price but I wouldn't swap the experiences I've had here for anything.

Although I often heard Cynthia lament the loss of community participation, and the extra burden this put on her, she also wanted to defend against the negative portrayals of the town as suffering. This was partly because these representations only fuelled the problem. Firstly, in the context of increased long-distance commuting, which I will outline more thoroughly in chapter one, a negative reputation that portrayed the town as suffering only discouraged people from moving their families to Moranbah when they

were offered a job. The company rhetoric that presented fly-in-fly-out and drive-in-drive-out as a lifestyle choice fed this tension. If it was known that Moranbah was suffering, and people now had the option of not moving there while still being able to take advantage of the high paying mining jobs, they would simply keep their families in coastal homes. A miner once told me, when "I worked at the Middlemount Mine, I told the general manager of the mine, 'You know they're losing teachers at the school' and the manager replied, 'Yeah, I know, I took my kids out of school here'. That was the ridiculousness! As the manager he could have done something about that, but instead he just moves his kids to boarding school."

In addition to the immediate threat of a negative reputation to people's choice to move or not, the community also faced a political context—which as I described in the introduction—framed coal and coal mining as morally unjust in the context of anthropogenic climate change. Coal's contribution to climate change, although somewhat divorced from the specific context of Moranbah because Moranbah mostly mines coking metallurgical coal, meant that protecting coal jobs and coal communities conflicted with moral arguments about climate change. Thus, Moranbah residents faced another paradox.

They rose to defend the industry which they depended on for their livelihoods and to protect the strong social attachments to coal mining which were fundamental to what they valued about their community. However, the actual coal jobs that they rose to defend were no longer what they used to be. They had to support coal mining and the companies, at the same time that these companies were undercutting their entitlements and neglecting their community. As the mayor of Moranbah released in a press statement in response to

a convoy of anti-coal protestors led by the former Green's leader Bob Brown, who passed

through the region:

> Bob Brown's Stop Adani Convoy is an absolute affront to the proud resource
> communities of Queensland. The convoy represents an attack on our history. An
> attack on our lifestyle. An attack on our very future. It is, in a word,
> offensive….Residents in our cities reap the benefits that our sweat has earned—
> public transport, roads, schools and hospitals are all funded with those revenues
> [derived from coal royalties]…Our miners toll every day to deliver for Australia.
> But in the echo chambers of the inner city, where a myopic green mantra drowns
> genuine debate, the livelihoods of thousands of regional Queenslanders appears to
> mean nothing. …Let them come [the convoy], let them look us in the eye and let
> us challenge their misguided belief that their actions are about some faceless
> corporation and not without impact on hard-working families (Baker 2019).

As Mayor Baker highlights, in Moranbah, mining companies cannot be disentangled

from the community which depends on them. Therefore, climate change protestors intent

on stopping an expansion of coal mining are an affront not just to a corporation but to a

community's "history", "lifestyle" and "future". Yet Mayor Baker was no fool about the

role of corporate policy in undercutting the community, telling me in an interview, "The

companies are like teenagers. You tell them they can't have 100 per cent of the workforce

fly-in-fly-out, and they'll make it 99.9 per cent!"

The tensions of labour alienation in the context of increased global and moral

rhetoric around climate change and the environmental crisis is the unifying framework

for this first section of the thesis. The next chapter will outline the specific details of

casualization and long-distance commuting. I will describe the threats and tensions to this

particular emplaced community and the pioneering relationship to the environment that

this undermines. I will then complicate this representation through the stories of familial

life projects and young women working in the mines who add nuance to this more conservative story. Finally, I will engage in the moral entanglements and debates through which some of these ideal types of Moranbah's residents are contested and worked out through the back and forth of moral accusations, including what this might tell us about the growth of populist anxiety and political divisiveness.

CHAPTER ONE: 'Nothing But Scrub': The Spatiality of Labour Precarity in Moranbah, Queensland

For the alleged commodity 'labor power' cannot be shoved about, used indiscriminately, or even left unused, without affecting also the human individual who happens to be the bearer of this peculiar commodity. In disposing of a man's labor power the system would, incidentally, dispose of the physical, psychological, and moral entity 'man' attached to that tag. Robbed of the protective covering of cultural institutions, human beings would perish from the effects of social exposure; they would die as the victims of acute social dislocation through vice, perversion, crime, and starvation. Nature would be reduced to its elements, neighborhoods and landscapes defiled, rivers polluted, military safety jeopardized, the power to produce food and raw materials destroyed. Finally, the market administration of purchasing power would periodically liquidate business enterprise, for shortages and surfeits of money would prove as disastrous to business as floods and droughts in primitive society (Polanyi 2001 [1944]: 77).

Moranbah regularly experiences extremes of weather. Wet and dry seasons are remarkable contrasts. Often the land is parched and dry but then the rains come far too quickly for the ground to absorb, and the usually dry riverbeds overflow with intense energy, flooding over the roads and cutting the town off from the outside. While living in Moranbah I experienced a 'mini-cyclone,' in 2016. The rain wasn't falling but blowing sideways like a horizontal waterfall, and the strength of the wind tore down powerlines, knocked down sheds, ripped off roofs, and sent trampolines flying through the air and into neighbours' trees. There is nothing particularly unusual about this. Extreme weather is a regular occurrence, but there are certainly whispers that the storms are getting worse. Cyclone Debbie in the following year caused so much damage that BHP-Billiton, the

main coal mining company in the area, had to declare *force majeure*, unable to fulfil its coal export contracts (Westbrook and Regan 2017).

The 2016 storm was understandably the topic of public discussion as people began to clear debris and return to their normal lives. Climate change was occasionally evoked as a nervous joke, but instead a different element of vulnerability was emphasized in public debate: the impact of recent employment practices on the community's ability to weather the storm.

When I brought up the cyclone in conversations in the days after, several different people told me a story about a mother who was home alone with her three young children during the mini-cyclone. She was worried about the damage that was occurring to the house as she witnessed the shed in the backyard fall to pieces. In her anxiety she called her husband pleading with him to come home. This shouldn't have been a problem. The open-cut mines weren't operating in this weather, and the mine where her husband works is only a few kilometres from town. However, her husband works as a fly-in-fly-out (FIFO) miner, a job he was eligible for by lying on his job application saying he lived 1,000 kilometres away in the city of Brisbane. If he had set off to assist his family living less than fifteen kilometres away, he would have risked being found out.

At the time, 2016, FIFO was mandatory at two nearby mines, Caval Ridge and Daunia both operated by BHP in partnership with Mitsubishi (under the initials BMA). This meant that having a home postcode in the vicinity of Brisbane (roughly 1,000 km south) or Cairns (roughly 1,000 km north) was a condition of employment at the mines. These FIFO workers fly into the Moranbah airport and transfer to a bus which takes them to the gated mine camps, where they sleep and are fed, for a period of weeks working at

least 12-hour shifts. When these days are over, they re-board a bus that returns them to the airport, and board a plane that then flies them home to larger coastal cities. This bypasses the local community. No resident of the nearby region was allowed to get a job at these two mines. Some used distant family postcodes to secure a job, but during their working days they were not allowed to come home to Moranbah.

The farcical nature of this situation is clear to many in Moranbah. "It makes no sense but it's just part of the contract" the wife of a miner who occasionally worked on short contracts at Caval Ridge told me. A mine that is actually visible from town will not hire local residents. There was political pushback before the mines were approved with these conditions, particularly from members of the local council government (Wright and Bice 2017). However, these mines were approved during the mining boom and hence intense housing pressure was a bigger concern than local unemployment. In the context of the bust, these pressures have reversed. Once the mines were approved with these conditions, it was difficult to change, as the mining companies (in this case BHP) have considerable political power in state and national politics. There has been some legislative success in changing the situation lately.

In August 2017, the Queensland state Parliament passed a law making 100 per cent mandatory FIFO workforces illegal by prohibiting postcode discrimination. However, this does not apply to already existing contracts, and many in Moranbah are critical of the impact the legislation will have in reality because, as I will show in this and the following chapter, this legislation does little to change the structures that encourage FIFO even when it is not mandatory. Beyond mandatory enforcement, long-distance commuting like FIFO is enabled through particular temporal and spatial arrangements

and the casualisation of employment, which have knock-on effects for labourers and their families. The temporality of labour arrangements and their impacts on gender and household organization will be the focus of chapter two. First, however, I will examine the particular spatial dynamics of labour commodification and associated alienation and precarity. This includes a precarity of the particular form of environmentalism in Moranbah. As the vignette above shows, the experience of extreme weather is compatible with a pioneering conception of a harsh and oppositional nature. However, through communal organization this harshness was previously overcome. Through the increased precarity of labour, the ability to oppose this harsh nature is undermined. This dynamic presents a double environmental and labour precariousness, reflecting the interlinked commodification of labour, land and money in the conditions of the Anthropocene.

The Spatiality of Partial Labour Commodification

The quote that starts this chapter from Polanyi's *Great Transformation* described the social and environmental degradation that would derive from the fictitious commodification of labour, land, and money (2001 [1944]). He assumed that a double movement would accompany such commodification, as it did momentarily through the growth of labour protections and associated social structures of stable employment and forms of Fordist corporate paternalism (Allison 2012). However, this was followed by subsequent waves of commodification linked to the conditions of neoliberal late capitalism (Burawoy 2010; Parry 2018; Standing 2016: 37).

Burawoy has updated Polanyi's analysis to describe the contemporary moment as a third wave of marketization which is more than the escalation of commodification but derives from "the forms of and synergies among the commodification of different

fictitious commodities" (2010: 310). These forms of synergetic commodification illustrate the complexity of contemporary capitalism and the layered forms of precarity that I hope to highlight throughout this thesis as characteristic of the experienced Anthropocene. For as Burawoy has further argued, commodification is "the key experience in our world today, and … exploitation, while essential to any *analysis* of capitalism, is not *experienced* as such" (Burawoy 2010: 307 emphasis in original).

Even though the commodification of labour, land and money are inseparably implicated in Anthropocenic precarity, this chapter uses labour as the entry point to analyse these relations because labour commodification is central to the experience of the increased precarity of life in contemporary Moranbah. I will use commodification to refer to the broad conditions through which labour is *partially* transformed into a disembedded and exchangeable commodity, which requires alienation from social structures and physical dislocation. I use the term alienation to refer to the social and affective impacts of the commodification process, particularly the alienation of labourers from relations with each other and thus communities, which are themselves in place (Carrier 1992). Increased precarity is a resultant outcome of the commodification of labour (specifically workforce casualisation) and the broader social effects of alienation that are intrinsic to it. However, as the vignette above shows, labour cannot be separated out from the commodification of place, both through the commodification of nature in its transformation into a resource and the linked environmental danger of extreme weather events deriving from the burning of this resource, or through the forms of alienation that ignore the emplacement of labourers. Further, the commodification of money through increased speculative commodity markets and resultant cyclical prices reinforces

precarity and the commodification of labour by encouraging flexible—casualised and spatially mobile—workforces. It should be reemphasized that this commodification is never a complete nor homogenous process, and that the structures of commodification are crafted in relation to people's pursuit of various life projects (Bear et al. 2015; Gibson-Graham 2006 [1996]; Nash 1993[1979]).

David Harvey introduced the concept of the spatial fix to describe the process through which capitalism must reorganize space in order to address the problem of overaccumulation (Harvey 2001, 2003). While Harvey's analysis privileges capital's physical emplacement, this chapter focuses on labour's particular implication in the spatial fix. This chapter's focus on labour reflects analysis which reveals the critical role of labour control interacting with the materiality of energy in the historic adoption of fossil fuels and the political consequences (Malm 2013; Mitchell 2011). Yet while reacting to the demands of capital and material conditions, labourers simultaneously pursue their own life projects which feed back into the particular forms that the spatial fix takes. Labour is partially mobile when combined with particular infrastructures, but labour is socially emplaced. Thus when labour is moved around to respond to capitalism's spatial fix, emplaced social formations reorganize in response and not always in the idealised form intended by capital.

The complications that result in labour responding to capitalism's spatial fix resonates with Harvey and Krohn-Hansen's edited collection on dislocated labour. To the authors, "[d]islocation implies spatial movement, but it also refers to other senses of disruption or disorientation, such as the sentiment of feeling out of place, or of losing your bearings or sense of self as things move and change around you" (2018: 12). The

resultant social precarity that derives from labour dislocation illustrates the connection between political economic conditions and lived "structures of feeling" (Williams 1977: 128) that are intrinsic to their making and maintenance (Allison 2012, 2016; Han 2018; Hinkson 2017; Muehlebach 2011; Parry 2018; Stewart 2012, 2016). Within Moranbah, the particular spatial organization of labour through the increase in long-distance commuting like FIFO and linked casualisation is increasing the precarity of the emplaced community as the long-term future of the town is in question. However, rather than the affects merely responding to capitalism's spatial organization, these precarious affects also reinforce the same dislocation as they feedback into life strategies which discourage family migration to mining communities.

This chapter focuses on the spatiality of labour in Moranbah and its implications for the increasing precarity of the emplaced community. I will contrast the previous stable employment at the town's founding to the current conditions of community as casualisation and long-distance commuting become more common. The town's founding required aboriginal dispossession to craft the possibility for the 'discovery' of the resource frontier. The town was then built to house the employees of the nearby mines. The mining company's needs for a stable labour force combined with the life projects of the workers and their families. This resulted in the growth of a pioneering community and associated conceptualizations of the environment which were linked to stable Fordist employment. However, in response to improved transportation infrastructures and decreased organized labour political power, the workforce has been gradually casualised. This casualisation, again in complex combination with people's life projects and strategies to manage this new insecurity, has led to the rise of long-distance commuting

practices like FIFO. The lack of secure employment, even when not enforced through mandatory FIFO described above, discourages miners with insecure employment from moving their families to Moranbah, unsure of the tenure of their jobs. The long-distance commuting then has served to increase the commodification and related alienation of labour through spatial organizations of enclave extractivism (Ferguson 2005) and modularity (Appel 2012) which further add to the precarity of the emplaced community. I will show how FIFO offers an additional insight into recent scholarly attention to the particular spatial and temporal possibilities that fossil fuel materialities offer capital— particularly the consequences of these spatio-temporal formations to labour and politics (Malm 2013; Mitchell 2011). Here, materiality is crucial to labour and political organization, including the geographic location and geologic structure of coal as well as the infrastructures of connection and disconnection that enable the mobility of fuel and labour. However, rather than these material conditions being determinate, the shifting uses of connection and disconnection shows how spatial and temporal organization is flexibly utilized to match the demands of Anthropocenic commodification (cf. Smith-Rolston 2013b).

Indigenous Dispossession and the Making of the Frontier

Whether driving the two and a half hours from the coastal town of Mackay or flying in with a bird's eye view of the landscape, Moranbah appears as if it were just dropped down in the middle of nowhere fully formed. Despite the large expanse of open land encircling it, the town itself is compact. Homes and buildings are built close to each other, lined up around patterned blocks and cul-de-sacs. Tightly organized neighbourhoods stretch out from a town centre, which hosts two pubs, a small shopping

centre and local government buildings. The only open spaces within the town limits are the large sporting grounds. I would come to learn that the reason for this compactness, and Moranbah's island-like character, is that the town is surrounded on all sides by mining leases.

Figure 1.4 Aerial map of Moranbah, Queensland (Google maps)

The town is here precisely because of the coal that lies underground. Construction on the town began in 1969, specifically to house the employees and their families of the nearby new open-cut mines. The area has grown since its official founding in 1971, but the relative isolation of the town means that there are still very few people who are here for reasons other than mining or related service industries. Originally built to service only two mines, the town is now home to workers who commute to about a dozen mines in the surrounding area.

A map of Australia is marked with ghost towns. These are places that once saw miners flooding into them; boom towns that are now busted and largely deserted. They

include the former copper town of Kuridala in Queensland; the tin mines of Poimena in Tasmania; the silver town of Silverton, New South Wales; the goldrush towns of, Clunes, Castlemaine, and Walhalla (Meredith 2016). All with their grand public buildings, the courthouses, and town halls that reveal a period of optimism now decay and serve as reminders of the dangers of single commodity economies (Knox 2013: 79). It is difficult to look at this long pattern of history and not read these towns as dismal omens predicting a similar outcome for a settlement like Moranbah. They have much in common with it; these were 'remote' mining towns, which relied on a single commodity, whose relative geographic isolation inhibited economic diversification and risk spreading, and whose population was primarily drawn to the area in pursuit of extractive profits. When politicians and climate activists argue for the end of coal, they seem to be echoing the drying up of the gold and silver lodes of the early 20th century. They would, it seems, be calling for the turning of towns like Moranbah into the ghost towns visited on school trips, where petticoated tour guides explain what life was like during the frenzied gold rushes.

This is the fear of many people living in Moranbah, today, who are reliant on coal for their livelihoods, and who feel an attachment to this place in which they have built their lives. However, the end of coal is more complicated, for not all coal is created equal. There will be various trajectories of the transition from fossil fuels, relating to the materiality of types of coal and the affordances of particular material properties and deposit geologies. Moranbah produces coking coal, which in contrast to thermal coal mined in the Upper Hunter Valley discussed later in this thesis, currently has no economically viable replacement in the production of steel. The coking process requires

more than just energy, the chemical reaction involved also necessitates the high carbon

content that, for now, only coking coal can feasibly provide at scale (Norgate and

Langberg 2009). As many people in Moranbah told me, the last coal to come out of the

ground in Australia will come out of this region.

This distinction between coking coal and thermal coal was the most often cited

response to my questioning miners about the morality of coal mining and its contribution

to climate change. Although some denied the reality of climate change, most accepted it

and used this typological distinction to separate their own labour from responsibility for

it. And yet, this distinction often fell apart when faced with further questioning. Many

had worked in thermal coal mines before or admitted that they would if that was the only

job available. The skills and mining process are exactly the same, and thus in the

fluctuating industry with increasingly insecure employment, movement between the types

was common or at least imaginable.

This typological distinction also fell apart in relation to the Adani Carmichael

mine (to be discussed further in chapter 4). This mine was being proposed during my

fieldwork and would be a large thermal coal mine relatively near to Moranbah. Thus, it

represented potential employment and future growth opportunities for the coal mining

industry. It was strongly supported by Moranbah locals despite the debate which framed

it as incredibly detrimental to global climate action. However, the hopes around this mine

did not fully displace the anxieties that many felt about their future in the industry and the

way in which this mine was utilized politically.

Those involved in the main mining union, the Construction, Forestry, Mining, and

Energy Union (CFMEU) were quite articulate in expressing how climate change and

environmentalism worked to distract critique away from the coal mining companies and the casualization of the industry. In an interview with the head of the CFMEU branch at a local mine, I asked him what he thought about the Adani Carmichael mine and whether he thought it would go ahead. He replied:

> Carmichael is the biggest real estate scam ever. There is lots of hope around it, but it's false hope…I hope I'm wrong about that. All this talk about it being the next boom is false hope, but I would love to be wrong. The government is just stirring everyone up about it so that we blame the greenies for why we don't have jobs.

A CFMEU representative at the state level repeated a similar critique in an interview with me where he explained his evolving thoughts on climate change:

> There is acceptance globally that climate change is real. It took me a while to get there, I admit. But at the higher levels you get to understand it…None of our mines have shut because of climate change; they've been shut because of the oversupply of coal causing the price to collapse, and then even if they don't shut, the company uses the lower price as an excuse to go and cut 'costs.' That means our entitlements. We see economics as a bigger pressure than climate change.

Importantly, as these union representatives recognize, it is not the end of coal that most immediately threatens the town of Moranbah but the changes to labour through increasing casualisation of the workforce and labour dislocation through long-distance commuting practices. The material affordances of coking coal and the geographic location of the deposit craft the political possibilities around which coal mining and the associated community take shape, but they are not determinate as the history of the region illustrates (cf. Smith-Rolston 2013b). Thus, the ghost towns that were once thriving mining towns are not the inevitable future of Moranbah, instead Moranbah's 'remoteness' and thus vulnerability is more than mere physical distance or disconnection

but configured in political practice. Remoteness draws on the appearance of naturalized

conditions of physical distance but, as Ardener has shown, remoteness is a relative

concept (Ardener 2012: 532) and a representation used for various political or economic

ends (Andersson 2016; Andersson and Saxer 2016; Gardini 2016; Rippa 2016). I will

now show how Moranbah's physical isolation and disconnection are inconsistently

deployed to match the demands of extractive capitalism and, in particular, the

commodification of labour and land in Moranbah.

While the official history of Moranbah begins in the late 1960s, the possibility of

this town required an erasure of the region's much longer history. The emptiness of the

landscape had to be conceptually, legally, and physically made. Legally, the land was

deemed empty through the juridical falsehood of Terra Nullius, designating Australia as

previously uninhabited, thus legally justifying British colonial settlement. This legal lie

required the aboriginal population of Australia to be conceptually non-human, unworthy

of recognition as original inhabitants. They belonged, instead, to nature, which, like the

landscape, would have to be tamed and civilized by British colonists (Povinelli 2002;

Wolfe 1999). The Australian landscape then was made empty, legitimizing the expansive

frontier of settler colonialism and, through this expansion, the erasure became physical

through violent dispossession and genocide.

The German explorer Ludwig Leichhardt explored the region in the mid-1840s

noting the existence of coal in his expedition journal (Leichhardt 2002 [1847]: 68) and

clearing the way for the coming of pastoralists to the area, which set off the Frontier

Wars in Central Queensland. This period was marked by immense brutality. The violence

committed against the aboriginal population was not well documented whereas any

deaths of white settlers received outsized retribution from the Native Mounted Police Force. This frontier violence continued beyond original dispossession through to the stolen generations (Bottoms 2013).

The Barada Barna people—who have recently received their native title determination as the traditional land owners of the land on which Moranbah now sits—trace their latest dispossession back to 1908, when their apical ancestor, Maggie Barker, had her children stolen. The children were stolen when playing on the banks of the Nebo River and sent 700 kilometres away to the mission at Barambah (today called Cherbourgh). In 2015, the original inhabitants received acknowledgment through the native title legal system. Nonetheless, the erasure of this earlier indigenous history is thoroughly achieved in the local narrative, as a history of the town written by a local historian describes: "Thirty years ago [referring to 1966] there was nothing but scrub and the sound of crows where Moranbah now stands. It was, in every sense, a new frontier in a place as old as time" (Murray 1996: ix).

Wolfe (2006) describes the "logic of elimination" that was intrinsic to the genocide of the indigenous populations through the concept of territoriality as "settler colonialism's specific, irreducible element" (2006: 388). He argues that the logic of settler-colonial territoriality "destroys to replace" (388), for the frontier had to be made empty and open for expansion, civilization, and development. As Anna Tsing has argued, "[f]rontiers are not just discovered at the edge; they are projects in making geographical and temporal experiences. Their 'wildness is' made of visions and vines and violence; it is both material and imaginative" (Tsing 2003: 5100). This is clearly the case in the erasure that crafted the possibilities on which Moranbah would be built. The emptiness of

this land was part of the original project which made it colonisable and set the conditions on which the future mining industry would 'discover' a resource frontier and construct a pioneering inspired community.

While Australia had a significant history of coal mining prior to the expansion into this area of Central Queensland in the late 1960s, much of this previous mining was underground coal mining. The shifting technology now opened up new areas for mining through capital intensive open-cut mining. An American company, called the Utah Development Company,[12] had secured the right to mine in the Bowen Basin of Central Queensland. It first built the open-cut Goonyella mine, opening in 1971, which would soon be followed by the open-cut Peak Downs Mine opening in 1972. Open-cut mining, also referred to as open-cast or open-pit, is a form of surface mining. Rather than digging tunnels into the layers of rock above a coal seam and then mining under the surface, open-cut mining strips away the surface layers of rock, thus exposing the coal seam to be mined. Unlike underground mining, where a smaller area of the surface is disturbed, open-cut mining disturbs large areas of land, leaving substantial voids and pits within the landscape (to be discussed further in chapter six). This form of mining does not require as large a workforce as earlier methods, but it does require some labour. The relative isolation of the area, made through violent elimination, required that the labour force for these mines be brought in, and necessitated the construction of towns for labourers to live in.

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[12] The first boom time ended around 1982, which allowed BHP to buy Utah Development Corporation from General Electric, of which it was a fully owned subsidiary. Several of the mines in the Bowen Basin are still run by the now merged BHP-Billiton in partnership with Mitsubishi, although other multinational companies have entered the area, including Anglo American, Glencore, and Peabody.

Building Moranbah: Environmentalism in a Pioneer Town on the Resource Frontier

Building a town to house the workforce for the mine in the area around what is now

Moranbah was deemed necessary. This is partly due to earlier struggles over the

provision of housing for mining workforces, primarily in Moura as well as Blackwater,

Queensland (see chapter three). However, this was also a time in which the state's

Figure 1.5 An operating dragline (photo by author)

development plans followed a modernization logic, in which economic development and

the opening of regions included the building of towns. This era of stable employment

meant that constructing company towns with associated infrastructure and social services

to support workers' families was considered necessary to recruit a reliable workforce of

married family men (Murray 1996; Peetz and Murray 2010; cf. Nash 1993[1979]).

Although having its own specificities, the town followed similar patterns of paternalist Fordist management practices premised on stable employment and families headed by a male wage-earner (Allison 2012; Parry 2005, 2018).

The site of the current town was chosen both because of its proximity to the mine sites and because it could be included within the bounds of a single local government area, the Belyando Shire. The town would not strictly be a company town, but it would be governed under existing local governments in this cattle-grazing country. The Ullman and Nolan Engineering firm was hired to draw up the plans for the town, which they developed in two stages, with 550 homes to be built in the initial stage, and room for another 410. They recognized that there would be a need for an eventual expansion. Although the ultimate purpose of the town was to serve as a 'dormitory,' the 1969 feasibility study also stated that:

> the isolation of the town from nearby large centres of population, such as Clermont or Mackay, implies that the town will have to be self-contained. The town plan therefore must make provision for accommodating essential service industries, government, communal, business, shopping, and recreational facilities (quoted in Murray 1996: 21).

The narratives that surrounded the building of this town, particularly in the regional media, emphasized a frontier-style developmentalism. This linked modern development to a history of pioneering and settler colonialism. A regional newspaper, The Rockhampton Morning Bulletin, wrote that those building this new town were:

> infinitely different to the old concept of pioneering—axe-swinging individualists raising large families in bark and slab results. … Although conditions are different today, the spirit of the new pioneers, the challenge, the excitement and the satisfaction of creating a new community are as apparent today as in the old days (quoted in Murray 1996: 22).

This sense of pioneering and frontier fantasy also came to define how the early residents conceived of themselves with the founding of this new town. Moranbah's largely Anglo-Celtic settlers, the first contemporary residents, are mostly still living and able to recollect the early years of the town. Oral histories I collected revealed a very consistent narrative that emphasizes the place-making strategies of these residents. Finding what they perceived as an empty landscape, an open frontier, they went on to craft a community. From research conducted in the 1970s and 1980s, however, it becomes clear that the community (Gibson 1991, 1992; Williams 1981) was not homogenous in any sense but was structured by highly unequal class and gender relations. Nonetheless, a rather homogenous narrative comes out in nostalgic reflections about the making of Moranbah. I will quote at length one woman's recollections because they typify the narrative of the place-making of early Moranbah:

> I came here in January 1970. There were twenty homes, no A/C, no ceiling fans, no roads, no shopping centre. The doctors flew in from Blackwater every Thursday and stayed from 9am to 2. The ambulance officer was the doctor to us. The butcher came from Clermont on Tuesday to take orders and would bring it on Thursday. They would bring everything, shopping things. The first building was the Black Nugget [pub]. There was the primary school but my kids never saw preschool or kindy [kindergarten]. It was so hot and dry. I would flatten cardboard boxes to walk on top of to get to the clothesline because the ground was so hot. I wasn't scared. It was a new adventure. We looked after one another…We pioneered and, you know what, I would do it all over again.

In recounting the early years, residents often emphasize the harshness of the environment and the lack of comforts, but also stress that this brought them together socially in order to care for each other, and through this they relate to a longer history of pioneering and settler colonialism. This resonates strongly with Veronica Strang's (1997) description of

the importance of the pioneer in Australian national identity. In contrast to aboriginal engagement with the land, she argues that, for Anglo-Celtic settler Australians, scientism and belief in linear development emphasize the technological transformation of the land. The landscape was conceived of as an adversary, and thus settlers' first concern was to bring the land under technological control. She further discusses how this frontier representation continues to reproduce a strong nostalgic image, important for Australian identity, creating "enthusiasm for the preservation of archetypes that symbolize courage, freedom, and an intimate interaction with the physical world" (1997: 178). This is clearly reflected in the pride with which early Moranbah residents reflect on their relationship to this place, even in a much more contemporary history, for as Anna Tsing has argued, "[f]rontiers energize old fantasies, even as they embody their impossibilities" (2005: 28).

Early residents describe the heat, the dry river, the dust, and their own adaptation to a harsh landscape, and emphasise that this was often a collective endeavour approached with sustained energy and occasionally a sense of humour. Tales circulated of an old tradition, called the Henley on the Isaac (a play on the Henley-on-Thames Royal Regatta). Instead of racing boats, teams constructed boats that could be carried. This was an ironic comment on the Isaac River, which 'flows' past the town, but is usually a dry river bed, except during the flash floods. It is this sort of social adaptation and overcoming a harsh landscape, with a social framing, that play into frontier narratives about building an active community (see figure 1.6).

Environmental historian Tom Griffiths has argued that this settler colonial relationship to nature alongside the introduction of non-native flora and fauna compose an ecological imperialism, where "for Australian settlers, 'ecology' and 'empire'

represented the competing realities of geography and history, land and culture, and stood

for a fundamental, persistent tension between origins and environment" (Griffith

1997:11). Thus, the particular relation to nature cannot be divorced from the imperial,

colonial, and pioneering values that are encapsulated in these celebrated frontier

narratives. Ecology and the environment are primarily privileged in relation to a social

history through which they are intertwined and made valuable.

Figure 1.6: Henley on the Isaac in 1970s exact date unknown. (photo courtesy of Barry Ford).

It was primarily young nuclear families that moved to Moranbah in the early

years, many with young children. The jobs in Moranbah offered high salaries for the

relatively uneducated workforce that was recruited. The high wages were considered the

main motivation for working in Moranbah, and the distance from any regional centres and the poor quality of the roads in those days, which were subject to flooding during the wet season, meant that long-distance commuting was not a realistic option, so families moved together. Most young families did not come with the intention of staying forever. However, many became connected to the community and accustomed to the high salaries. Many stayed their entire working lives and beyond. Early residents point to Moranbah's cemetery as evidence of such lifelong attachment. While Moranbah families were responding to capital's spatial fix as they moved to the region, their pursuit of their own particular life projects led them to build the social infrastructures of an active community.

Community sport and social clubs became important elements of life, and early residents put much energy into starting and running these activities. Claire Williams who conducted social surveys in 1975 found that 45 per cent of women were involved in at least one sports group (Williams 1981). There also were a number of social and arts groups that formed. Early residents point to the success of these endeavours as well as the modern conveniences Moranbah now has—the large grocery store and the air conditioning in every home—as sure signs of their success as pioneers and frontiersmen.

However, things are beginning to change for newer residents. Moranbah has in some ways always been seen as a place that requires trade-offs and sacrifices to live in, but the short-term commitment and the transience of the population has increased in the last decade. There is a common trope in Moranbah called the 'two-year plan' where families move to Moranbah with the plan of staying for two years, suffering but saving money, after which they will be able to return to the comfort of the larger urban centres that they come from. Many of the teachers in Moranbah's schools are young teachers

doing their 'rural service,' a scheme which entices teachers to less desirable locations by offering them better placements when they eventually return to teach in urban schools. In what seemed to echo my own experience as an anthropological fieldworker, a friend who was born in Moranbah lamented this attitude among many newer residents, telling me: "It's almost like a rite of passage for people to suffer through Moranbah, you just suffer through your years here." The pastor of a local church even explained the church's name to me, the Oasis Life Church, saying: "an oasis is a place where people come, collect what they need from it, and move on. We recognize that our community is like that for many."

This sense of value extraction from Moranbah is not entirely new and, of course, reflects the conditions of extractive coal mining itself. However, the lack of stable employment is shifting the frontier building of earlier pioneer imaginations into a more purely extractive enterprise, in which labour insecurity discourages social investment. The increased precarity of labour through the casualisation of the workforce is increasing the precarity of life in the community, not only through employment insecurity and the loss of stable futures but also because of the particular spatial organization of labour that increased casualisation encourages, particularly FIFO employment.

These communal changes are articulated in relation to the natural environment, particularly how the loss of community and social support relates to a loss of control over a harsh nature. The story of the cyclone with which I started this chapter reflects this clearly. Although the power of the cyclone was devastating and frightening, it was the fact that the father was not able to be home to protect his family that was the real point of concern. The vagaries of nature may be frightening but through social protections linked

to this pioneering conceptualization of the community, it can be overcome. Nature thus cannot be distinguished from the human project of settlement.

Australian theorist Ghassan Hage has similarly linked settler-colonialism to environmental relations in his book *Is Racism an Environmental Threat*. I will discuss the implications of his theorization more thoroughly in chapter three, but what is most useful here is his theory of generalized domestication. This, he explains, "is a mode of inhabiting the world through dominating it for the purpose of making it yield value: material or symbolic forms of sustenance, comfort, aesthetic pleasure, and so on" (Hage 2017, 87). It is directly linked to settler-colonialism, both through the exploitation of people, such as the dispossession of the indigenous population, as well as the exploitation of nature. However, his emphasis on domestication is crucial for understanding the social value of nature in Moranbah. Hage relates this domestication first to the domestication of animals, which beyond exploitation is also the incorporation of animals into human socio-economic systems as objects of exchange. It involves taming them in what is meant to be a mutually beneficial process to both the animals and their owners. It is a process of "bringing into the home" (91). Although this is a "homeliness attained through domination" (92). This is quite relevant to the framing of nature in Moranbah. The exploitation and domination of nature is done in order to construct home and community. Thus, the loss of this home and community also represents a loss in this ability to tame nature.

Resident's relations to their front lawns and gardens reveal this tension. Moranbah's front lawns of manicured green grass and flowerbeds signal a preservation of social settlement, and thus the privileged form of moral community. At the reunion of

early residents and miners described earlier, a woman who has now retired to Mackay told me, "I went back to Moranbah the other day, and driving around it just made me sad. We were so proud of the community we built, but that pride just isn't there for the new generation. No one looks after their garden anymore." I followed up, "Their garden?" She continued, "Yeah, in the old days we all had these beautiful gardens. You'd see everyone out there on weekends working on their gardens and the men mowing the grass. The other day I didn't see anyone outside, just lots of weeds."

A few weeks later, discussing the foreclosures with a local businesswoman who was born and raised in Moranbah, she said:

> I hate seeing all those overgrown lawns. The banks are supposed to mow the lawn, but they don't. So the town just looks so messy now. It's like this constant reminder of how much the town is struggling see all that tall grass. It's dangerous too! I don't want my kids walking by that grass; there might be snakes.

Again, nature should be tamed. Weeds should be pulled, and grass should be cut. When this is not done, danger might be lurking. Communal life involves the curating of nature to keep it safe and under control. This is a domestic and gendered task. The loss of the morally privileged nuclear household and the community ideal they contribute to is thus symbolically linked to the loss of this tamed landscape. As Smith argues:

> The reconciliation of history and environment endures as a contested discursive field, because its tension is neither wholly naturalised nor wholly accommodated. Australian natural history is, then, a national history, saturated in existential and normative aspects of human experience (Smith 1999: 302).

The taming of nature as part and parcel of pioneering success means that the threats to this communal organization—the loss of social community which foreclosures and FIFO represent—is interpreted symbolically in relation to these ecological forces.

This social taming of nature however reaches its most extreme on the mine sites themselves. In my early days of fieldwork, I heard the oft-repeated description of mine sites as lunarscapes. I had assumed that this was primarily a reference to the craters that are associated with the moon. But the first time I managed to spend a day on a mine site, I understood this reference differently. Now standing on this scape myself, what struck me about the lunarscape description was not the specific shape of the land but the sense that you are no longer on Earth. All the familiar and taken-for-granted markers of an Earthly grounding are gone. There is so little green, so little dark organic soil, not a single weed, no miniscule sounds of insects underfoot. It is dead sterile rock as far as the eye can see. Stretching into the horizon, there is nothing but rock and yellow alien life forms with large round rubber legs and scooping claws slowly making their way through this extra-terrestrial space. Yet, with a look at my human companion next to me, the young woman on my football team, I was reminded that I was on Earth. Then I looked at those yellow aliens and realized they were actually trucks being driven by another human, one of the young men or women that fill the pubs in the evening and the church on Sunday morning. All of a sudden, it seemed incredible, the human ability to construct something so massive, so vast, that it can only be understood as extra-terrestrial. On the mine site, the sense of human domination is predominant. The belief in technology matched with human labour makes the natural environment seem so arbitrary, so malleable.

When I reflected on these thoughts later to my close interlocuter, a German mine engineer, Russell, he agreed and added:

> Yeah, it's amazing how it all just becomes a new kind of natural landscape. Like, I just found out recently that this lake in Germany that I used to go camping at on family vacations all the time is actually an old rehabbed mine site. But to think of

that area without the lake, it just wouldn't be natural. That lake was as significant a part of the landscape as any other part.

I will discuss more the political ramifications of this attachment to mined landscapes in chapter six, but for now this shows a complex interaction between what is deemed natural and the human co-constitution of it.

Russell was incredibly interested in nature, perhaps more than anyone else I met in Moranbah. He loved spending time outdoors and taught me the names of native flora and fauna. He even regularly texted me photos of interesting insects he found wandering his house or the mine site. He loved to go kayaking and would travel great distances to find creeks with enough water in them for a short journey paddling along. He grew up on a farm in Germany that his family had owned for several generations, and his general love of nature seemed to derive from a childhood spent outdoors.

As one of my closest friends in Moranbah, I challenged him about his environmentalism regularly. I often asked him how he reconciled his love of nature with his work as a coal miner. I asked if he ever worried about climate change and his contribution to it, or if he felt bad about the destruction he was having on the landscape. In answer to the landscape question, he replied there was plenty of land out there and that the mines were only a tiny bit of it. In terms of climate change, he would immediately deflect using the common refrain that because he was mining coking coal, that largely absolved him of responsibility. I pushed him further on this: "Yeah, but your first job was in a thermal coal mine". He replied, "Sure. Fine. But look, at the end of the day, I like my job. I get to spend time outside playing with dirt." The nature he loved and appreciated deeply—the joy he felt paddling his kayak along or his excitement over the golden orb spider that took up residence in his kitchen—did not raise moral dilemmas with his work

in the mines. He enjoyed his work, spending time in *his* nature, a mine site, which was just as natural as the lake he spent his childhood summers swimming in.

Another example of these differential relations to the environment can be seen through the relationship between a young couple Lena and Dane. I took guitar lessons while in Moranbah from a young woman, Lena, who had lived in Moranbah for nine years, brought there by her husband, Dane, who was an underground miner. Lena was very artistic, musical, and into new age spirituality. New age spirituality was relatively popular amongst a significant group of women in Moranbah, enough to support a small crystal shop in the town shopping mall, and a pop-up yoga studio opened by an intense yoga teacher who stood out in town with her shaved head and tan robes. She booked out instantly and caused the town to sell out of yoga mats. There was little formality or specific doctrine to this spirituality, drawing on a hodgepodge of non-western religious practice. It was more a chance for an exclusively female intimate gathering, particularly for those who did not want to look to the Christian churches for this.[13]

This sociality increased when Lena began running mantra singing workshops monthly. Mostly held in attendees' back gardens or garages, I attended several where a group of ten to twelve women sat in a circle. Lena demonstrated and led us in chants from native American folksongs to sikh meditations. She occasionally played guitar or rang a Tibetan singing bell. We chanted to channel the energy of the sun, moon, and earth: "Ra Ma Da Sa." We sang to Mother Earth to guide us through our life cycle:

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[13] They were enough of a presence in town that when the topic of discussion at the weekly women's prayer group at the evangelical church I attended was "Who in your community is lost and in need of saving?," the group decided that the most lost in the community were "all the people into crystals and meditation." As the women agreed, "they are tempted and corrupted by the devil." I managed to keep my involvement with them to myself until I ran into another member of the church group also attending a meditation circle.

"Mother carry me, your child I will always be. Mother carry me back to the sea." These were fun and intimate events. Throughout the evening we got over our initial shyness and opened up to the spirit of the event, singing loudly, laughing and holding hands.

Over a coffee one afternoon I asked Lena why she thought so many women were into spirituality in Moranbah. She offered a theory in her characteristic timidity, "I don't know, but maybe it's because miners are so down to earth and so they're attracted to women who aren't, who kind of have their heads in the clouds."

I followed up, "but when we're all singing about Mother Earth together and then go home to husbands who are all mining the same Mother Earth, doesn't that also create a bit of hypocrisy?" She responded:

> Yeah sometimes it becomes an issue with me and Dane. When I first met him, I thought it was awful that he worked in mining, and I particularly thought coal was terrible because of climate change and all. But Dane always explains things well; he's very practical about it. I suppose that's part of how opposites attract. He says the world needs coal and until people are willing to do without most electricity and without steal and all the other products that require coal, it's going to continue. So unless we are willing to live like that, we shouldn't talk about getting rid of coal. That's actually more hypocritical.

I witnessed this explanatory clarity often as Dane and I shared several mutual friends. One night at the bar—when Lena wasn't present—I asked him if he was into the same new age spirituality as Lena. He said, "Nah, Lena and I are very different." I ask if he means more than just the spirituality. He responded: "Well, you know, she's an artist, she likes different things. I'm a miner, I just need to be in the dirt."

What's interesting in his and Lena's theory of their difference is not Dane's lack of intimacy with nature, but a different expression of what material form of it he

privileged: dirt. He and Lena both track this material earthiness onto symbolic understandings of their personality and their labour, an artist and a miner. I didn't think to ask him explicitly about her theory on 'groundedness' and 'clouds' but there seems to be something to Lena's theory that he was grounded while she was atmospheric. He was practical and expository, and she was mystical and anagogic.

This intimate interaction with nature through the particular act of labouring in earth was often repeated as a celebrated aspect of working in mining. Being covered in dirt represented a hard day's work, but one that was valued as productive. To view mining as destructive was not fitting with either the pioneering sociality through which mining built Moranbah, nor to the practical need for mined materials for steel or electricity. Mining might change the landscape, but this can be transformative rather than simply destructive, even making childhood lakes. Climate change is even harder to imagine, it is a step away from the intimate way in which miners relate to nature as dirt and earth, and into the atmosphere, a space more accommodating to artists with their "heads in the clouds."

Modularity and Distance-Enabling Technologies

I will soon discuss the increasing precarity of labour and its flow on effects in communal social life in more detail. However, first I want to place the increase in long-distance commuting in conversation with a larger theoretical discussion on the spatial affordances of fossil fuelled capitalism.

Australia's two major airlines both fly from Brisbane into the Moranbah airport, with several flights in and out per day. One would think this would have the effect of decreasing Moranbah's isolation. However, as FIFO shows, this connectivity has led to

the bypassing of the community. James Scott uses the phrase distance-demolishing technologies to refer to the roads, bridges, and telecommunications technology which reduced the difficulty of travelling through the landscape for the British colonial advance into the remote regions of Upland Southeast Asia (2009: 166). However, in the case of Moranbah, it is perhaps more accurate to think of the modern roads, comfortable cars, and the modern airport as distance-*enabling* technologies, for although they more readily connect Moranbah to major cities, such connection enables the dislocation of labour (Harvey and Krohn-Hansen 2018) through the bypassing of the local town and residential labourers.

The grid-like homogenization of modernist state development that Scott describes has also been seen in other terms when discussing contemporary forms of neoliberal capitalism which are particularly relevant to resource extraction. Ferguson maintains that "[w]hen capital is invested in spatially segregated mineral-extraction enclaves, the 'flow' of capital does not cover the globe, it connects discrete points on it" (Ferguson 2005: 379). The creation of distinct points of capital and profit-making are enabled through technologies which work to sever extraction from the conditions of its surroundings.

Malm (2013) describes a similar process in the adoption of fossil-fueled steam power in Britain's cotton mills. Malm argues that rather than the common assumption that the adoption of steam power was a result of resource depletion—either forests or water resources—coal powered engines were actually adopted due to the spatio-temporal opportunities that they presented for the control of labour. Particularly, steam power enabled the disembedding of industrial production from the temporal vagaries of natural water flows and the demands of the rural labour force, including the obligation to provide

local housing and services. The mobility of fossil fuels—opposed to the embeddedness of rivers and their rural labourers—enabled mills to concentrate in urban spaces with a plentiful reserve army of labour trained in industrial discipline. Thus, it was not the necessity of resource depletion, nor even the price of coal power,—as water mills were still cheaper—but the desire for labour control that led to the adoption of the coal powered steam engine in Britain's mid-19th century cotton mills. The alienation of nature—which mobile coal represented in opposition to emplaced rivers—and the alienation of labour were mutually reinforcing in the commodification process of early industrial capitalism.

However, the spatio-temporal organization that Malm (2013) describes for Britain's Industrial Revolution, has differential effects at the source of this fossil fuel energy than it does at the point of its use. In other words, although coal-fuelled steam power diminished labour power in the cotton mills, the dependence on coal eventually saw labour power increase at the coal face.

Timothy Mitchell (2011) and Andrew Barry (2013) have taken a similar approach to energy materiality as Malm (2013), but they have studied the political ramifications of energy production and the materialities of their distribution. Mitchell directly compares the politics of 19th century coal with those of 20th century oil. He argues that, in contrast to the flows of oil, the materiality of coal and the railway distribution chains created a number of bottle necks in the distribution of energy. Further, the underground method of mining also distanced miners from supervision and enabled mobilization. General political consciousness was not unique to the coal mining industry, but the materiality of coal's transportation enabled strikes and sabotage to be effective, leading to the rise of

19th century democratic politics. Mitchell argues, "[s]trikes became effective, not because of mining's isolation, but on the contrary because of the flows of carbon that connected chambers beneath the ground to every factory, office, home or means of transportation that depended on steam or electric power" (Mitchell 2011: 21). Oil extraction, by contrast, required less labour, and workers were more heavily supervised as they were not underground and out of sight. Further the liquid form of oil allowed for easier transportation along pipelines. Pipelines do not require human operators as trains did, were harder to sabotage, and easier to repair. Therefore, the material conditions of oil allow its transportation through space to match the jumping of capital between discrete points that Ferguson identifies (2005).

Mitchell's argument relies on the historic materiality of coal, but technology has shifted the conditions which a coal workforce faces (2011). Modern open-cut mines are heavily supervised. Some mines have even implemented SmartCap technology where mine machinery operators wear specially fitted hats which monitor their brain waves through conducting regular electroencephalograms (EEGs), and which alert their supervisors if they show signs of excessive fatigue (Ker 2015). The technology of cheap air travel also enables importation of workforces and thus diminishes the labour-organizing potential of the previously intimate underground miners. These changes to the coal industry do not diminish Mitchell's argument but support it. As Mitchell has argued, the oil age has so diminished the democratic politics of the coal age that all we are left with is a politics concerned with economic growth, that strives to distance itself from the political, as exemplified in the modularity and enclaves of offshore oil extraction (Appel 2012) but is being reproduced in coal mining's use of FIFO workforces.

Andrew Barry has argued that "[o]il companies have therefore long been concerned with the technical and managerial problems, as well as the financial costs, of containing and monitoring the unruly properties of both materials and persons" (2013: 15). Such unruly properties, in the case of Moranbah, are precisely the human employees with their attachments to place, family commitments, and social lives which exist outside of the workplace. FIFO thus partially reflects what Hannah Appel characterizes as 'modularity' to describe off-shore oil extraction's infrastructure and techniques through which the industry attempts to isolate itself from local conditions. She argues, drawing on Anna Tsing, that "[m]odularity draws our attention to the productive though ever-incomplete work done in the name of frictionlessness and disentanglement" (Appel 2012: 697).

Jessica Smith, further highlights that these resource materialities which matter for labour, not only relate to the broad historical narratives that Malm (2013) and Mitchell (2011) describe but have quite localized consequences that are simultaneously worthy of attention (Smith-Rolston 2013b: 585). In Moranbah, FIFO mines and, to a lesser extent, DIDO practices emphasize the particular labour consequences of coal's materiality here. The long-distance commute turns the coal mines into modular systems, which ignore the inevitable embeddedness of their operations in a nearby social world. The particular spatial organization of labour that FIFO represents is primarily about workforce control and labour commodification. I will now describe the particular ways in which FIFO and labour casualisation work to reinforce labour precarity in Moranbah, and how they serve the interest of Anthropocenic commodification.

From Frontier to Oasis: The Increasing Precarity of Labour and Life

The first town that the Utah Development Company built in the Bowen Basin was called

Blackwater, built in 1967 to service the mine of the same name (Peetz and Murray 2010).

It is about 200 kilometres south of Moranbah. In 2015, the mine, now run by BMA, hired

a contracting company, Downer EDI, to take over the mine's operations. The decision to

operate the Blackwater mine through a contracting company was justified as a necessary

cost-saving measure in a depressed coal market. Following the pattern through which

decreased coal prices are used to justify lost labour entitlements (Bowden and Barry

2015), the move saw the contracting company replace the 306-member permanent

workforce with casual positions. Some were paid their severance and given the chance to

reapply for the same job, but as casuals. Others were redistributed to surrounding mines.

One of the 306, nicknamed Hound Dog for his reputation as a relentless union activist,

was transferred to Moranbah and would become a key research participant. I first met

him at a rally in Blackwater that was organized to oppose the casualisation. At the rally,

he addressed the crowd in a clear expression of the link between precarious labour and

precarious social life through labour dislocation. He passionately said:

> In moving me and my colleagues and redistributing these positions to a casual style
> workforce, Blackwater has lost many hours of volunteer work, children in our
> schools, locals to support local businesses, and people who love to call Blackwater
> home. My fear for this community and many of our coalfield neighbours in the
> Bowen Basin is that there will become a belief that our towns are just somewhere you
> work instead of somewhere where you live. This will have terrible implications on the
> things that we value about being part of a community and a family.

Figure 1.7 Protest signs displayed along the highway running past Blackwater,

Queensland. BMA refers to the BHP-Billiton and Mitsubishi's partnership, which owns

several mines in the region, including the Blackwater Mine (Photographs by author)

Hound Dog's comments describe the three main drivers which feed into each other to produce increasingly precarious futures: the cyclical nature of the commodity cycle, the increased casualisation of the workforce, and the use of long-distance commuting.

-The Cyclical Commodity Cycle

It may take two and a half hours to drive to the city of Mackay with 24-hour pharmacies and a coastline, but Moranbah is far from disconnected. In fact, it is deeply connected to global markets, and perhaps more than most towns in Australia, this link is obvious. Moranbah's surrounding mines primarily export coking coal to Asia and there is little alternative industry around to absorb some of the shifts in global demand. The reliance on a single commodity means that the town's economy fluctuates in line with the global demand for coking coal and the mining company policies that organize in response. The commodification of money, the shift of money from a medium of exchange to an increasingly financialized instrument, generates increased instability in global markets and has everyday effects, particularly in communities with little alternative industry to absorb the shocks of such wider financial speculation (Burawoy 2010).

As a good friend described this unusual condition of life in Moranbah: "I can't think of any place where you have to think about the long-term price of iron ore. We're such a one-tier economy, you have to think about consumption patterns in China when you want to buy a house." This comment on the vulnerability of life in Moranbah to cyclical commodity prices was not an exaggeration—coal market sentiments do have a direct effect on housing prices. Even the local market for luxury items is directly affected by coal price projections. For example, while I was conducting fieldwork, a Chinese regulation was passed that limited the number of days per year Chinese coal mines were

allowed to operate. This instantly raised the price of coal (McHugh 2016). This change

was much discussed and the news was widely shared. The owner of a local electronics

store said it was the best day of business he had in years. In short, the shared sentiments

around the coal price and its instability have a rather direct impact on people's perception

of their own precarity, making it harder to imagine and plan for stable futures.

Of particular relevance to this chapter is that downturns are felt not only at the

level of everyday expectations and thus consumption choices but also in the relationship

of the mining companies to their employees. Historically, mining downturns have been

accompanied by reversals in hard-won worker entitlements. While they recover slightly

during the boom times, the entitlements gained never match those lost in the previous

downturn (Bowden and Barry 2015), leading to a general downward trajectory since

neoliberal labour reforms were first put into place. As Hound Dog's story shows, cost

reductions are the main excuse for large-scale workforce casualisation. However, it is

crucial to understand that market downturns very rarely mean decreased mine production.

-Casualisation

The drop in the coal price has made life more difficult in towns that rely on these

industries. However, this is not because the mines are slowing down production. It is true

that a few mines in the region have shut down in response to lower prices, leading to lay-

offs; but those that continued operating were actually increasing production. Increasing

production allows the mines to lower the unit cost of the coal, thus squeezing out profits

at the reduced price. These cost-reduction strategies become legitimized as the only

alternative to shutting down the mines. Despite the downturn in the industry, annual coal

production in Queensland was 36 million tonnes more in 2015-16 than it was at the end

of the boom in 2012 (Queensland Government Data 2018). In other words, the downturn means increased rather than decreased coal production but, in order to keep costs down and production up, the companies look for ways to reduce employee compensation.

The main cost savings come from the increasing casualisation of the workforce. This is primarily done through contracting mine operations to secondary companies, which then function as labour-hire companies. This is what happened at the Blackwater Mine and to many of Hound Dog's colleagues. Miners now work for the contracting company as so-called casuals rather than the mining company. They receive lower salaries,[14] no annual leave, long-service leave, or other entitlements and protections. This has been a rather recent and drastic trend. Contractors were only six per cent of the Queensland coal workforce in 1996, but by 2005 the figure was 47 per cent (Peetz and Murray 2010: 18). It is noteworthy that more recent statistics on this matter do not exist. The Australian Bureau of Statistics does not collect this information and the Minerals Council of Australia, the main industry body, stopped publishing these statistics in 2007 (Construction Forestry Mining and Energy Union 2018: 21). However, the numbers of contractors are likely higher today, as the CFMEU, the main union representing the coal miners, has estimated that 1,000 permanent jobs in the mines of the Bowen Basin have been replaced by casuals in the last few years (Smith 2016).

Working for these contracting companies is not like the stable employment of previous mining jobs. Many of the contracts on which workers are employed allow their contract to be terminated with 24 hours' notice. As Standing (2016) has shown, while increased flexibility is thought to be primarily motivated by the greater ease in firing and

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[14] In the case of the Blackwater Mine, casuals made 25.7 per cent less than those employed by BHP directly (Construction Forestry Mining and Energy Union 2018: 21).

hiring to match the demands of cyclical markets, this is only one outcome of flexibility. Another is that replacing permanent employees with insecure workers makes it harder for workers to organize (Standing 2016: 37). As Parry argues, "[k]eeping workers guessing about the company's intentions and in suspense about the security of their jobs predisposes them to acquiesce to the deterioration of their employment conditions" (2018: 12). This is evident in the broader coal industry strategy towards de-unionization. This insecurity in combination with the "displace[ment of] the unionized workforce with contractors" saw that "union density in coal mining declined from 75.5% to 39.8% between 2001 and 2013" (Bowden and Barry 2015: 51).

The form of workforce casualisation in the Bowen Basin has often lowered operating costs through contracting-out operations but, beyond immediate cost reductions casualisation also enables increased workforce control (Parry 2018: 8). This is a longer-term strategy towards workforce commodification in pursuit of frictionless profits (Tsing 2005). The increased discipline and control discourage unionism. Less organized workforces—either through decreased wages and entitlements or through fewer workplace stoppages—are less expensive over time. Greater control also explains the benefit of FIFO employment to the mines. It may seem entirely wasteful to be regularly flying workers in and out of a regional area rather than hiring locals. However, savings that derive from such workforce control compensate for the expense of the commute. These conditions closely reflect the spatio-temporal implications of fossil fuel capitalism identified by Malm (2013) and Mitchell (2011) in which workforce control is the main motivation for the particular organization that Anthropocenic capitalism takes.

-Long-Distance Commuting

This increase in casualisation is implicated in the increase of long-distance commuting

practices like FIFO and drive-in-drive-out (DIDO). DIDO is similar to FIFO but, here,

workers commute by car between their family homes on the coast and their workplaces.

They stay at camp or in town during their working days and nights and return to families

on the coast on their days off. Those I knew who DIDO'ed often told me that it was

because of the better facilities located on the coast in Mackay that they chose this

commuting pattern. The lack of a movie theatre in town, inadequate healthcare, childcare

or alternative employment for the non-mining spouse were often described as the primary

objects that Moranbah lacked, but that the coastal town of Mackay offered.

DIDO is often presented as a lifestyle choice, and scholars who have studied it

closely show that DIDO "was an informal rather than a company-directed process, albeit

one driven by changed job circumstance" (Bowden and Barry 2015: 54; see also Murray

and Peetz 2010, 2011). These job circumstances include the difficult shift schedules, to

be discussed in the next chapter, and also the increasing casualisation of the workforce.

When jobs are insecure, this discourages miners from uprooting their families and

moving them to Moranbah. As a local council woman explained, "if you've got

companies systematically casualising the workforce, that effects the community. People

don't move when they are on six-month contracts." It is a reasonable risk reduction

strategy in the context of precarious employment for families to maintain residence in

coastal towns, where there are larger family support networks and potential employment

for the non-mining spouse. The conditions are legitimized as a choice which—as

Burawoy has shown through the metaphor of the game—is central to how capitalism

generates the consent of labour. As Burawoy argues, "[i]t is by constituting our lives as a series of games, a set of limited choices, that capitalist relations not only become objects of consent but are taken as given and immutable" (Burawoy 1979: 93). The choice that surrounds DIDO commuting represents such strategic moves and the pursuit of life projects within changing spatial and temporal circumstances.

The growth in fly-in-fly-out (FIFO), however, has been more deliberate, and Bowden and Barry argue:

> Many of those who commuted from the coast were workers with established ties to the historic coal communities. The recent decision of producers such as BHP Billiton to not only utilize FIFO employment but to also avoid recruiting from Central Queensland, therefore, represents not an alteration of industrial relations practice but a fundamental recasting (2015: 54).

This increase in FIFO is more notably linked with control than is DIDO. Although Parry argues that control is often more important than cost savings in workforce casualisation (Parry 2018: 8), control and cost savings go hand in hand. BMA's own submission into the parliamentary inquiry into FIFO lays out the business case for FIFO most clearly. BMA's two 100 per cent FIFO mines are 26 per cent more productive than the mines with residential workforces. Absence rates are only 1.5 per cent at FIFO mines compared to 4 per cent at residential mines, and most strikingly, "[e]mployee disputes measured per person is about 47 times less at our FIFO mines" (BHP-Billiton 2015: 9).

These statistics emphasize the productivity benefit of the alienation of labour to the mining companies. Absenteesim is reduced as social and familial demands are distanced from the workplace, and increased control and monitoring leads to mine productivity increases. This last statistic about employee disputes is especially illustrative of another crucial element of control for alienation; that of labourers from each other. FIFO

discourages the formation of relations between mine employees. They do not play on the same local sports teams or have children at the same schools; their families are unlikely to know each other as they are geographically distant. A lack of employee disputes also means a lack of employee relationships.

By recruiting from Brisbane and Cairns, mining companies are more easily able to target employees without family connections to mining, and thus the unions. There was an obvious distinction between long-term residents and more recent arrivals in terms of how they viewed the labour unions. My housemate, Slimbo, who I will describe further in chapter three, was a second-generation Moranbah local. He was a proud member of the CFMEU. He marched in labour parades, attended all branch meetings, wore the union's stickers on his hard hat. Yet many of my other friends, who were employed as casuals and not members of the union, would speak negatively of the union. I heard a comment repeated several times that the unionized labourers were overly entitled and would strike if the mine ran out of sugar for their tea. These radically different attitudes to the unions reflect their different historical and familial experiences, particularly the strong labour solidarity that had been crafted and nourished by the emplaced community in Moranbah. Recruiting from outside enabled the mining companies to avoid this attachment to labour unionism. A state-level leader of the CFMEU summarized this to me when he stated in an interview, "I reckon they [mining companies] have 20-year plays…They're willing to lose money in the short term. It's obvious because the list just goes on and on of all the ways they are working to strip worker protections, destroy the union, and destroy community."

All these elements of alienation discourage labour organizing and decrease resistance to precarious employment. It creates a feedback loop through which increased casualisation encourages FIFO as families choose not to relocate to the mine fields as they are unsure of the stability of jobs there, and the practice of FIFO further increases the casualisation of the workforce by weakening labour organizing capacity. Thus, the increased casualisation of the workforce draws on and reproduces particular spatial formations enabled by technologies of connection and disconnection alongside crafting the conditions in which people must pursue their life projects.

The increased options to commute facilitated by better roads, a local airport, and the willingness of the mining company to hire non-residential workforces mean that a growing number of mine employees now do reside outside Moranbah permanently. Many take up this offer to FIFO within the changed employment circumstances, preferring the better amenities in larger towns and cities on the coast. Thus, the feedback loop through which labour casualisation and FIFO reinforce each other is matched by a feedback loop of community precarity. This was continually reflected upon by long-term Moranbah residents who often complained about the difficulty of recruiting members to social clubs and sport that were once so central to the emplaced community.

As more people choose to commute long-distance, less is invested back into the emplaced community. This is so, both in terms of mine employees' wages when they no longer shop at local stores or imbibe in local pubs, and in terms of the various social activities that were prized as the condition of Moranbah's recent pioneer heritage. The presence of young families, and in particular women's volunteer labour (to be discussed further in the next chapter) were crucial to the pioneer community building project and

the generalized domestication (Hage 2017) through which they relate to an oppositional nature. Thus the precarity of labour for those in insecure jobs translates into a kind of precarity of life for those who manage to hold onto their permanent positions and prefer to live locally, as the social relations and institutions of their community weaken (Kasmir and Carbonella 2008; Sanchez 2016: 13). In the words of Hound Dog, the dislocation of labour in this community makes Moranbah "somewhere you work instead of somewhere where you live."

Conclusion

This chapter has focused on the spatial dynamics of the commodification of extractive labour. It highlighted that the contemporary form of labour dislocation (Harvey and Krohn-Hansen 2018) in Moranbah is not an inevitable outcome of its geographic isolation, but flexibly utilized to fit the demands of Anthropocenic commodification (Malm 2013; Mitchell 2011). The particular spatial organization and modularity (Appel 2012) that are characteristic of the commodification of labour in Moranbah through long-distance commuting implicate the commodification of land. Land becomes a source of minerals to be extracted rather than a socially meaningful location of emplaced community, shifting extraction further from the community building of previous pioneer imaginations. Further, the commodification of money, through the speculative boom and bust of commodity cycles, reinforces the commodification of labour.

As is illustrated by the description of the cyclone which started this chapter, just as the commodification of labour, land, and money reinforce each other, so too do the forms of precarity that result from the experience of this commodification. Contemporary

forms of precarity in Moranbah are crafted by unstable commodity cycles, labour alienation, and extractive but simultaneously domesticating relationships to the environment. Through these, the precarity of labour through casualisation is intertwined with the precarity of emplaced social life. However, these conditions of commodification arise in relation to people's life projects as they shape the conditions to which the increased commodification of labour must respond.

The preference of mining companies to fly an entire workforce into and out of an established town that has plenty of skilled workers to take these jobs has attracted significant political pushback, such that this mandatory FIFO was recently made illegal under the aegis of postcode discrimination. However, as I have argued, even when it is not mandated, the structures of precarity which encourage such practices, and thus allow them to be legitimized as a choice, have already been laid down (Burawoy 1979). Further, despite legislative changes to mandatory FIFO, these long commutes are only an example of a broader trend of labour commodification which reaches its extreme in Western Australia, where Rio Tinto is running its Mine of the Future programme.

Rio Tinto's Mine of the Future is an automation programme implemented in a number of its iron ore mines in the Pilbara of Western Australia. These mines are managed from an Operations Centre in Perth, over 1,000 kilometres away. An Automated Drilling System has been trialled and is expanding, and an Automated Haulage System sees 69 fully automated trucks moving iron ore through the mine before being loaded onto what will be the "the world's first fully autonomous, long-distance, heavy-haul rail network, operating the world's largest and longest robots" (RioTinto 2018). Although as Bear et al. (2015) have argued, commodification is never complete, such robots represent

the closest approximation to it. While iron ore is more amenable to automation through a less complex deposit geology, the technological momentum reveals that the dream of 'The Mine of the Future' is not just a mine without a community but a mine without a human workforce.

Although this form of mining may at first appear to fit with a settler-colonial sense of nature as primarily a resource, in actuality, the sociality and domestication of such extractivism is fundamental to its moral valuation. Thus as mining companies work to distance extraction from the communities built around it, they undermine the particular relationality and co-constitutionality of nature and community that characterizes Moranbah residents' conceptualisations of their labour productivity.

The pioneering construction of nature as adversary is also fundamentally about the construction of social community which overcomes the hardships it presents. There is still human hubris and hierarchy here, but within this perspective is a sense of social and communal benefit through generalized domestication (Hage 2017). The alienation of contemporary mining labour undermines the communal ability to respond to environmental threat and thus the coordination of these two challenges represents a connection between the threat of the environment to that of labour.

This highlights the critical importance of disentangling the specifics of ontological foundations of the Anthropocene. It significantly shows the context specific environmentalism in Moranbah that connects the labour precarity residents face to their particular understanding of natural and social entanglements, which although deriving from modernist foundations are not so simply or entirely defined by them. It also, as I will show in chapter three, helps build an understanding of the tangled anxieties and

moral accusations that link labour and environmental concerns in the rise of populist politics. I once asked a long-term Moranbah resident and unionized permanent employee of the Goonyella open cut mine, "What do you think is the future of Moranbah? What do you hope for and what do you think the reality is?" He responded:

> I hope it continues on. There is no reason why we can't remain a family friendly vibrant community. Simply because there is no other way to make steal, we're 100 per cent coking coal, and the reserves are here. It's just whether people want to be part of the community…I'm not sure what I expect to happen. If we keep electing conservative governments, they'll legislate us out of existence. If we continue to see multinationals rule with an iron fist, they'll break us down. If automation takes hold, it's still 4 or 5 years off, but it will get rid of the need for us.

Although these dynamics are clearly reinforcing the precarity of life—labour and environmental—in Moranbah for many, there are some who manage to benefit from these new spatial organizations. In other words, there are some whose particular life projects are more amenable to these transformations. Precarity as an analytic has a tendency to privilege conservative positions, "in the broad sense of seeking to preserve the status quo" (Millar 2017: 2). This might be considered a positive when it comes to a more conservationist form of environmentalism, as I will discuss in chapter 6. However, in its application to labour, the emphasis on increased precarity for some tends to ignore the many who never had the security of stable Fordist employment in the first place. Precariousness has always been unevenly distributed by geography, race, class, and gender. The increased precarity of the community in Moranbah illustrates such a conservative tendency, as those who are now seeming to lose the stability of their previously emplaced social life are precisely those that have most benefitted in recent

history: largely male, working class, white-settler Australians with heteronormative nuclear families. It is to the gendered dynamics of precarity that this thesis will now turn.

CHAPTER TWO: A Part-Time Marriage: Shift-work, the household, and the feminisation of labour in Moranbah

I met Caitlin, who later became my closest friend in Moranbah, after soliciting research participants through the local newspaper. When I arrived at her home for the first time, I recognized her from the local church and learned that she too was an American. We quickly bonded over our 'outsider' observations of Australian life. Caitlin had come to Moranbah eight years ago in her early twenties after meeting her now husband online. When we first met, her husband, Tyler, had been recently laid off from a permanent job, which meant he took an AU$60,000 pay cut when he moved to a casual position. They used his severance to pay off their debt which they had accrued during the boom times, in a familiar pattern where higher incomes were often accompanied by higher levels of indebtedness.

Tyler was born in the Moranbah hospital in the mid-1980s to parents who had come in the early years of the town. Today, expectant mothers are generally sent to stay in the coastal town of Mackay for the month leading up to their due date. When I first interviewed Tyler and Caitlin, I asked them about why they chose to stay in Moranbah. Tyler told me: "It would be hard to leave. Here I have my home. I have my spot to fill; I have my place." Listening to Tyler, Caitlin offered her own experience expressing her frustration at the lack of opportunities that life in Moranbah offered her as a young mother but resigning herself to her fate with the statement, "but faith always helps us know that we are always where we are meant to be." She then paused, smiled, and uttered, "I wouldn't mind if God wanted us to be in Mackay though," and they both laughed.

Several months later, Tyler was offered a permanent position. However, because it was on a crew in which everyone else FIFO-ed, the shift schedule for the job was fourteen 12-hour days in a row, followed by thirteen days off. Caitlin and Tyler had a three-year old son, Andy, who Caitlin was looking after full time. She was anxious about these 14 days looking after their toddler on her own, but they needed the security of a permanent position. Caitlin struggled adjusting to this new schedule. Her son often only saw his father for half an hour each night. By the second week of 12-hour shifts, Tyler was exhausted and struggled to contribute much to the intimacy of the household.

Caitlin had her own aspirations which did not always fit into the conditions of Moranbah. Unlike for her husband, Moranbah was not her hometown and she was only linked to life in Moranbah through her commitment to her husband and son. Tyler's new work schedule tested the conditions that had previously equated her commitment to her nuclear family with the need to live in Moranbah. When Tyler was working, she and her son didn't get to spend much time with him anyway, so why not move somewhere where she could pursue her own interests? The possibility of Tyler's FIFO schedule made it possible for her to consider moving the family to the town of Mackay on the coast (a two and a half hour drive away) and have Tyler commute back and forth.

She confided in me that she was worried particularly about what she would do to keep herself busy when her son started school. She had never finished university, having followed Tyler to Australia at a young age. She was smart and motivated, and wanted to finish her degree, but Moranbah offered little opportunity for her to grow and to pursue her own goals. "I'm really ready to get to work, even if it's just McDonald's, but there is no childcare. There are only twenty spots for his [Andy's] age group," she lamented.

Although Moranbah offered little in the way of part-time employment or tertiary education opportunities, she was willing to do anything, as the reference to McDonald's was intended to imply. But it was the lack of alternative childcare that she identified as the primary structural constraint to her fulfilment.

As time went on and our relationship strengthened, I began to learn that part of the appeal of moving to Mackay was also a desire to build more stable friendships. She felt she was continually being left behind as her friends moved on. Our own friendship flourished when her previous best friend moved to Mackay and I became a replacement, but my time in town was also limited. One night we went out to the Black Nugget pub and getting along so well, chatting and playing pool, another group of women commented on how we looked like such good friends. Mel instantly responded, "Well, until she leaves me." She continued, "In this town, you have to have friends like you use to have men, a few dates or a one-night stand". Ultimately Caitlin decided against moving, telling me "my marriage is worth more than convenience". They have since purchased a home in Moranbah, had a second child and are expecting their third.

Caitlin's dilemma illustrates the impact of the temporality of work regimes on household and social organization (Thompson 1967: 79, 93-97) and, in particular, the ways in which shift work encourages long-distance commuting. However, her story also shows how the organization of labour intersects with life projects and familial priorities such that, beyond merely responding to the demands of capital, people's desires, morals, and affects also feed back into such structures (Bear et al. 2015; Gibson-Graham 2006 [1996]). Her husband's FIFO schedule—and the potential for him to commute—offered Caitlin opportunities to pursue a different future for herself and her family, even though it

simultaneously put new strains on the household dynamics and discouraged her attachment to the local community. Although Caitlin ultimately decided to stay living locally, for the many who do choose to commute, the pursuit of personal desires and alternative social forms enables a dislocated labour regime which may suit the ends of extractive capitalism.

The changes to the spatial organization of labour recounted in the previous chapter have increased precarity for the emplaced community. At the same time, they have shifted the forms of social organization, presenting new opportunities for some. This chapter explores the intersection of the temporality of labour organization with the pursuit of individual and familial life projects. It follows feminist analyses. These highlight the complex interaction between capitalism and social life and argue that, rather than seeing capitalism as a monolithic force on social organization, non-capitalist relations co-exist and even impact the form that capitalism takes (Bear et al. 2015; Empson 2018; Gibson 1992; Gibson-Graham 2006 [1996], 2011). Such insights have particular consequences for the analysis of precarity, particularly the gendered implications of post-Fordist labour transformation and its social effects.

The chapter will first describe the changes in household organization in Moranbah and show how these reflect the nature of new temporal work arrangements. It will highlight how the changes present new challenges for nuclear households but simultaneously offer new opportunities for alternative household structures and socialities. I will then show what a focus on the household offers for understanding labour-related precarity and the temporality of labour relations. This has particular insights for arguments about the feminization of labour and its relation to precarity

(Standing 2016). I will show that flexibility—as a condition of precarious labour—is linked to familial demands and the dislocation of reproductive labour from the workplace, but this is also made possible as people pursue alternative life projects.

The Male-Headed Household: gendered impact of rotating shift work

As I have described, Moranbah was built to house the families of the men who worked in the newly built open-cut mines. In the 1970s women did not work in the mines themselves. Thus, the structures of employment and the provision of housing meant that wives followed their husbands' work to Moranbah. Women had little opportunity for employment outside the mines, only in the few service industries that developed in the town. It was primarily young families who moved to Moranbah; recently married couples and nuclear families with small children. This earned Moranbah the nickname 'the town without grandmothers' as few extended family members made the move. Early residents told me stories of how their children, when on vacation, were fascinated by all the old people. Such people were rarely seen in Moranbah. This youthfulness is also credited with the growth and enthusiasm with which Moranbah developed a culture of community sports and social clubs. But it also meant limited childcare was available from extended family. This, alongside the lack of employment options, left many mothers working fulltime in the home.

Claire Williams conducted a sociological study of the area in 1975 and 1976, looking precisely at the issues of family life and marriage in Moranbah, which she gave the pseudonym Open Cut. She emphasizes the burden that mining shift work places on female labour. According to Williams, "[i]n Open Cut [Moranbah] capitalism and the patriarchal hierarchy have intertwined themselves into a mutually dependent structure

exemplified by the shift work system. This structure deepens the oppression of working class women" (Williams 1981: 190). Williams argues that the lack of employment opportunities for women and the nature of shift work limited women's possibilities for fulfilling lives outside the home, reinforcing their oppression. Reading Williams' work today, what is striking is that the shift work she describes as causing significant disruptions to social and family life looks positively benign in contrast to contemporary conditions. Today, many people reflect that the shift work schedule of the time was the most amenable to working men's participation in family life.

At the time of her study, only those working on the dragline crews worked continuous rosters. The majority of the workforce was divided into four crews which each worked only eight-hour shifts, rotating through five weekdays of work in morning shifts, then five days of afternoon and five days of evening shifts. This temporal work regime was compatible with the structure of the nuclear family that was the norm in Moranbah. This included the active community social life of regular Saturday and Sunday weekends as well as the privileging of heteronormative cohabitating nuclear families, with young school-aged children and mothers who stayed home.

By the time Katherine Gibson came to study the area in the late 1980s (Gibson 1991, 1992, 1993), a drop in the price of coal caused a restructuring of the industrial award—the agreement which set working conditions and entitlements in the mines. The new award went into effect in 1988 and was designed to maximize profits. It led to the adoption of the continuous production schedule on the mines and the adoption of the seven-day roster. Now the workforce, still divided into four crews, worked seven consecutive days of either morning, afternoon or night shifts of eight-hours each. The

crews then rotated through this series, with a day off in between and four days off at the end of the cycle (Gibson 1992, 1993). This led to the loss of a traditional week and weekend for mine employees. In fact, it was designed to enable a majority of working days on weekends, as weekend hours were paid double. This meant a substantial pay rise for miners, garnering support for the changes from the workforce. However, this shift schedule put miners out of synch with the schedules of their households.

The loss of the weekend was felt profoundly, as much of family and community life revolved around shared weekend activities, primarily sport. Taking men's weekends away further burdened the wives of miners since it further reduced their husbands' contribution to family and social life. Gibson identifies how this put a strain on the relationships in the family, occasionally leading to their breakdown (Gibson 1992: 46). The expectations of marriage included companionship, the distribution of specific household tasks to men, and the presence of fathers in particular community spaces, such as at football or cricket matches, but these expectations became harder to meet. Further, one of these important expectations was enabling women free time to contribute to community work and volunteering which went to building the strong sense of a pioneering community described in the previous chapter.

However, when comparing this to the continuous rosters of today, in which workers now work 12-hour continuous rotating shifts, the dynamics that Gibson and Williams identify have worsened further. The bust in the mid-1990s led to the adoption of the 12-hour shifts that are common in the industry today. The 'six and six' is a common variant, which is three 12-hour day shifts, and then three 12-hour night shifts, with a so-called pyjama day in the middle. A pyjama day is the 24 hours between the end

of the previous day shifts and the beginning of the next round of night shifts where the worker has to adjust his sleeping schedule. After these six days of working, he had six days off. Another common shift is called the lifestyle roster, also known as the 'divorce roster' because of the strain it puts on families. It is a 5/4/4/5 roster, that is, five day or night 12-hour shifts on, four days off, four day or night 12-hour shifts on, and five days off. The main legitimation of these rosters is that they maximize productivity, as 12-hour shifts require one fewer work crew changeovers and thus there is less downtime for the machinery. However, the rotating nature of the shift schedule through days and nights is less clear from a productivity perspective. It was often described to me that this was an egalitarian measure, as it meant everyone had to do their share of the dreaded night shifts (cf. Smith-Rolston 2014).

To most, although the booms and busts mark important points on the community's historical timeline, the adoption of the 12-hour shifts is the major historic turning point. When the early residents told me stories about the "good old days" they often prefaced these with something like, "this was before the 12-hour shifts". Although men were able to contribute less when the mines moved to the seven-day continuous roster through lost weekends in 1988 (Gibson 1992, 1993), they still had the ability to take part in social activities during the days they worked. With the eight-hour shifts, 16 hours of their days were still theirs to distribute between sleep, family, and social activities. With the 12-hour shifts there was now no time for doing much more than sleep and commute during non-working hours. Similarly, the long blocks of working days mean that exhaustion builds, and despite being home after work, miners have little energy to take part in household activities. This makes co-habitation during working days feel

unimportant, and thus makes long-distance commuting a smaller sacrifice. A woman whose husband worked a '7 and 7' another common shiftwork variant with rotating weeks of day and night 12-hour shifts, described how she often struggled with whether living in Moranbah was worth it. She didn't particularly enjoy life in the town, and was doing an undergraduate degree in psychology online. She would have preferred attending classes, but she also wanted to live with her husband. However, she also recognized that this was more a personal preference than an obvious choice. She told me:

> The last two days of his seven, he's not worth talking to… I'm not going to say it's the same as having him gone, because at least I know he is down the hall if I need him. But in terms of the day to day emotional support, he's not there. Then after his seven days working, his first and second days of rest are pretty much a wash as he's just recovering. But the next five days are good.

> Such shift schedules, as Jessica Smith has described, alter kinship relations, as work crews on similar shifts become the basis of social life as they spend much of their time together and have schedules that align more closely than those of one's nuclear family (Smith-Rolston 2014). This time spent away from family, and particularly the lack of shared meals and simple routines of everyday life, puts similar strains on the nuclear family in Moranbah. She, however, focuses more on the work crews themselves, analysing how the shared shift schedules undermine gender difference in the mixed-gender crews because of the shared hardship and development of kin-like relations (2014). In Moranbah, in contrast, significantly fewer women work in the mines and particularly in the operating and technical jobs which face these challenging shift schedules. In 2016, only 11.6 per cent of the coal mining workforce in Australia was female. Only 8 per cent of machinery operators and drivers were female, and only 3.4 per cent of labourers and 2.5 per cent of technicians or 'tradies' in Australian parlance.

Women are primarily employed in clerical and administrative roles, where they represent 76.3 per cent of these positions, and constitute 100 per cent of the workforce in 'community and personal services' in the coal mining industry (Workplace Gender Equality Agency 2018). The majority of women who work in the mines, then, are still not working on shift schedules, as most administrative roles work more conventional hours (and a number of operators and drivers may be working the 'mummy shift', which I will describe shortly). Therefore, the impact of continuous rotating 12-hour shift schedules is significantly gendered and often reinforces already existing gendered divisions of labour within households.

These shift schedules particularly strain families with children, which Jessica Smith also finds in Wyoming (Smith-Rolston 2014). First, they make it difficult for the partner of the miner – primarily the male miners' wife—to take on any employment. Although there is little work available outside mining, for those who might find work in the local service industries, it becomes difficult to manage the family schedule. And for the few families where both partners work, either one or both doing shift work in the mines, outside childcare is necessary. As I mentioned there is a lack of extended family networks in Moranbah and thus a lack of kin who might otherwise have been able to look after children. There are also few childcare centres in Moranbah and few places for pre-school aged children. Further, the rotating night and day-shift work makes the regular nine to five hours of even the childcare centre incompatible with two shift-working parents. The only real option for those with two mining parents is to hire live-in *au pairs*. This makes Moranbah the host of a constantly rotating population of young men and women from Europe, the US, and Hong Kong, working in Moranbah for six months at a

time. This is however prohibitively expensive for most and the lack of permanence this means for children is also viewed negatively by many.

This lack of childcare and the familial dilemmas that shiftwork presents, reflect the complexity of decision making faced by Caitlin as described in the introduction to this chapter. However, the new conditions of labour, particularly the concentrated blocks of working hours, also present the opportunity to commute long-distance for the mining spouse. This has presented a new set of possible strategies for household organization.

Gibson returned to her earlier work in the region in her writings with Julie Graham, republishing her 1992 article on Moranbah with updated commentary in *The End of Capitalism (as We Knew It)* (2006 [1996]: 206-237). Crucially, the work on miners' wives is intended to highlight the coexistence of non-capitalist processes with those of capitalism, and in particular the efficaciousness of the household on industry organization. She uses the concept of the feudal domestic, although recognizing the problematic historic associations of the term 'feudal,' to emphasize this particular non-capitalist formation within mining households. The terminology is less critical than the particular point which the analysis is making regarding the role of the household.

Gibson-Graham (2006 [1996]) see divorce and men's increased absenteeism as a potential form of class struggle as women react to the increased burden that the seven-day roster places on them. Their main evidence for this argument is that the seven-day roster was accompanied by increased absenteeism. They deem this a sign of women's successful imposition of demands on their husband's time over his waged employment. They also argue that the seven-day roster is increasing the incidence of family breakdown and divorce.

Gibson-Graham (2006 [1996]) argue that this shows the impact of household organization and non-capitalist class processes on the form industrial labour takes. Particularly, they point out that mining companies in the region were beginning to question whether the seven-day roster was sustainable with these high absentee rates. This was a prescient observation, as the more recent forms of labour spatial and temporal organization have now similarly reoriented to these tensions. However, rather than returning to shorter work hours more amenable to the co-habiting nuclear family, the mining companies have opted instead for concentrating working hours and days to encourage long-distance commuting.

The links between the adoption of the seven-day roster and the more recent adoption of FIFO is rather direct. Firstly, the major benefit of FIFO to the mining companies is increased production from reduced absenteeism. Secondly, although not always taking the form of divorce or pathologized as family 'breakdown', the co-habiting nuclear family is no longer the only form of social organization for mining employees as long-distance commuting becomes more common and many women refuse the perceived limitations that life as a housewife in Moranbah entails. The choice to move—a choice structured by the temporal pressures and mobility possibilities of contemporary Moranbah—is often taken as a result of a wife's demand to live elsewhere. This insight raises a discomforting question. Is the adoption of FIFO and other long-distance commuting not only the newest form of labour alienation, but also simultaneously the end result of miners' wives' successful class struggle against the oppressive temporal and spatial conditions of a Moranbah marriage?

Precarity, Gender, and the Household: a feminist contribution

The question of whether FIFO might be the result of women's 'class struggle'

gets at the heart of a problematic tendency in precarity studies. Precarity successfully

connects the loss of stable Fordist employment to a more generalized insecurity deriving

from the affective loss of stable futures in the Anthropocenic present. However, the

concept also has a tendency to privilege the status-quo. As analyses of precarity lament

the loss of stable Fordist employment, they can reproduce the power dynamics that were

part and parcel of the social structures around this social and political formation,

particularly racial, class, and gendered inequalities (Millar 2017). This is particularly

evident in the relationship of the gendered household in Moranbah, in which the stable

employment of the early years of the town were dependent on the existence of male

wage-earner headed nuclear households. Now, the opportunities of long-distance

commuting and the temporality of concentrated blocks of work and leisure schedules are

beginning to reorganize forms of sociality and family. However, this is not a uni-

directional process, for they are entangled with the pursuit of life projects, particularly of

women who face new opportunities and constraints.

The analysis of E.P Thompson (1967), which showed how the organization of

time under waged industrial labour crafted particular worker subjectivities, is reflected in

how "the transition to precarious labor in contemporary capitalism is also a process

involving the transformation of desires, values, and arts of living" (Millar 2014: 45). Just

as the power dynamics of industrial temporalities were not gender-neutral (Parry 2005),

nor are the gendered experiences of precarity in post-Fordism (Federici 2008). The

particular arts of living as people respond to industrial labour feed back into the form

which such industrialism takes. Social and household organization thus have a particular impact on the way in which capitalism is organized. This relates to broader feminist critiques which have challenged assumptions about the unidirectionality of economic change. Feminist-informed analyses of capitalism have shown how work regimes not only create subjects, but subjects, including women, also create and influence the particular forms that capitalism takes (Bear et al. 2015; Gibson-Graham 2006 [1996]).

The household is a crucial site for recognizing the mutually constitutive relations between social life and capitalism or, as Melhuus puts it, a double focus, "on one hand, on those relations and practices that contribute towards reproducing a particular economy (through relations of labour); and, on the other, on those relations and practices that contribute towards creating a livelihood" (Melhuus 2018: 84). The household has historically been important in anthropological analyses to describe the basic social unit of production/reproduction and consumption (Moore 1994; Yanagisako 2001) and is central to Willams'(1981) and Gibson's (1991, 1992, 1993) work in Moranbah where it can help to reveal the gendered divisions of productive activity and, in particular, the way in which political economic conditions are interlinked with the everyday and affective (Ahearn 2018; Melhuus 2018). The particular form of the nuclear household linked to Fordist employment in Moranbah is now being reworked. Changing structures of employment – particularly long-distance commuting and shift-schedules incompatible with family life – interact with women's life projects. This does not occur without pushback, however, as the normative form of a co-habiting nuclear family is much debated within the community.

The new options that FIFO and DIDO present to wives and single women have brought many of the underlying moral assumptions and normative expectations of women's sacrificial role in the nuclear family into question and negotiation. A perspective which privileges 'the marriage' over the particular demands of the wife is echoed in sentiments that I heard over and over again from wives in the community who had tried FIFO and moved to Moranbah to reunite with their husbands. A volunteer at the radio station told me, "I didn't get married to have a part-time marriage." A teacher married to a miner explained to me, "in my experience from watching many friends, 18 months is the pressure point. Either the marriage breaks up or people stop doing it." A South African woman who had moved to Australia with her husband 20 years ago, described how when they stopped doing FIFO and moved to Moranbah together, it took them several months to get used to each other again, saying "It's impossible to have a good marriage that is two weeks on, two weeks off".

These perspectives reflect a moral privileging of the nuclear family and particularly the cohabitation of the married couple above the individual concerns of the wife and mother. As Williams suggested, "[m]oral values about love and duty, and a socioeconomic system which barely provides alternative means of support for any women with dependent children effectively lessens women's capacity to revolt" (Williams 1981: 191). The possibility of FIFO and DIDO means that the socioeconomic system in which decisions to live in Moranbah take place has changed drastically. It has enabled women to demand their own lives elsewhere, and thus the decision to live in Moranbah comes not *only* from the socioeconomic conditions but also women's practical and moral preference for the cohabiting nuclear family.

Instead of purely being dictated by socioeconomic and material conditions, choosing to stay in Moranbah is saturated by moralized understandings about the proper form of the heteronormative nuclear family and women's role in it. The possibility of FIFO and DIDO bring established norms into view and have generated local debate about the normative marriage (cf. Ahearn 2018). Rather than merely creating precarity, as happens in the case of the emplaced community, these forms of mobile labour reveal the unequal distribution of precarity within the community, particularly for women. This was summarized by a middle-aged male miner who told me while at a group dinner, "We've seen lots of break-ups in our friend group from FIFO. The wife gets her own life in Mackay." Here, it is a wife's "own life" that creates the problem.

Butler (2009), has most directly approached the relationship between precarity and gender, through her aligning of precarity with the differentially legible body. To Butler, precariousness is an existential and shared condition of insecurity, but one which is unequally distributed, particularly amongst variably intelligible subjects, those who are or are not deemed worthy of recognition as subjects, including via their gender performativity (2009). Here, the role of women in Moranbah, as particular subjects - that is, as housewives and mothers - is in a period of transformation. The normative nuclear household is being undone and refigured, as norms are made and remade through "a process of repetition that is structured by a complicated interplay of obligation and desire, and a desire that is and is not one's own" (Butler 2009: xi). As wives and mothers negotiate the new conditions through which they can structure their households, the performativity of the gendered expectations of motherhood sometimes come into conflict, and other times reinforce, their desires for their "own lives".

As mentioned previously, because my research was based in Moranbah, I did not know families with children who enjoyed FIFO or DIDO lifestyles. It is likely that such livelihood strategies did work for some. However, I did know many single women who benefitted from FIFO and DIDO, for the structure of the male wage earner and female caregiver is no longer universal in Moranbah. Young women are able to take advantage of the labour shifts mentioned in the previous chapters, as permanently employed unionized (historically male) employees are being replaced by contractors and a more casualised labour force. This presents opportunities for women to break into the industry and benefit from the high salaries and extended periods of leisure time, even if these new jobs are more precarious than their Fordist counterparts. As Standing has described in the context of the growing precariat, "[i]n each group, there are 'grinners,' who welcome precariat jobs, and 'groaners,' obliged to take them in the absence of alternatives" (2016: 69).

The Feminisation of Labour and New Forms of Flexibility

Although women currently make up only a small percentage of the mining workforce, this number is slowly increasing. BHP, a main employer in the region, has set itself the goal to have gender equity in its workforce by 2025, a goal it is still far from reaching. However, as a result of such policies, many, particularly young women, are entering the industry. I came to know some of them through joining a women's Australian Rules Football team, the Moranbah Bulldogs. Some of the young women on the team worked as teachers or nurses in the town, but several others also worked in the mines. Most of these were apprentices learning a technical trade in the mines, such as training to become electricians or diesel mechanics. Quite different to the married women with families,

these young women largely embraced their shiftwork schedules. Of course they sometimes found it hard to manage the physiological rhythms of rotating day and night shifts, but the long blocks of time allowed them to travel and to pursue their other interests. They were able to maintain lives and commitments elsewhere, while earning substantially higher salaries than those that would be available to them in other industries and other locales.

One of my teammates, Clara, mentioned in the introduction to Moranbah, turned 21 while I was in the field. Clara was an apprentice electrician who worked at one of the few underground mines.[15] Clara was petite with long blonde hair, blue eyes, and a delicate face, with physical attributes she intentionally contrasted to her occasionally brash demeanour and love of getting her hands dirty. She called herself the tomboy of the family and she enjoyed playing up the contradictions of her appearance and her employment, often posting selfies on social media of reflections of herself in the mine bathroom mirror. Wearing her high-visibility uniform and covered in black dust everywhere except where her hard hat, safety goggles and face mask blocked the coal dust and diesel exhaust that covered her, she reproduced the seductive pose and pursed lips of a more conventional selfie. Playing with such gendered expectations was common amongst female miners, although there were a variety of strategies that women deployed, emphasizing and downplaying certain traits usually associated with male and female identities (cf. Smith-Rolston 2014).[16]

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[15] Although open-cut mines predominate the industry, different geologies mean that some deposits, particularly deeper coal seams, are more efficient to mine through underground methods, in this case, longwall mining. Modern underground mines are also highly capital intensive, like their open-cut counterparts.

[16] Another young female friend who worked in management reflected her strategy for dealing with her job's requirement that she "boss around" the older male miners, saying, "I get them to

Clara's apprenticeship in the mines enabled her a level of financial stability unusual to women of her age and secondary school level education. She already owned her own home in Mackay, making more than AU$80,000 a year as an apprentice electrician. She travelled back and forth between her home in Mackay and the mine camp where she lived in Moranbah. She enjoyed the spread of her life across these two sites. Her parents lived in Mackay, and her sister Beth lived in Moranbah, driving the almost two-kilometre-long trains, transporting 8,500 tonnes of coal each from the mines to the coastal ports. I once asked Clara why she was training to becoming an electrician. She told me that it was a skill that she would be able to take anywhere. She thought someday she might like to move to America. Unlike many Australians who envision American futures in California, Clara dreamed of moving to the American South. She was an avid country music fan and would often ask me to explain lyrics in her favourite songs. As she explained mining terminology to me, I explained the texture and taste of American soul food.

Although Clara, her sister, and their parents all worked in the mining industry, she did not imagine her long-term future in the mines. She saw the skills, training, and high salary of her electrical apprenticeship as an opportunity to pursue many different possible futures. Her sister, Beth, who drove coal trains, similarly often talked of someday moving elsewhere. Her skills would easily translate into more urban settings, as she could also drive commuter trains. She was particularly interested in moving to Melbourne. She

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like me by baking for them. They're never going to respect me, so I have to get them to like me."
She would regularly bring in her home-baked goods. I shadowed her through a workday and saw the success of her strategy clearly. As she instructed a group of male miners that the road they were making was too close to the edge of a cliff, they were clearly annoyed. But the tension was broken by one of the male miner's joking, "Alright we'll move it, but only if you promise to bring in those chocolate bickies [biscuits] again."

liked art and fashion and envisioned her future in a place where she could enjoy more of these passions. However, because of the high price of real estate in Melbourne, she thought it best to earn more money working in the mines to save up for a house that she would someday buy in the city.

Another member of the football team, Mary, worked in one of the open-cut mines. Although she was in a long-term partnership, she had no children. She moved to Moranbah from Tasmania during the boom times around 2011. Her male partner was a local Moranbah native and did not like to travel, but she was an avid voyager and would often go without him. The shift work schedule enabled her to concentrate her days off and travel internationally. On a 'six and six' schedule for example, taking only six days of annual leave meant that she could have 18 days off in a row, perfect for the international trips she enjoyed. While I was conducting fieldwork she spent three weeks hiking in Peru. She went scuba diving in Malaysia, and she was planning a safari in South Africa. She had been drawn to working in the mines because of the high salary and decided to stay because of the schedule. Her mining schedule enabled her to pursue her passion for travel. She recognized that her career in mining might not last, but she wanted to take advantage of the time-off that her schedule currently offered her to see as much of the world as she could. She often talked about checking countries off of her bucket list. This was, of course, in reference to places she wanted to see before she died. However, she emphasized that it also applied to her life before children, telling me that she wouldn't always find it so easy to travel the world.

A third friend, Emily, worked as a nurse but FIFO'ed from Brisbane to work at the same underground mine as Clara. Emily was drawn to working in the mining industry

because the pay was significantly better than it was working in the hospitals in Brisbane. However, she kept her nursing job at the hospital in Brisbane, cutting back her hours there but maintaining enough to keep that job. It was a permanent position and she wanted to have it to fall back on because her job in the mines was casual. Despite her mobility, she played football on two teams, one in Moranbah and another in Brisbane, depending on where she was for practices and games. She was an exceptional player and hoped that she might catch the eye of a recruiter for the new professional women's league. Emily was an open lesbian, often referencing her sexuality and dating other women who worked in the mines as well as in Brisbane. Homosexuality, particularly lesbianism, was not exceptional in Moranbah, particularly amongst the young women who worked in the mining industry, and as far as many confided in me, did not elicit the strong condemnation or discrimination that might otherwise be expected in conservative rural areas.

These women's working careers were possible because of the specific mobility and temporal flexibility that their lifestyles enabled. In contrast to the young families with children in Moranbah, these women strategically used the opportunities the mining industry offered them without being tied to long-term futures in the town or industry. Most of them, furthermore, worked in parts of the mining industry that would give skills transferable to other industries. They chose to learn trades or drive trains that they could use elsewhere. They did not, for the most part, imagine a long-term future in Moranbah, but used the opportunities of working in the mines to prepare for futures in other settings. Although the loss of the primacy of the co-habiting nuclear family may present a threat to the emplaced community, it also offers new potential socialities. As the workplace

kinship Jessica Smith identifies, the loss of sociality within the nuclear family does not mean pure alienation as people adapt creatively to these conditions (Smith-Rolston 2014).

Allison's analysis of social precarity in post-Fordist Japan particularly resonates with the changes in Moranbah, in which the heteronormative nuclear family of corporatist Japan has been challenged through the loss of stable employment and thus resultant forms of valued sociality linked to this household organization (Allison 2012). She draws on Lee Edelman's concept of "reproductive futurism" (Edelman 2004) to refer to the way in which Fordism "attaches—and delimits—sociality to the heteronormative family and home" (Allison 2012: 351). Sociality, however, can be much more broadly defined than through the male-headed nuclear household, and as Allison argues, "[a] reconstitution or shoring up of the family then—of the 'old' kind at least—is not necessarily the solution to precarity of life" (Allison 2012: 361). These young women's flexibility and lack of cohabiting nuclear household and children does not mean that they were socially alienated. Rather they established sociality through a patchwork of relations spread out through geographic sites, through travel or through friendship and workplace relationships. This reveals how the alienation of labour is never complete, as capitalism and the specific forms it takes are always interacting with the particular pursuit of desires within constraints.

This flexibility and mobility which presents opportunities for alternative socialities for these young women, also makes them more compatible with the flexible labour demands of the mining industry. They become complicit in the particular alienated form of labour that Anthropocenic capitalism privileges. Kathleen Millar's analysis of the work of a female *catador* in Rio de Janeiro, describes what she considers to be two quite

different forms of 'flexibility'. One is the flexibility of a "radically individualized" worker who is able to respond to the flexible demands of neoliberal capitalism, and whose flexibility "arises from the worker's alienation from her social world" (2014: 46). She contrasts this with the flexibility of the *catadores* which she describes as "relational autonomy," for the way in which their desire for flexibility derives from their "sociality, intimacy, and relations of care" (Millar 2014: 47).

I do not believe it is so easy to distinguish between these two forms of flexibility. The alienated form of autonomy that Millar identifies may be preferred by capitalist employers, but the process of alienation is never complete, and even this alienated autonomy when actually lived through human labourers is always implicated and tied up in other desires and socialities. Even thinking of the young women working in Moranbah who are mobile and have few emplaced familial obligations, they are drawn to mining because it allows them to travel or to maintain relations in dispersed locales. Their sociality is thus less emplaced, but it is far from alienated. Similarly, they often work in these jobs as preparation for social futures, buying homes for the families they do not yet have, preparing for careers which they will use to support family and community.

However, Millar's dual concept of flexibility (2014), points to what is a complex complicity between post-Fordist precarity and its gendered implications. The gendered expectations on women to be caregivers makes the intermittent time demands of precarious employment appealing. One instance of such relational autonomy in the mining industry is the rise of the so-called 'mummy shifts.'

The phenomena of the 'mummy shift' illustrates the ambiguous nature of the benefits women derive from working in the mines, but also their role undercutting

previous labour entitlements, and thus the benefits of their labour to mine industry profitability. The 'mummy shift' is an option for mothers of school-aged children to find employment in the mines and represents the kind of 'flexible' employment of Millar's "relational autonomy" (2014), in which flexible work arrangements accommodate other caregiving demands on women's time.

According to gender workforce statistics, despite being underrepresented in other mining jobs, 65.5 per cent of *part-time* operators and drivers in the mining industry in 2016 were women. This group it can be assumed is largely made of these 'mummy shift' employees. The 'mummy shift', is more neutrally called the 'crib relief shift'. 'Crib' is the term for a meal and the associated break from working. Regular mining operators take staggered crib breaks, in which their machines would otherwise sit idle. Instead, these workers on crib relief operate the machinery while the regular driver is on break, and then rotate through to the next worker going on his break, and so on. These shifts during the day are usually six hours long, often from 9:00 AM to 3:00 PM, enabling mothers who take this work to be home with children after school, hence the name of 'mummy'. Most of these jobs are not permanent (Peetz and Murray 2010). While this seems to be a perfect solution to the lack of part-time employment options for mothers in Moranbah, it also means that instead of hiring permanent employees for this work, the coal-mining companies are able to utilize underemployed women to fill these spaces. Peetz and Murray (2010) in their study of women in the Bowen Basin mining industry quote a union representative that they interviewed about these shifts. He said:

> The company, they had this big idea that they would utilize this big pool of women in town to get them out there to do the crib breaks…so the coal oilers would keep on running all day. We wouldn't support it because we had concerns that there were

people in town that were more deserving of getting trained, whether they be kids that had missed out on apprenticeships, kids that couldn't get traineeships, men that were working on the council or people who should really be given first chop at it, these jobs. (quoted in Peetz and Murray 2010: 253).

In the union representative's thinking, those deserving of getting trained are men, or gender-neutral 'kids', although it would not be too much of a stretch to imply he meant young men. His reference to "men that were working on the council" makes this particularly obvious, since the council—referring to the local government—is generally considered to be a female space. What becomes clear in his remarks, is that married women are least deserving (Peetz and Murray 2010: 253).

'Mummy shifts' are a practice that optimizes profits for the mining company and allows the continuous operation of machinery without growing its permanent workforce. The flexibility of working arrangements that encourage female participation work to the industry's advantage, allowing companies to grow and shrink their workforce with the needs of the constantly fluctuating extractive economy.

Simultaneously, the 'mummy shift' represents opportunities for women to disrupt the gendered distribution of labour that this union representative seeks to protect, in which wives and mothers belong in the home. It presents opportunities that many desire for work outside the home, but it also increases the burden placed on women, as they are often still expected to maintain their roles as primary care-givers and household labourers even as they contribute wages to the household. The need to contribute wages to the family comes not only from changed social expectations in which women's participation in the labour force is celebrated, but also from the increasing precariousness of their husband's waged labour, which their own employment may ironically enhance. As one

woman I talked to put it: "Even though my husband makes a good salary in the mines, we spend as if we only made my salary, because we never know if he will have work tomorrow."

The 'mummy shift' seems to resonate with the "feminization of labour" defined by Standing as having "a double sense of more women being in jobs and more jobs being of the flexible type typically taken by women" (Standing 2016: 70). Standing identifies three main contributions to the feminization of labour which seem to match quite closely with the conditions in Moranbah. First, he describes "the demise of the 'family wage,' a feature of the industrial age and the compact between capital and the working class" (Standing 2016: 70). While wages are still high in Moranbah's mines, the structure of work is no longer crafted in such a way as to support the structure of a cohabiting nuclear family. This disrupts the pattern of the industrial-age family while the lack of security of employment induces families to distribute the responsibility for wage provision.

A second aspect of the feminization of labour is the changing nature of work, where today "more labour [is] in services, where manual strength [is] not required" (Standing 2016: 70). Here, the mechanization of contemporary mining undermines previous arguments that women's lack of physical strength limits their participation in mining. Of course, they never made particular sense as women and children have a history of gruelling work in mining (Freese 2004; Peetz and Murray 2010; Scott 2010: 65; Smith-Rolston 2014). However, post-Fordist precarity has been associated with the rise of immaterial labour, in which labour does not make objects, but ideas, information and affect. Precarity is thus rooted in this transformation because this new productive form requires different structures of labour, including different temporal regimes, in

which "its rhythms of work are much more intermittent, fluid, and discontinuous" (Federici 2008: np). This flexibility of precarious employment is often associated with women, particularly through the kind of relational autonomy discussed by Millar (2014). Here, other demands on women's time, particularly childcare and elderly care, mean that jobs with more intermittent temporal regimes are more appealing to women.

However, this form of flexibility, like that of the 'mummy shift', is quite different to the flexibility that I have described for the young women that work in the mines full time. Aside from the 'mummy shift', most jobs in mining are not more flexible, rather the temporal demands of rotating shift work are extremely rigid. Instead of jobs being flexible, workers must be flexible. Thus, the flexibility of precarious labour in Moranbah serves mainly to privilege childless young people who are mobile and have fewer demands on their leisure time.

This is not necessarily gendered, as single men and women can fit into these same mobile subjectivities, except that men tend to be able to maintain more of this flexibility once they have children, whereas women's mobility is more directly affected by childcare responsibilities. Many men continue to work in the mines on rotating shift schedules after they have children, but many women leave the industry and even the young women I met, mostly choose to learn trades and professions that they can transfer into other industries, which will be more amenable to their future families.

The continued incompatibility of reproductive labour with post-Fordist labour conditions highlights that the appeal of rotating shift work may be more linked to a particular moment in young women's lives than to their more permanent lifestyle choices. Not all will—or plan to—have emplaced nuclear families, but some do and

hence recognize the temporary nature of their mobility. For example, the mobility and flexibility of the young women I described who manage to pursue alternative socialities is just a snapshot which exists in the ethnographic present. In the two years since I first met them, Mary has had her first child, though she still refuses to marry her partner and continues to travel with her young daughter, although to nearer destinations. Clara got married and subsequently divorced and has moved to Brisbane. Emily has stopped long-distance commuting after losing the mine job that she realized was never secure. I find this temporally-circumscribed appeal of rotating shift work to a particular moment in young women's lives particularly complex in thinking about the end of "reproductive futurism" (Edelman 2004) and the alternative socialities to the heteronormative nuclear family that the flexible lives of the young women I describe represent. The loss of reproductive futurism and the rise of sociality outside the heteronormative household in which the physical process of reproducing the labour force through childbirth and childrearing is increasingly dislocated from the sites of capitalist production, may not represent precarity for those who choose not to reproduce. However, within social life, such loss may simultaneously represent the precarity of human life itself. It is worth noting the coherence between the rise of immaterial labour and the post-human labour force envisioned by the fully automated 'mine of the future' discussed in chapter one (Federici 2008).

By way of conclusion, the story of a fourth young woman will illuminate the way in which different life stages play into the organization of long-distance commuting and the particular relationship between reproductive labour, rotating shift work, and personal and familial desires. Stephanie was already visibly pregnant with her first child when we

met. Her husband worked on the mines, but until recently had DIDO'ed back and forth to Hervey Bay, an unusually long eight and a half hour drive from Moranbah. When Stephanie became pregnant she wanted to be with her husband. The couple decided that she would move with him to Moranbah hoping he would be able to share more in the experience of her pregnancy, and they could live together as a family. They rented a studio apartment in Moranbah. However, Stephanie wasn't accustomed to living with her husband while he worked and thus was naïvely unaware of the difficulty of living with a rotating shift worker. Sharing a studio apartment with him when he was on night shifts and thus had to sleep during the day, meant she had to be silent all day or get out of the house. Moranbah is often too hot to spend much time outside. Stephanie eventually gave up and moved back to Hervey Bay before she gave birth. She realized it would be better to be closer to her parents who could help with childcare, and her husband returned to long-distance commuting. Although her pregnancy led her to attempt to establish the normative co-habiting nuclear family she had envisioned, her ideal family form soon gave way to the practical constraints of rotating shift work and the spatial opportunities offered by long-distance commuting.

Again, these young women's desires, their particular life projects, are part of what enables the growth of FIFO, the dislocation of labour, the increasing precarity of the community and the instability and contingency of employment in the mines. Industrial organization does not simply impose subjectivities on labourers, but the conditions of employment are always entangled in the desires and life projects of men and women, feeding back into the form that industry employment can take. Women's recruitment into the mining industry and their role in negotiating the organization of labour indicates the

ambiguous relationship between women's agency and its appropriation by capital. Although many young women find opportunities working in the mining industry, or prefer the long-distance commuting of their husbands, they also serve to undercut some of the protections of previous stable Fordist employment that their older male colleagues or fathers enjoyed. Their own desires thus are interlinked and co-constitutive of the forms that extractive capitalism takes in Anthropocenic conditions.

Conclusion

The emphasis on precarity to describe the changing conditions of labour has a conservative tendency, in that it partially draws on a nostalgic image of Fordist employment which ignores the racial, classed, and gendered inequalities on which it rested. The lamentation about the loss of the gendered relations of Moranbah's early days reflect this particular conservative tendency. In the first decades of the town, women were primarily wives with little opportunity to pursue their own desires outside the accepted community spaces attached to the frontier building of sport groups and social clubs. As Gibson-Graham (2006 [1996]) argue, women fought against the particular constraints of married life in Moranbah, in which they had few opportunities as a result of the shift work schedule and the spatial isolation of Moranbah. Through a form of resistance that caused increased absenteeism and the rise of family breakdown, wives in turn affected the form that capitalism took as the earlier shift schedule was not amenable to either maximizing mine profits nor family life. Thus, women desires for lives outside of Moranbah helped enable the adoption of the FIFO and DIDO commute, presenting a workforce of both married men and single women willing to work under these conditions.

This was of course not devoid of forms of structured coercion that I presented in the previous chapter. However, the pressure of the 12-hour rotating shift and the concentration of work and leisure time that enable long-distance commuting have presented new options for women as they can organize their households around DIDO or FIFO.

Now that many more families are taking up long-distance commuting strategies, how do we make sense of this phenomenon? Is it that, as Gibson-Graham (2006 [1996]) suggest, divorce and family dislocation constitute a type of successful class struggle against the oppressive conditions affecting women in Moranbah? Or are families the victims of increased labour alienation, forced to structure themselves to fit the demands of extractive capital? In this chapter, I have argued that both are true to a degree. The particular conditions of labour organization in Moranbah are a *co-constitutive* result of personal desire and familial life projects within structured policies and preferences of extractive capital.

Single, and particularly childless, young women and men are able to utilize their personal flexibility and mobility to take advantage of the opportunities the rotating shift work schedule and long-distance commute presents them. This allows them to form alternative socialities to that of the co-habiting nuclear family. However, if their desires for families or the physical conditions of pregnancy and childcare reinforce continued gendered divisions of labour, women face greater hindrances on their mobility. Although increased precarity has been linked to the feminization of labour (Standing 2016) through the rise of immaterial labour and new irregular temporalities, this flexibility is quite different to the type of flexible labour demanded by the rotating shift schedule of

Moranbah's mines. Instead of flexible labour that allows for the maintenance of social

relations and particularly childcare—their 'relational autonomy' (Millar 2014)—the new

form of precarious labour in Moranbah does not allow for flexible work arrangements.

Rather, rigid work arrangements demand flexible people, thus upsetting established

household organization and gendered divisions of labour.

The loss of male stable employment has not necessarily directly translated into

more opportunities for women, but new opportunities for flexible people. Although this

presents childless women with opportunities, it places a greater demand on women when

they become mothers. It is a complex distribution of precariousness (Butler 2009) that

interacts with the specific life projects of people in specific contexts. Some of them

benefit from these dynamics and others do not, yet a certain element of precarity seems to

remain. Futures are still not envisioned in an emplaced community of Moranbah or even

the coal industry for most women. Those who benefit from these conditions are not

achieving a new form of stability. Rather, they have life projects that enable them to

manage this precarity, for the time being.

CHAPTER THREE: Blaming in the Boom and Bust: The figures of the Cashed-up-Bogan and the Real Estate Speculator

This chapter looks at the moral accusations that have accompanied the political economic conditions of the mining boom and bust in Australia. I introduce the figure of the 'cashed-up-bogan' (CUB), a new stereotype attached to contemporary miners which emphasises their greed and consumption over their physical and communal labour. This figure reflects anxieties about Australia's reliance on commodity production in the context of the mining boom and bust as well as global climate change. It also serves to morally excuse the increased precarity of coal miners in the current mining bust. This representation, however, is countered by locals who maintain a strong connection to the labour of mining and their emplaced community despite their increased precarity. Moranbah residents are also involved in their own moral debates over who to blame for their precarity. These invariably take place in the context of such national discourses, but they more specifically reflect local conditions.

Emplaced locals in Moranbah are not immune to the temptation to blame that precarity seems to induce. However, the main figure that has arisen in their search for blame is the real estate speculator. Although not directly opposed, these two figures reflect the layers of precarity that are experienced through the changing nature of labour and its moral associations, as financial speculation, automation, and social alienation seem to surpass the attachments to physically demanding work and communal solidarities. By disentangling the bundles of anxiety that these accusations draw upon, this chapter reveals the valued conditions and moral contests over them that accompany the contemporary mining industry as well as pointing to how understanding these

anxieties might make sense of growing far-right populism locally. This shows how the moral accusations which arise around such figures reinforce the Anthropocenic conditions of precarity through distracting blame away from structural and institutional failures. Instead, these critiques become pathologized and precarity is blamed on an individual's moral failure which leads to political divisiveness and othering.

I was about two months into fieldwork in Moranbah when I finally started to feel settled in. I had found a base at the local radio station, had joined several social clubs and was making friends. But just a month later, in December, I became worried as a wave of lay-offs was sweeping through town, and many of my close informants were moving away. I was told the lay-offs were an attempt by the mining companies and mine servicing businesses to "balance the books" before the end of the year. There was a palpable sense of anxiety that seemed to permeate the town that month. The aisles of the grocery store and the line of mothers waiting to pick up their kids at school were full of whispered rumours about who would be next.

One of my informants I most enjoyed spending time with, a local artist, left town as her husband was laid off. My first friend in Moranbah, Russell, the engineer from Germany, was afraid his job would soon be terminated. The mine he worked for came up for sale, and he suspected his work visa would not be renewed by the new owners, telling me "as soon as they find a buyer, I'll be sacked and deported." This did not eventuate, as he managed to secure a permanent residency visa without company sponsorship, but he was very anxious for several months. I became particularly despondent when my housemate was laid off. She was a 22-year-old woman who worked in the administrative office of a nearby mine as a casual employee. She was grateful to be given a week's

notice to try and find a new job, as her contract required no such courtesy. However, she was unable to find work in that time and decided to move back in with her parents in the regional town of Emerald. As all these friends and informants began to leave, I thought: what is the point of trying to build relationships if people would all move away before I could get to know them in the in-depth way that my methodology required? Of course, this thought also explained precisely the benefit of my methodology of long-term engagement. I began to understand for myself the lamentations related to me by many Moranbah residents about the transience of the community and its affective consequences.

I was often told how hard it was to make friends in Moranbah, because relationships were often only temporary. The community relations manager at the local council explained that one of the biggest issues for local government was the high staff turnover. He explained: "We have a problem with stability. We have 20 to 35 per cent turnover annually in council. The big problem is that one partner tends to work in the mines, and so if that partner is laid off or transferred, the partner working at council will follow." Many mothers reflected that this transience was particularly hard on children who were less jaded about these conditions and thus didn't have the same emotional barriers. Children didn't understand why their friends were always moving away. A long-term primary school teacher was less confident that this was a particular problem though, telling me: "When a new kid come to town, it's not a big deal. It's now just part of our culture. I wonder if kids just don't form that same bond…but no, there are still lots of tears when kids leave."

There is a considerable tension between the established families of Moranbah and the more transient newcomers, although as I mention in the introduction this is more about the movement towards instability and transience for *everyone* that workforce casualization induces. There is now a third generation who is attached to Moranbah as their hometown, but there is also a growing population who filter into and out of Moranbah following job opportunities in a fluctuating industry. However, it should be noted that the ability to stay in Moranbah is unevenly distributed. Those who have been in Moranbah longer are more likely to have permanent positions. However, the mobility of the more transient and less secure population affects the way in which long-term residents relate to the community. Even if they themselves are committed and able to stay in Moranbah, many of the people they interact with are not. This sense of instability heightens the affects of precariousness that haunt many parts of social life. Further, the division in the community reflects contested values between different populations working and living in Moranbah as well as national discourses linked to the mining boom.

Of particular importance is a moralised debate over appropriate forms of labour and its value in the context of the changing conditions of employment. As described in the previous chapters, the rise of FIFO and DIDO alongside casualisation, has shifted energy from the community building of the pioneering discourse which guided early Moranbah. Further, the resultant decreased union power has seen the previous collectivism around labour organizing devolve into individual contractors. This has worked to emphasize extractive relations to the community of Moranbah and more

broadly changed the national perception of the coal miner. Such changes are tied up in the political-economic conditions of the mining boom and bust.

I will first describe how the conditions of the boom and bust represent an increased anxiety about the opportunities and vulnerabilities of Australia's role as a commodity exporter, particularly of coal, and how these anxieties become represented in the figure of the CUB. The previous working-class image of the coal miner, and his associated social community, has been replaced by the image of an acquisitive and entitled miner, who is mobile and disconnected from the communal and labour values of physical work that marked previous mine employment. The so-called, cashed-up-bogan (CUB) has emerged as a class-based figure that represents this shift in perception over the labour and value of mining. Accusations of being a CUB are often levelled at miners by outsiders, primarily urban populations or environmentally-minded Australians. Further, they filter into the news media and social commentary on Australia's mining industry. However, the designation of being a CUB is strongly rejected as insulting by emplaced locals, not necessarily for the class-based habitus distinctions (Bourdieu 2010 [1979]), but for the moral accusations of greediness and undeserved wealth that it implies. The derivative bogainaire, to describe mining magnates, has similarly emphasized a shifting association of the mining industry with financial speculation, rather than material industrial production.

Emplaced locals recognize the speculative boom and bust nature of the mining industry and have suffered in particular ways as a result of it. However, they don't blame CUBS. Instead, they blame outside speculators for exacerbating the conditions of instability and precarity they face. For the emplaced community, the main targets of

blame are real estate speculators, because of the particular way in which housing has been implicated in these labour transformations.

Later in this chapter, I will describe the condition of a local real estate speculator, Kate Maloney, and interrogate the *schadenfreude* that many community members express at her financial downfall. This is related to the normative politics around housing which her speculative endeavours disrupted. I then analyse the local reaction to Kate Maloney's story to show how the figure of the speculator *partially* served as a counter accusation to the figure of the CUB and its associations with greedy entitlement. Moranbah residents' reaction to Kate's speculative practices show how systems of blaming take on varied patterns which come about as communities react to threats to their valued conditions (Douglas 1992: 7). The accusations and counter-accusations of greed, reflect anxieties about the precarity of mining in the context of shifting political and economic conditions and resultant labour transformation. However these competing moral discourses do not present a legible critique or challenge to such structural transformation. Instead, because they are pathologized and attached to individuals over institutions, they reproduce the political impasse of 'jobs versus the environment,' refuse the acknowledgement of shared precarity in Anthropocenic conditions, and perhaps fuel a growing far-right populism.

The Cashed-up-Bogan and the Boganaire

The Australian sociologist Steven Threadgold describes the term 'bogan' as the "logos of precarious affect" (Threadgold 2014: np) for the way in which it gives language to a bundle of anxieties deriving from social and political problems. 'Bogan' although flexibly deployed mainly refers to the white working class in Australia. While it is class

based, it refers to a broader habitus, one which resonates strongly with the American 'redneck' or the British 'chav'.[17] The term 'bogan' implies a lack of education, a brash and loutish demeanour, and a lack of sophisticated taste, which is revealed in lowbrow habitus, such as excessive smoking and drinking, casual forms of dress, and the driving of specific cars (cf. Bourdieu 2010[1979]). It is thus a term of class-based differentiation, applied to the lower orders, although increasingly being claimed with pride as a marker of a uniquely authentic Australian identity.[18]

Although 'bogan' is a relatively recent term, with the first use of the term dated to the mid-1980s (Gwynn 2015: 7), the derivatives 'boganaire' to describe the extravagantly wealthy mining magnates and the more ubiquitous 'cashed-up-bogan' (CUB) to describe the newly wealthy but working-class population came largely out of the context of the recent mining boom (Pini and Previte 2013). The once poor working-class bogan coal miners were now receiving substantial salaries. Thus, the CUB still had the lack of social capital through their bogan status and habitus, but all of a sudden had the economic capital of an upper middle-class worker (cf. Bourdieu 2010 [1979]).

The demand for labour during the boom led to high salaries in the industry, the increase in temporary and contract labour to fill demand and the increase in fly-in-fly-out workforces. All these dynamics worked to change the national imaginary of the coal miner. Historically "[i]n both academic and popular fields, the miner has been collectively imaged as a taciturn, resilient, unassuming and simple man, devoted to his

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[17] Rebecca Scott (2010: 31-60) analyses similar class-based stereotypes applied to Appalachian coal miners who are described as 'white-trash' or 'hillbillies'. Although there is some overlap, the bogan is less directly associated with poverty than these figures.
[18] This may also be linked to increased xenophobia as well as a decline in the discourse that celebrates Australia as a multicultural nation.

work, family and community, dealing with the vicissitudes of nature in work that is tough, dangerous and difficult" (Pini and Previte 2013: 259; see also Smith and Tidwell 2016). In the context of the boom, the miner became a symbol of unsustainable greed and conspicuous consumption. He is now a man of vices: gambling, alcohol, smoking, and marital affairs rather than one of difficult work, family, community, and labour solidarity. Thus, the CUB's increased precarity that accompanied the mining bust is deemed an appropriate re-assertion of the standard class hierarchy.

By way of illustration, let me introduce you to Slimbo, who moved in with me after my initial housemate was laid off. Slimbo was technically a nickname but he always went by it and was proud enough of it to have it tattooed on his right bicep and to insist that I not give him a pseudonym in my writing. He worked as an operator at one of the original Moranbah open-cut mines on a six and six schedule. As mentioned in chapter two, this involved working three 12-hour day shifts and then three 12-hour night shifts, followed by six days off. After their three nightshifts—which marked the end of their working week—several of Slimbo's work crew would come to our place to celebrate. I'd often awake to the celebratory smell of bacon and eggs being cooked on the outdoor barbeque and be offered a breakfast beer when I wandered out of my room in my pyjamas.

I rarely saw Slimbo on his working days, as he had little time for anything but sleep. He also disappeared on his days off, heading off into the bush to go hunting feral boars on surrounding cattle stations. Feral boars are a particular nuisance in this region, and cattlemen welcome hunters on their land. To Slimbo, however, it was primarily an enjoyable sport. Instead of using guns they drove their large trucks, or *utes*, with their

dogs in the back through the station. The dogs barked when scenting a boar, then they were let loose to hunt it down. The dogs wore GPS trackers on their collars so that they could be easily followed. When the dogs were shown to be circling a boar, Slimbo and his friends would drive their ute to the area and then enter into the tussle with a knife. They would step in and slice the pigs throat. The practice ended with a ceremonial weighing of the pig's body to calculate the prestige of the kill. The way in which Slimbo related to this hobby was primarily about dominance as he emphasized the feeling of overcoming an animal that was constructed as particularly grotesque. One evening as I asked Slimbo more about the practice, he took me into his room and showed me the bloody knife that he used in this hunting. As he grasped it tightly he explained, "It's great, that feeling of wrestling this huge creature. But boy do they stink! Sometimes you just can't get the stink off ya for days." He subscribed to Bristle Up Magazine, which came with a DVD called Grunter Hunters which compiled videos of such hunting in other parts of Australia, glorifying the hunt and crafting a competitive community around the hobby. These videos were often playing in our living room and I witnessed that occasionally, the hunters also cut into the pigs' stomachs to reveal the food that the pig had been eating. This was done to reveal the nuisance they represented to farmers and native wildlife. I particularly remember one such act from these videos where the hunt occurred in a coastal area. When they cut open the boar's innards, dozens of baby turtles seeped out.

Other times on his days off, Slimbo would travel to surrounding rodeos, where he rode bulls competitively, again taming a massive beast for competitive recreation and prestige. Although he never seemed to win the prize money, he did win several battle

scars and broken ribs. The miniscule time spent on the bull—usually less than the required eight seconds—meant that weekends at the rodeo were primarily about socializing, drinking and camping out on the rodeo grounds with friends.

Slimbo's hobbies quite clearly reflect a domineering relationship to nature while also drawing on a certain sociality and domestication that I discussed in chapter one. Grunter hunting took place in groups and created a community of like-minded hobbyists through the physical domination of feral beasts which presented a nuisance to ranchers. Similarly, rodeos were an important social activity which celebrated a settler rurality.

Slimbo's general habitus, his smoking, drinking, tattoos, hobbies, and crucially, his employment as a coal mine operator meant that he would not deny that he was a 'bogan'. However one day while on a break from fieldwork in Sydney, I described Slimbo to a corporate lawyer who instantly designated Slimbo a CUB. I soon learned that this accusation was very common amongst Australia's urban residents, repeated particularly when discussing the frustrating political impasse around climate change. When I returned to Moranbah, I asked Slimbo whether he would call himself a CUB. He seemed slightly insulted but in his characteristic lightness joked, "If I was a CUB, would I be living with you?" This was more than a comment on his remuneration. We were both aware that his six-figure salary (approximately AU$ 145,000 annually) meant he did not actually need my contribution to the rent. The comment, although referencing the 'cashed-up' element of the moniker, was principally about his sociality, something that he privileged above all else. The moniker implied that he did not have a connection to mining other than through his wage. However, mining and particularly the way in which

it contributed to Moranbah as a community was an important part of Slimbo's self-identification.

Slimbo was born in the local hospital in the mid-1980s to parents who had come to Moranbah in the early 1970s. He is very proud of his hometown; in fact, his left bicep bore a tattoo of '4744,' Moranbah's postcode. He is a proud member of the CFMEU mining union and displays the union's stickers on his hard hat, and even would

Figure 3.1 Slimbo showing off his tattoo of 4744, Moranbah's postcode (photograph by author)

call his dog a 'scab' when it begged from the table. He would have been eligible for company provided housing. However as a single man he would have had to live in a single person's quarters in a camp. Standalone houses were reserved for married employees. Instead, he chose to rent in town and thus ended up living with me in a house just a few blocks away from his parents. Slimbo's attachment to the mining community

reveals a tension between the habitus of the CUB and the pathologizing effects of these aesthetics.

The lack of social capital of the 'bogan' revealed through the more aesthetic elements of his habitus—his appearance and consumption choices—have been attached to a set of moral values. As Bev Skeggs (2005) shows morality is often invoked to police class boundaries. The CUB moniker implies an un-deservingness that is articulated in accusations of greed. A.F. Robertson's study of greed reveals that despite attempts by merchant classes to turn greed into more palatable concepts like self-interest, greed maintains its collective moral strength through its continued embodied and guttural affective power (2001). This would seem to make greed accusations an effective "weapon of the weak" (Scott 1985). However, while greed accusations can be wielded by the lower classes against the elite, they do little to offer structural critiques as the moral accusation is attached to human bodies rather than institutions. Most critically such accusations shift attention to the moral subject who is defined through his or her individual personal responsibility (Skeggs 2005). Greed's biomoral (Appadurai 1981; Bear 2007) tendencies pathologize critique and thus such claims are stronger when applied to already pathologized populations. As Robertson elaborates, "if your wants, however modest, exceed your entitlements (perhaps because you are an immigrant, or a girl) you are a political threat. But to be accused of greed in these circumstances is political trickery: your (inferior) body is being evoked to justify my (superior) entitlements" (2001: loc 721). Thus these accusations levelled at the well-paid working class, reflect the anxieties of the middle-class, particularly those that derive from debates over Australia's place in the global economy. As I described in the thesis introduction,

the recent commodities boom and bust have led to a questioning of the possibilities and vulnerabilities that derive from being the "world's quarry" (Knox 2013: 78).

These bundled anxieties can partially be disentangled through looking at the main moral failures that the CUB represents: the lack of communal and labour attachment, environmental damage, and the changing labour conditions of the mining industry. First, as Slimbo's refusal to accept the CUB moniker helps to show, the CUB is primarily associated with mobility and selfishness. The archetypical CUB is a FIFO worker, his lack of attachment to any community deemed morally dubious. This is also linked to the loss of labour union collectivism. As described in the introduction, the history of Australian labour has been intertwined with that of Australian democracy, creating a rather strong positive view of labour movements. Thus, the accusations of immorality directed at contemporary miners, must separate these associations, or re-write them into a new narrative. Labour unionism thus has been increasingly linked to undeserved entitlement. The success of this narrative was reflected in the comments of my non-unionized friends who complained that unionized miners would strike over a lack of sugar, described in chapter one. Organized labour's role in neoliberal Australia is also increasingly questioned. The once progressive political positions with which it has historically been associated, particularly as embodied in the ALP, have become more conservative as the political economic conditions of Australia have changed. The appeal to protecting industrial, mining, and construction industries appears rather conservative in Australia's urban-based immaterial economy. This has challenged the ALP to balance the progressive environmental demands of an urban base with its—now more conservative— labour base, which is increasingly concerned about protecting coal jobs. The Greens party

has become a growing leader of progressive politics, linking these political economic changes to environmental concerns and pushing the ALP in this direction. As I will soon show, this tension is frustrating many miners who are increasingly looking towards populist and nationalist third parties and leaving the ALP.

Secondly,—and further reinforcing these political dynamics—the CUB's immorality is linked to the environmental damage that he contributes to. Coal has been central to national debates about Australia's contribution to anthropogenic climate change, and thus is implicated in complex moral arguments about Australia's global responsibilities (cf. Callison 2014; Gardiner 2011; Hughes 2017; Hulme 2009). This will be discussed further in chapter four. For now, this moral complication implicates the morality of the coal miner, which has also fed into the CUB's reputation. As Barbara Pini and Josephine Previte argue, the CUB's lack of environmental capital derives from the activity of mining itself but also from the CUB's consumption practices, particularly the types of petrol-guzzling leisure items he is said to choose: big cars, boats and jet skis (2013). Of course, the environmentally damaging acts of middle-class leisure are less likely to receive such questioning despite similar carbon emissions. As many coal miners often rhetorically asked, "What do those greenies think is powering their cappuccino machines?" Thus, habitus distinctions again are used to differentiate groups and their associated political positions in regards to the heavily moralized and politicized landscape of coal's contribution to climate change. However, it was both the CUB's consumption choices as well as the products of his labour and the damaging environmental effects of mining that made him doubly complicit. Here we see the interaction between social, symbolic, environmental and economic capital that are at the

heart of moral arguments about the coal industry, and the way in which they have shifted through the recent history of Australia's commodity boom and its contemporary aftermath.

In a similar vein to the conditions Smith and Tidwell point out in America, this discourse that paints CUBs as immoral polluters is prominent in "self-professed progressive politics" which create stereotypes of a "kind of moral character necessary to commit massive ecological damage" (2016: 332). They quote Naomi Klein referring to contemporary miners as an example:

> beneath the bravado of the bar scene are sky-high divorce rates due to prolonged separations and intense work stress, soaring levels of addiction, and a great many people wishing to be anywhere but where they are. This kind of disassociation is part of what makes it possible for decent people to inflict the scale of damage to the land that extreme energy demands (Klein 2014, 343-344 quoted in Smith and Tidwell 2016, 333).

This discourse similarly exists in Australia, where so-called progressive politics celebrates coal miner's precarity as a necessary externality of climate change mitigation.[19] The appeal to the contemporary miner's immorality excuses the writing-off of their legitimate concerns for their livelihoods and communities and reproduces the binary of 'jobs versus the environment' discourse.

Although I did not conduct systematic research in urban Australia, I encountered a discourse that links coal mining to both addiction and murder often enough to recognize that it was common. 'Coal Kills' has become an almost trite phrase. Not limited to political protest signs, I spotted tote bags for sale at one of my favorite Melbourne based

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[19] The distinction between coking coal and thermal coal is often overlooked in such national discourses.

clothing brand's Gorman that had a logo reading "Coal Kills" framed by colorful coral.

Once when explaining my research at a party in Melbourne and describing the struggles

faced by many of the miners I knew, a slightly intoxicated man I was speaking to

responded, "the people of Queensland are the murderers of our children and you are

worried about their fucking murderous jobs!"

My interlocuters in Moranbah also told me about their own experiences with these

accusations. A woman who had lived in Moranbah most of her life and had raised her

daughter there explained how her daughter struggles with this discourse which she

encounters at university. She told me:

> My daughter is in uni [university] in Brisbane and spends time with the yuppies
> there. Sometimes she gets upset when they are talking about how evil coal is. My
> husband tells her to tell them that unless they want to give up their phones they
> need to shut up, and that coking coal is different.

Similarly, a local CFMEU official once explained to me that during a trip to Sydney he

was chatting with a man at a bar who asked what he did for work. The man—who he

described as "some dickhead in Sydney"—said, "'coal is as bad as heroine'". He

recounted to me how he angrily responded: "Go and tell the Indians and the Chinese that

they can't have electricity! I'm no drug dealer!"

The kind of passionate moral outrage that has become directed at coal miners is

intensely frustrating for miners and represents a radical reversal of previously celebrated

mining heritage that linked mining to the building of Australian national wealth. The

CUB encapsulates a new lustful and murderous conception of the coal miner. As I will

soon discuss in more detail, this perception has exacerbated the political divisiveness in

Australia and reinforced the rise of a far-right populism in coal mining communities. As

outsiders portray the environmental damage coal miners contribute to as indictments of their murderous greed, and class-based distinctions celebrate CUB's precarity as a rightful correction, they incite an anger that only further fuels miners' desire to defend the industry in which they work. It also is encouraging support for populist politicians who refuse mainstream political discourse which questions the future of Australian coal. Despite the importance of organized labour in its founding, the ALP is implicated in this questioning of coal through its position representing the moderate political left.

The third moral dilemma that the CUB represents is the issue of the changing nature of value-creation, which involves both changes to physical work and its dangers, and the prominence of financial speculation as opposed to physical labour that surrounds the value-production of the mining industry. First, is the nature of physical work. The increased mechanization of the mining industry, particularly through open-cut mining has changed the physical demands of mining labour. The image of the fit and dust-covered underground miner is replaced by the image of a corpulent contemporary open-cut miner, whose work involves driving a large piece of machinery while sitting in its air-conditioned cab.[20] The aesthetics of mining labour and their historic associations with working class exhausting and dangerous physical work thus further threaten the politics and affective associations through which miners have historically derived both working class solidarities and moral self-hood, particularly in the post-boom context where the speculative nature of contemporary mining is critiqued.

A second change to the expectations of labour is a greater association of the industry with financial speculation. As I described in the introduction, mining in

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[20] Slimbo here is an exception to this stereotypical association with the overweight body. However, his nickname implies that his leanness is a noteworthy outlier.

Australia has always been accompanied by booms and busts. However, in the context of the mining boom, this was exacerbated. The figure of the boganaire emerged discursively to capture these anxieties about the nation's dependence on a speculative and thus unstable industry. This term, boganaire, describes a small group of wealthy mining investors who have become a prominent face of the mining industry in the media. Boganaires fit the aesthetic class-based distinctions of bogans in terms of hobbies and consumption choices, but the primary material marker of the boganaire is the overweight body. Their corpulence serves as a symbolic exteriority of their internal greed (Robertson 2001: loc 152). Although boganaires operate at a smaller scale than the multinational mining companies which reflect the similar extractive and speculative wealth generation, pathologized accusations of greed can be directed at these individuals in a way that they are not deployed against companies. The presence of their bodies makes their greed imaginable.

Popular examples of boganiares include Clive Palmer who made his fortune in iron ore, coal, and nickel refining,[21] or Gina Rinehart who made her fortune through her family's large land holdings in Western Australia and the extraction of their massive reserves of iron ore. Another boganiare who I encountered personally in my fieldwork when he was speaking at a public hearing in favour of the Drayton South Mine development in the Upper Hunter Valley—the subject of chapter five—was a man named Nathan Tinkler.

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[21] He also ventured into parliamentary politics under the Palmer United Party and recently produced political billboards mimicking Donald Trump with the catch-phrase, "Make Australia Great".

Nathan Tinkler began working as an apprentice in the Hunter Valley coal mines, but by the age of 26 had started his own mine machinery maintenance company. He then went on to raise funds and borrow money to buy the Middlemount Coal mine in Central Queensland (140 kilometres from Moranbah) for AU$ 11.5 million. He sold his 70 per cent stake the next year for AU$57 million cash and AU$184 million worth of stock to MacArthur coal. MacArthur's stock price then doubled the next year, making Nathan a very wealthy young man, with a AU$ 441 million net worth in 2008 at the age of 32. He continued investing in mining. At 35, from other lucky mining investments that coincided with the global commodities boom, he became Australia's youngest ever billionaire. He spent lavishly during these years, following a number of pursuits, including buying local sports teams in Newcastle, and attempting to build the country's largest horse-racing operation. In 2012, with the end of the mining boom and the drastic drop in coal prices, Nathan Tinkler's net worth dropped from $AU 1.18 billion to $AU 630 million within the year. He is now bankrupt, and his financial woes not only affected him personally but left much destruction in its wake. He was an infamously bad debtor even before going bankrupt. He left many suppliers unpaid, continually leveraging debts into new ventures, and burning many bridges along the way (Long 2013). His rags to riches story, from Australia's youngest billionaire to bankrupt disgrace, signals a larger critique of the mining industry itself (Manning 2013). Having made his fortune in the mining industry and choosing to spend his wealth in the sport and horse-racing, his fall from riches due to recklessness and conspicuous consumption make Nathan Tinkler an archetypical bogainaire. His biography is titled, Boganaire and the cover image is cropped to centre on his protruding gut (see figure 3.2 overleaf).

Of critical importance is why the story of Nathan Tinkler has captured such national attention. He serves as a cautionary tale reflecting anxieties about Australia's reliance on commodities. As I described in the introduction, the recent commodities boom and bust has brought to the fore the precariousness of Australia's reliance on international markets for its coal and iron ore. Further these anxieties reflect the failed industrial dreams that have accompanied neoliberal globalization (Knox 2013). In the words of Stephen Long, speaking on the national news program Four Corners: "[i]n many ways Nathan Tinkler's story embodies some of the key themes of Australia's recent history. A nation of gamblers which rode the mining boom to riches, and plunged into debt, speculating on assets" (Long 2013).
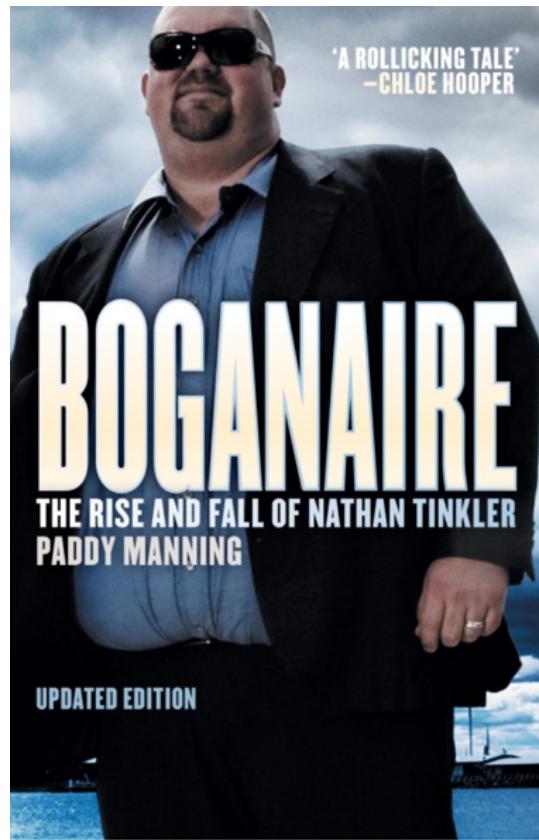
Figure 3.2 Front cover of Nathan Tinkler's biography (Manning 2013) reproduced with

permission of Black, Inc.

National anxieties about Australia's reliance on commodity production and the shifting political economic conditions of the mining boom and bust have given rise to the discursive figures of the CUB and boganiare as "logos of precarious affect" (Threadgold 2014, np). However, as I have shown in the previous two chapters, these broader political economic transformations have had specific local consequences in Moranbah. The boom and bust partially enabled the changing conditions of employment and resultant demographics, but it also had affective consequences as people question the stability of progressive futures. They have suffered through the instability of the boom and bust, and thus dislike the association of the industry with such cyclical conditions, which acts of speculation have exacerbated (see also Bowman 2018). Thus speculation becomes viewed as a destructive force to the privileged form of stable employment and normative emplaced families. Further, how one relates to speculation has become a point of differentiation that marks local Moranbah residents from outsiders whose presence in Moranbah is deemed opportunistic. This was seen most prominently through the local reaction to the story of an individual real estate speculator Kate Maloney, to whose story this chapter now turns.

The Real Estate Speculator

Most people I knew were excited that Moranbah was going to be on TV that night, and so I sat down on the couch in my living room to share in the small moment of fame. The TV blared out a dramatic news jingle, marking the start of the weekly Australian national news documentary program, *60 Minutes.* A male reporter in voiceover boldly

proclaimed: "For a snapshot of all that's wrong in the Australian housing market just visit Moranbah in Central Western Queensland." This was followed by background video, shot through the cracked windscreen of an abandoned car, that showed empty streets and foreclosure notices on front doors. The choice of background video too simplistically portrayed Moranbah as a decrepit ghost town which was heightened by the choice of background music. The classic Animal's song with the lyrics, "We've got to get out of this place, if it's the last thing we ever do" played over the scene-setting footage. Eventually the camera panned up from a dead cockroach on the floor of an empty house to the feet of a young woman, and the audience was introduced to Kate Maloney, casually dressed, in her mid-20 with long blonde hair.

We learned that Kate is AU$ 5.8 million in debt, with no chance of paying it back. In 2010 she began buying investment properties in Moranbah, getting in just at the beginning of the mining boom. However, with the end of the boom, prices for Kate's ten properties in Moranbah dropped drastically, and the rents she was receiving to pay her mortgages have dried up as hundreds of houses sit empty.

"Were you greedy?" asked the reporter. "Yes, I did the wrong thing. We bought too many properties. We bought them too quickly, and with very high leverage. We absolutely did the wrong thing," she admitted. Although she purchased the houses with her husband, she is the focus of the reporting and her husband is largely left out of the story except in the presence of a plural 'we' in her answers to the reporter's questions.

Kate's interest in investing began at an early age, growing up on her parent's dairy farm in New Zealand and observing how they managed the family business. By 14, she was reading investment books and had started buying cattle shares, saving up

AU$25,000 by the age of 18. She moved with her family to country Victoria, Australia, in 2005. She studied a Bachelor of Commerce at university and also received a diploma in financial planning. Her interest in investing eventually led her to the world of property investment education programs and seminars. She quickly got caught up in this circuit, attending seminars and paying thousands of dollars to have meetings with various mentors who would help guide her through the investment process. Through these mentors she learned about the potential riches that could be made investing in mining towns like Moranbah.

She and her husband moved to Moranbah in 2010 to accelerate their investment goals. At the time, the mines were paying high salaries and hiring even inexperienced workers. Kate and her husband both got jobs at the mines, where their salaries meant they were able to borrow more from the banks. 21 years old at the time, she disliked her job and became more determined to reach her goal of fully retiring at the age of 25, living off her investments.

They were very successful for a few years, eventually purchasing ten homes in Moranbah. The mining boom was at its peak throughout this time, bringing up the demand on the housing stock as more and more people moved to the area to work in the mines and on related construction. Moranbah is relatively isolated, so there was no significant housing nearby to help absorb some of the influx population.

Rental prices skyrocketed. Kate describes how in May 2011, a three-bedroom house was renting for AU$1,000 a week, and by December 2011, it would have rented for between AU$2,000 and AU$2,500 a week (Maloney 2016: 14). With such high rents coming in as income, the Maloneys were able to borrow even more, as this income was

used to calculate their serviceability on future mortgage loans. With such high rents, investors were able to pour more money into real estate in Moranbah, further pulling up the prices and fuelling the frenzy (cf. Tsing 2005: 55-78). Their success seemed to reach its climax when Kate and her husband were awarded the title of Australian Property Investors of the Year in 2012 by *Your Investment Property Magazine*, based on criteria of entrepreneurship, overall strategies and property selection criteria, contributions to other people, risk management, innovation, financial skills, and success against the odds (Devine 2013: 53).

The crash came surprisingly quickly. Kate and her husband left for a six-month trip around the world to celebrate their successes just as things were beginning to slow down. By the time they returned, the decline was in full force, and houses that had been let for thousands of dollars a week in December 2012 were now attracting few if any tenants. The median rental price in 2012 was AU$1390 a month, by 2013 it was only AU$550 (by 2016 it had fallen to AU$275 a month). Housing prices fell even faster. The median house price in 2012 was AU$700,000, by 2013 it had dropped to AU$375,000. And again, the drop has continued, the median house price at the time of my fieldwork in 2016 was only AU$140,000 ('Moranbah Investment Property Data for All Houses' 2017). That means that median house prices have dropped 80 per cent in four years.

Kate is not alone in her financial troubles. Foreclosed and empty homes are a common sight in Moranbah, something that one easily notices walking down the street as catalogues and flyers pile up spilling out of unchecked mailboxes, and grass in front gardens grows tall and unkempt. Although many investors were affected, Kate is one of the few willing to speak publicly about it. She has put her story in the spotlight despite

the embarrassment and the shame because she wants to bring attention to the problem of the investment seminar culture and the problems in the banking industry that allowed her to borrow so much money in the first place. Kate repeats in all her public appearances that she takes responsibility for her situation, but she refuses to fully individualize the problem. She calls it a "collectively created problem" (Maloney 2016: 237) to emphasize the role played by the banks.

Kate's attempt to distribute the blame for her failed speculation between herself and her lenders and attempt to bring ethical order in the aftermath of her failed speculation (Bear 2015:422) failed to gain traction in the local community. In the aftermath of this news program Kate became a local pariah. Town scorn, which spread over Facebook and local gossip circles, universally condemned Kate. She faced criticism, and there was *schadenfreude*, a collective glee at her financial downfall, coupled with anger that she blamed the financial institutions that enabled her speculation rather than taking responsibility for her own failure. Kate was deemed greedy and her downfall considered an appropriate comeuppance.

There is a critical difference between the local reception of Kate's story and the broader narrative that the producers of the television show were attempting to relate. The show itself is framed in the context of growing national housing prices and resultant anxiety over rising household debt levels. It attempts to point to the responsibility of the banks in proliferating the Australian real estate bubble through interest-only loans. The story much more engages with what David Graeber terms the "profound moral confusion" around debt…where "most everywhere, one finds that the majority of human beings hold simultaneously that (1) paying back money one has borrowed is a simple

matter of morality, and (2) anyone in the habit of lending money is evil" (2011: 9).

Despite attempts to connect Kate's story to the global financial crisis and particularly the

subprime mortgage crisis in the USA and Europe, however, ambivalence about debtors'

obligations to repay their loans after the revelation of predatory lending practices (Sabaté

2016; Stout 2016a, 2016b) was little evident in Moranbah. Instead, Kate's greed and her

personal moral ineptitude, was the primary way in which the community made sense of

her downfall. The moral confusion here was precisely about what is really at question in

Kate's indebtedness (Gregory 2012; Peebles 2010; Stout 2016a), that is, what are the

social and political conditions which the moral injunctions invariably reflect?

Within Moranbah a moral unease has arisen around the practice of financial

speculation and the related alteration of labour and established forms of value within the

mining community. Speculation and the boom and bust of commodity cycles has

increased the precarity of labour and social communities built around the coal mining

industry. Accusations of greed reflect such changing political economic conditions and

the resultant negative affects which surround shifting moral attachments. This has had a

particular manifestation in debates about real estate locally. Housing in Moranbah has not

primarily been defined through the mortgage, but through one's location in a

hierarchically structured society and through the labour struggles in which housing was a

sought-after entitlement. Housing is also a central point in the current threat to

community through the increase in long-distance commuting such as fly-in-fly-out

(FIFO). Although many of these changes are a result of mining company policy and

banking incentive structures, real estate speculators like Kate receive the bulk of the

blame from the local community. In order to understand the local context of the

accusation and to illustrate how Kate's investments were particularly incompatible with moral expectations and the conditions for which she is blamed it is necessary to understand more about the history of housing in Moranbah.

Housing in Moranbah: From labour solidarity to the long-distance commute

As mentioned earlier, Moranbah was built specifically to house the workers at the nearby open-cut coal mines in the early 1970s. However, this was partially a result of previous labour struggles in the region, particularly a 1963 strike in the coal mining town of Moura. The housing conditions surrounding the Moura mines were considered drastically inadequate and consisted mostly of tents and a few caravans, but all without a reliable source of clean water. This eventually led to a six-week strike. Through intense lobbying by the unions, the state government ended up providing housing commission houses to the mine on 40-year leases (Peetz and Murray 2010: 67). This victory had a broader impact however, as it put pressure on the government to ensure that mining companies provided housing to employees and their families but also contributed to the broader development of towns in the localities of their mines. Thus, as companies made plans to build more mines, they were now expected to also build towns, eventually leading to the building of Moranbah several years later.

Two-thirds of the houses in Moranbah in the first decade were built by the Utah Development Company, which operated the local mines (Fitzgerald 1985: 331). Even though the town was not technically a 'company town' as it was open and run by a local government council, the impact of the Utah Development Company was profound. Of particular importance to the class dynamics at the time, the town was marked by an

occupational hierarchy which was transferred onto the built environment as those with

different occupations were housed in differently styled houses and neighbourhoods. This

was seen as a particularly American invention by residents at the time and deemed

counter to a particular Australian sense of equality, Utah being an American company

(Williams 1981). Higher-up staff members were provided with four-bedroom high-set

houses—houses raised on stilts with a storage area underneath—whereas the workers

were given three-bedroom low-set houses—houses set on the ground (see figure 3.3

overleaf). Similarly, those in non-mining occupations were further differentiated as the

government-provided or private housing was of lower quality than that built by Utah. The

upper-level staff and managers were highest-placed of all, as they lived in larger houses

built on a slightly elevated section of the town, colloquially referred to as 'Snob hill' (see

figure 3.4 overleaf). This strict distinction no longer exists formally. However,

neighbourhoods are still associated with different employers, as the same company tends

to own houses within the same few blocks.

These photos, Figure 3.3 Low-set house and high-set house in Moranbah (source: realestate.com.au) have been removed as the copyright is owned by another organisation.

Figure 3.4 Map of Moranbah showing area known as Snob Hill (source:

googlemaps.com annotation by author)

As Katherine Gibson argued in her studies of this area in the early 1990s: "At all times involvement in class processes is overdetermined by involvement in other nonclass processes, such as processes of engendering, of family formation, of social organization, of cultural or geographical identification, and so on" (Gibson 1991: 288). While housing was a material marker of class division, it also became a focal point for various instances of class solidarity and labour organizing.

A particularly defining moment in Moranbah's housing history was the Housing Tax Strike in 1980. This strike came about when a Federal tax was proposed on the subsidized housing that any business or organization provided to their employees, including the mining companies (Murray 1996). The tax would have ended up costing miners the equivalent of AU$1000 a year (Peetz and Murray 2010). Employment

provided housing affected not only miners, but also local government employees, police, teachers, and even farmers who housed their staff. Thus, the shared interests in avoiding taxation was common across the board. This had the effect of uniting the community around the provision of housing.

As evidenced by the broad support for those who opposed this tax, housing ownership is far less common in Moranbah than in the rest of the state. The most recent data on this is from the 2011 census. Owner-occupiers represent only 30 per cent of the housing, compared to 65 per cent in Southeast Queensland. Within this group of renters, about 70 per cent of housing is provided through one's employment, whereas in Southeast Queensland as a whole the figure is under five per cent (Australian Bureau of Statistics 2011).

This complex housing geography was put under considerable stress during the recent commodities boom. When housing prices and rental prices soared, any residents who had not been provided with company housing or were not making particularly high salaries in service-providing to the mines, simply could not afford to live there and some were forced to move. So, finding employees for the local shops, hairdressers, and restaurants, was extremely difficult. At the same time, even the more established residents who might have filled these positions were pulled into mining jobs because of the huge demand and high salaries. Even though economic figures showed the town was booming, due to the increased cost of operating, those local businesses that were not directly affected by the increased demand from the mining industry struggled to survive.

Although the frenzied activity of the boom has ended and reversed, with housing prices since dropping and enabling some people to return, it has had a long-term legacy,

with the trend to favouring fly-in-fly-out (FIFO) workforces during this time, as discussed in chapters one and two. FIFO was partially justified as a solution to the social problems caused by the increase in population during the mining boom, especially the housing shortage. This made FIFO an easier sell to the community and state regulators (Wright and Bice 2017). Of course, now that the boom is over, and the population has left, and house values and rents have plummeted, the employment conditions that encourage FIFO remain. This has meant that the search for blame for the current conditions of precarity, particularly the dislocation of labour, has been blamed on real estate speculation, and figures like Kate Maloney.

This is also linked to the particular relationship to the environment discussed earlier in chapter one. The house is a crucial locus for the expression of labour solidarity and related communal security. Further, the generalized domestication that Hage (2017) describes as foundational to the settler-colonial relationship to nature is reflected in the privileging of housing as a representation of pioneering success. Thus empty and foreclosed homes, particularly their overgrown lawns, serve as visible reminders of social failure and represent the threat of an untamed nature. I will now describe in more detail the reaction to Kate's story to show how personalized moral accusations distracted attention from a structural critique of the increased precarity that most threatens Moranbah.

Moral Accusations of Greed

Moranbah is the kind of town where grocery shopping takes all day. It has a modern supermarket, a branch of one of Australia's major chains, with your standard organization

of fruits and vegetables in the entrance, milk at the back, and numbered aisles hosting the

sundry items in between. However, the delay comes when every time you turn your cart

around the corner of a new aisle, you will undoubtedly run into someone you know and

are thus obliged to stop and chat. It's a phenomenon often remarked upon by long term

residents, a manifestation of the strength of neighbourly relations in the community

which continue despite the increasing transience. However, it simultaneously represents

the prominence of the related local gossip. The supermarket is in a small mall, with a

central fluorescent lit hallway covered by high ceilings that trap the heavily conditioned

air. There is also a small café in this hall, located just to the right of the entrance to the

supermarket. This café is a social hub.

When Kate Maloney suggested we meet here for an interview, I was worried.

Sitting in this spot would surely expose our meeting to gossip, and although I certainly

wanted to talk with her, I didn't want to be seen with her. Even though my research could

serve as an excuse, much of my access required that I was perceived as 'pro-community,'

something that Kate had become to represent the anti-thesis of. Thinking back on it,

perhaps Kate had chosen this location deliberately, as an act of defiance, because as she

admitted to me it was the first time she had left the house in ten days.

Kate had recently become the victim of town scorn after her appearance on *60 Minutes*.

While rumours and gossip circulate in person, the central location for communal

shaming is Facebook, particularly on the Moranbah Community Notice Board, which has

over 16,000 members, despite only 8,333 people residing in Moranbah at the 2016 census

(Australian Bureau of Statistics 2016). Soon after Kate's story aired, discussion and

memes began to appear on the Facebook page. There were a few clear themes that

emerged from the criticism that reflect local conditions. First is the issue of unfair rental

prices, and the impact of these on the introduction of long-distance commuting practices

like FIFO. One user posted:

> You borrowed money from the bank so you could charge people exorbitant,
> unreasonable, unfair rental prices. Now you say the bank is being unfair and
> unreasonable making you pay back your exorbitant loan repayments!

Another, in reply to the above, wrote:
> So true and they also blame the mines and say they tricked them into it lmao [laugh
> my ass off]. The old saying never bite the hand that feeds you is so true but they went
> even further and chewed the mines arm off at the shoulder charging $2000+ pw for
> rent on non maintained shitbox homes lmfao [laugh my fucking ass off] and wonder
> why they went to using accommodation villages.

These posts defend the bank's right to demand repayment, and further even defend the

mining companies' decisions to use accommodation villages rather than housing

employees locally. Rather than recognizing the structural conditions and hiring practices

of the mines, the comments blame Kate's greed, the high rents she was charging as the

moral failure which disqualifies her from passing the blame to the banks and obscures the

role of the mining companies. The second comment goes as far as to paint the mining

companies as victims of Kate's greed having to pay high rents to house their mine

employees. Thus, the comment implies that the mining companies' decision to use

"accommodation villages" rather than putting workers in local housing is a sensible

reaction to Kate's and other speculators' greed.

Although it is not unheard of for local residents to call mining companies greedy,

particularly in the wake of lay-offs or workforce casualisation, this can backfire because

it implicates the morality of mining company employees, that is, themselves. As the

above reply also warns, "never bite the hand that feeds you". On several occasions when people were involved in discussions with their friends about the behaviour of speculators during the boom, someone offered the opinion that the mining companies were equally to blame. However, someone else would always stop the conversation from venturing too far into blaming the mines, with something along the lines of, "who do you think signs our pay cheques?" or "they might be greedy, but we're the ones who work for them". Accusations against the mining companies reflect a moral dilemma for coal miners, who often defend themselves against accusations of avarice from popular discourse, such as those linked to the CUB.

A particular point of frustration was Kate's desire to retire at the age of 25 and to live off her investments. This spoke directly to the changing conditions of labour-value which frustrate Moranbah locals. For an emplaced community which privileges physical labour in the mining industry, but which faces accusations of laziness and entitlement that the CUB represents, this is a particular insult. Not only does she desire to retire at an exceptionally young age, but further she intends to do this through upsetting the established economy around housing, in which housing is not an investment but a hard-fought for entitlement deriving from one's employment. Thus in this view of speculative wealth, Kate's gains come from appropriating the value created through others' work. Although Moranbah residents, particularly union members, would be familiar with the process of capital ownership and appropriation of worker's surplus value, when these dynamics were mimicked in the investments of a young individual, such capital ownership was deemed greedy. One person wrote:

> I'm sorry but I have no sympathy for anyone who tries to make a quick buck off the back of others, and to try and blame someone else for their failures[.] just goes to

show they were doing it for the wrong reasons. Greed will get you in the end every

time. Booms never last.

Another added in reply, "Typical greed 'I want high investment to get something for

nothing'…Nothing's for nothing" (ellipsis in original). In reply again, another

commented that Kate and other investors were "screwing what they can out of normal

hard working families". The distinction between investing and its association with greed

was contrasted repeatedly to legitimate wealth created through 'hard work'. This

conception of speculation as counter to physical work at least partially countered the

accusations that coal miners face as CUBs. The physically dangerous nature of mining

has been a point of similar contestation

Stepping away from the reaction to Kate's story momentarily, during my

fieldwork, contested understandings of the danger of work were most strongly revealed in

the discourses that arose over the re-emergence of black lung, or coal workers'

pneumoconiosis. In September 2015 the first miner after more than 30 years without a

case was diagnosed with black lung in Queensland (Moore 2016). As of May 2017, 21

cases have been confirmed. These have primarily been people with a long career working

in underground mines in Queensland (Mellor and Riga 2017). It seems that this disease

likely never went away; instead no one had seriously been looking for it. Insufficient

medical training and screening led to a diagnostic failure that was only recognized after

these miners' medical reports were sent to experts on the disease in the US.   While these

findings primarily concerned underground mines, several of the open-cut miners that I

knew drew on these findings to emphasize their own exposure to coal dust. It was

generally thought that open-cut miners were significantly less exposed to coal dust

because they were in the closed cabs of large trucks and machinery, as opposed to the

underground miners who worked more closely to the coal face itself, breathing in the fine particles that caused black lung. However, several open-cut operators emphasized that they too were exposed. Slimbo emphasized to me that although he spent his working days in a truck, "I still get covered in dust. You see, the window doesn't close all the way. So there I am with all this dust and I have to breathe it in. They don't give me a mask because they say I'm safe in there." Hound Dog, from chapter one, also brought this up repeatedly, and described how he was insisting his chest x-rays be sent to American experts for analysis.

There is much that can be said about this situation regarding the failure of the state's regulators, but of interest to this chapter, was the way in which the open-cut miners attempted to claim a relation to this danger, revealing the social framings of risk (cf Smith-Rolston 2010, 2013). Slimbo and Hound Dog's insistence that open-cut miners were similarly at risk derived from legitimate fears, but it also countered the assumption that contemporary open-cut miners were engaging in safe and easy work—at least by comparison to historic underground miners. The disappearance of black lung—30 years passing without a diagnosis—seemed to imply that the mechanization of even underground mining had taken much of the physical danger and health risks out of the underground mining process. It's re-emergence, and the evidence that it had in fact never gone away, showed that this perception of safety was a mere illusion.

This dangerous nature of coal mining, even in open-cut mines, is similarly a point of distinction emphasized by established miners. They argue that unlike casual miners, they have sufficient respect for the dangers and an ability to read the conditions in the mine to identify risks and hazards (cf. Smith-Rolston 2013b; 589). The dangerous nature

of mining, historic or contemporary, has played a part in the establishment of labour solidarity. Further, discourses which emphasize this danger serve to counter the image of laziness and entitlement that are encapsulated in the figure of the CUB. The risks that coal miners take as part of their job is thus partially understood to justify their high wages and to build an association that maintained the value of physical work. This safety risk however, was deemed quite distinct from the form of risk that was involved in financial speculation.

Returning to the reception to Kate's story, another comment about Kate on Facebook sarcastically explains: "Now there's the greed that all of us 'greedy' locals have been copping flak over for so long…And she was a greedy local, oh no that's right I believe she's from Victoria!" (a different Australian state, which is generally associated with a more elitist populace). This is an articulation that weighs the greedy miner, commonly represented in the figure of the CUB, against Kate's avarice. Her lack of belonging to Moranbah separates her moral failure from that of the "locals". The comment argues that greed is not internal to the mining community but is imported from outsiders whose very rapaciousness draws them to Moranbah.

Because of the strength with which greed is directed at outsiders, only once did a local admit to me that they regretted not selling their family home at the peak of the boom. I was out at a restaurant for an early Christmas party with a group of friends who all volunteered for the local radio station. An adjacent party at the restaurant began getting a bit rowdy. Someone wondered aloud who they were, and it was whispered that they were the employees who had just been laid off from a gas company in the area. The sight of another lay-off ignited the common discussion about the boom and the bust. The

group began collectively rehashing a common discourse of long-term residents, that in some ways things are actually better now in the post-boom period. They argue that all that speculation during the boom just caused trouble. Many people were swept up in the boom and overtaken by greed. For people like themselves who were truly committed to the community, no house price would ever have persuaded them to sell their family homes and leave their beloved community. It should be noted that many in this group did not own their own homes, and this discussion was largely directed at a friend, Sarah.

Sarah is very dedicated to the community, working tirelessly at this group and intensely involved in two different sports teams in which her children play. However, she was recently facing financial stress, so much so that she was contemplating having to leave the organization for more lucrative work in the mines. Her mortgage was a particular burden, as her family's large house was purchased and renovated during the beginning of the boom years. When I first visited her home, I commented on how beautiful it was to which she responded, "Yeah and we've got the mortgage to prove it". Yet in the context of this group discussion, she agreed that she loved living in Moranbah and would never sell the home in which she was raising her family. However, as the conversation moved on and the focus shifted to other people at the table, she leaned over to me sitting beside her and whispered that sometimes she thinks about how much better things would have been if she had sold during the boom. "We got offers for over a million," she whispered with a tinge of regret.

In some ways, the moral accusations that get volleyed around Moranbah reflect the generalized precarity and anxiety that has come to filter into many aspects of life in Moranbah—Christmas parties share the restaurant with the good-bye parties of laid-off

workers. The continual lay-offs, the difficulty of building relationships, and the generalized uncertainty have led to a search for blame. Allegedly acquisitive investors, like Kate, have become the prime targets of blame. Her role in upsetting the local housing economy by turning a previously company-provided entitlement into a source of speculative profit makes her culpable for contributing to the demise of the local emplaced community that favours nuclear co-habiting families. Of lesser or no weight in this local account of the rise of long-distance commuting practices and its relationship to housing provision is a negative assessment of the banks, the regulators, or the mining companies whose employment practices created this situation.

Moral accusations in Moranbah—and more broadly in Australia through the figure of the CUB and boganaire—which are volleyed back and forth between locals and outsiders as accusations and counter-accusations, tend to pathologize and encourage an ideology of individual responsibility. This obscures structural and institutional failures. Accusations of greed are a visceral condemnation which derive their accusatory power from their indictment of personal moral failure, which is inherently corporeal and pathologized (Robertson 2001). Thus, the greedy individual or class of people, and their corporeal moral failure, become the site of struggle in which such allegations are flung about. The figures of the CUB, boganaire, and the real estate speculator reveal the way in which precarious affects turn political economic conditions into interpersonal moral accusations.

Xenophobia and Growing Nationalist Populism

The outsider real estate speculator represents only one location for the displacement of these precarious affects. Outsiders, more broadly defined, are also increasingly seen as

targets for these negative sentiments. I first began to take note of a xenophobic and particularly Islamophobic discourse in relation to the 2016 Federal Election which took place while I was in Moranbah. I will now describe how the moral accusations around labour transformation have become entangled in a growing nationalist populism which resonates with similar global trends, while taking into account the important local context.

The electoral division, Capricornia, so named because the Tropic of Capricorn passes through it, is a marginal electorate. With a history of close contests between the Australian Labour Party (ALP) and the conservative Liberal National Coalition (Coalition), the region received considerable attention from national politicians. The ALP candidate, Leisa Neaton, made several trips to the region. One event in Clermont was poorly attended, so much so that it was only me, one other resident, and the local man who had organized the event. She still spent the afternoon answering our questions. She was a school principal in the city of Rockhampton and was more socially progressive than many in Moranbah. She talked quite a lot about Australia's immigration policy, and the ALP's role and support for the offshore detention of migrants who arrive by boat in camps in Manus Island and Nauru—a major national political issue. Leisa admitted that "history will not look kindly upon this period in Australia's history, but I have to tow the party line when it comes to people seeking asylum." It is more common in the discourse to call such people 'asylum seekers,' but she explained her phrasing:

> I always say 'People seeking asylum' because it's important to remember that they are people first and foremost. There's a list that the [Liberal National] Coalition is floating around to try and say that Labor is soft on immigration, and my name is on there because I've said caring things about refugees.

The other attendee agreed with her position on refugees and said, referring to the slogan 'stop the boats,' which was used to justify the detention policy: "It's disgusting how the Coalition is using a three word slogan to strip people of their human rights," to which Leisa cleverly replied, "At least stop the boats had a verb, now it's just 'jobs and growth'."

'Jobs and growth' was the repetitive slogan that came to define the Liberal National Coalition's campaign in 2016. This also incorporated a not so well disguised anti-refugee sentiment which the immigration minister at the time, Peter Dutton, made clear when he stated:

> For many people, [refugees] they won't be, you know, numerate or literate in their own language, let alone English. These people would be taking Australian jobs, there's no question about that. For many of them that would be unemployed, they would languish in unemployment queues and on Medicare and the rest of it so there would be huge cost and there's no sense in sugar-coating that, that's the scenario (Doherty and Davidson 2016).

Immigrants were to be feared both for taking unemployment payments, while somehow simultaneously taking Australian jobs. Beyond the specific anti-immigrant framing, campaign rhetoric on 'jobs and growth' was an attempt to paint the ALP as too socially progressive, which would in turn hurt the economy. The message emphasized the coalition's management of the economy and translated its pro-business message into the concerns of a non-elite through the language of protecting jobs. Thus the Coalition was intentionally countering the rising critique both of mining companies and the major banks that characterised the Australian left. A political ad from the Coalition that aired

repeatedly encapsulated this message. A man in a thick Aussie accent and on a coffee break on a worksite in a hi-vis vest says:

> Mr Shorten [leader of the ALP] wants to go to war with my bank; he wants to go to war with our miners…Well I'll tell you what happens when you get a war going on in the economy, people like me lose their jobs, so I reckon we should just see it through and stick with the current mob for a while.

Although heightened through particular local conditions, this discourse matches rather closely to how Kate's message failed to resonate with the local community. The mainstream conservative party was clever in highlighting the connections that linked protecting coal jobs to protecting coal companies. This allowed the pro-business Coalition to present themselves as a better advocate for labour than the Australian Labor Party, whose progressivism is deemed a threat to coal livelihoods. The double bind faced by coal communities is directly obvious here. In choosing between the two major parties, one must either preference the coal industry on which they depend by voting for the conservative Coalition, or preference fighting the labour casualisation they face, by voting for the ALP. Yet, the ALP was felt to be moving closer to the left in terms of its climate and immigration policy, but to the right in terms of its relationship with multinational corporations. Thus, as particularly the 2019 federal election results reveal, many voters are increasingly abandoning the ALP. However, in perhaps attempting to vote out of this double bind, support is not going directly to the conservative Coalition but to populist third party candidates.

The increasing frustration with the ALP became particularly obvious in the lead up to the 2016 election. A few weeks before the vote, the ALP's Shadow Minister for Employment and Workplace Relations, Brendan O'Connor, travelled to Moranbah to

support Leisa Neaton's campaign. He held an event at the local pub, The Workers' Club, in its separate meeting room. Leisa gave a short speech before introducing the Shadow Minister. After giving an overview of the ALP's campaign, he began taking questions from the audience. The crowd of around 40 people was disproportionately male, with many dressed in hi-vis work uniforms, primarily because many would soon be reporting for their night shifts. Two main issues were raised in questions. First, questions revolved around the increased casualization of the workforce; then the questions moved to an issue I had not yet realized was a major concern: the 457 visa.

The 457 visa is the foreign skilled worker visa. The visa is intended to provide a temporary work visa only when the required skills are not available domestically. Although there were a number of foreign-born people living and working in Moranbah—1,094 according to the 2016 census (ABS 2016)—there was not a significant number of low-skilled foreigners taking operating jobs. Further these mostly (337 of them) were New Zealanders, who did not need visas to work in Australia. Others were South African mine management, European engineers, Au Pairs, and of course anthropological fieldworkers. The outsiders who FIFO'd and DIDO'd were primarily Anglo-Celtic settler Australians, thus I hadn't previously realized that foreigners were viewed as a significant issue in the local labour market.

However during the public meeting, a middle-aged man in hi-vis asked what the ALP was going to do about the mining occupations on the 457 skill shortages list. Brendan O'Connor answered that if there were jobs on there that locals could fill, they shouldn't be on the list. He did not back away from the need for these visas to fill certain

positions, but he emphasized that 457s would only be used when there is a legitimate skills shortage.

Unsatisfied with his answer, another man followed up ignoring the formal procedure for asking questions. He simply stood up and said: "In the mine I work at, there used to be 14 or 15 apprentices at a time. Now, BHP is only taking 12 apprentices in all of Queensland. They are making a skills shortage. They want it so they can use cheap foreign labour." To this, the minister responded in an evasive manner that frustrated much of the room, "I can write a bunch of regulations, but the real way of getting job security is having the skills that will be in demand in the future. And the labour market is changing at a faster rate than ever. So we need to focus on education, technology and maths." Hound Dog from chapter one spoke next, again out of turn, "We should have no unemployment in Australia before we let in 457 visas!"

This became a frustrating exchange and the formal meeting began to unravel. One man began making audible grunts of frustration at the Shadow Minister's responses. Finally another man asked, "Why should we trust you? You are getting all this money from corporations." To which Brendan O'Connor calmly responded with a discussion of the ALP's financial donation disclosure policy. The heckling man yelled out in response, "Same shit different shovel!" before storming out of the room. As he approached the door to leave, he hurled one final insult at the Shadow Minister: "You're a pinhead!"

The meeting ended soon after this scene and the crowd dispersed into the pub itself. The politicians all went to the family friendly restaurant section of the pub, whereas the workers moved to the sports betting and bar section where the conversation turned to the frustrating nature of electoral politics. Hound Dog said: "In their suits and

ties, these guys just don't get what we have to deal with out here." He continued with a joking wink, "Not like you, Kari". He was poking fun at how I didn't really fit in with this group of middle-aged male miners. However perhaps he was also expressing in this gesture that the xenophobia expressed earlier did not apply to me, for I chose to sit with the workers rather than the politicians who Hound Dog had witnessed invite me to join them.

These discourses around the federal election pointed out a growing frustration with the Australian Labor Party, and perhaps the major parties more broadly. Although this 2016 federal election results only showed moderate losses for the ALP, the following federal election in 2019 saw a massive swing of +16.98 per cent to a third party called One Nation, mostly drawing from the ALP's support (AEC 2019). One Nation is essentially a right-wing populist nationalist party. It's leader Pauline Hanson first appeared on the political scene in the mid-1990s. The party is protectionist, against Australian multiculturalism, intensely critical of Aboriginal welfare, and fundamentally focused on stopping migration. The party is blatantly Islamophobic and lately has managed to increase its popular support by being explicitly pro-coal, denying climate change, and calling for Australia to withdraw from the Paris Agreement.

One Nation did not run a candidate in the 2016 election however, so the fight for this xenophobic vote was primarily between the two major parties. Perhaps having learned from this encounter with the Shadow Minister, on election day morning the regional paper, the Daily Mercury, featured a full front cover ad taken out by the ALP which read, "Put Aussie Jobs First. Stop the Foreign 457 Visa Rorts." The giant bold font was accompanied by a picture of a solemn looking man in an orange hard hat and head

torch—more a stock image caricature than an actual photograph of a contemporary

miner. Further complicating this xenophobic sentiment, only days before the election

posters appeared on what seemed like every third tree lining Moranbah's main

thoroughfare, which read: "Protect our Democracy from Islam." When I saw these

posters, I realized that perhaps wanting to avoid difficult conversations with my research

participants, I had made a crucial oversight deriving from my own desire to empathize

with their plight. Previous to the election, I had had many conversations where a

discussion about labour casualization turned into diatribes of Islamophobia. I usually

attempted to redirect these conversations back to the topic of labour and community, not

seeing that perhaps there was something my interlocuters were trying to share with me,

but that I was refusing to hear.

In Mazzarella's review article of the anthropology of populism, he discusses that

although the explicit study of populism is new to the discipline, anthropology has a

populist tendency, in that we are primarily concerned with "the common sense of the

common people" (2019, 46). However, in the current political context with the rise of far-

right populism typified in Trump's election and the Brexit referendum, this "puts

pressure on the anthropological imagination, as the common sense of the common people

is becoming increasingly hard to swallow" (Mazzarella 2019, 46). I certainly felt this

pressure and realized too late in my fieldwork that I needed to pay attention. Therefore,

this section is somewhat speculative and draws from experiences in my fieldnotes rather

than a systematic investigation.

The 2016 Australian federal election was taking place at the same time that

Donald Trump was securing his position as the Republican Party's nominee. Eventually

the connection between Trump's campaign promises to bring back coal jobs and his anti-immigrant and Islamophobic messaging started to connect with what I was observing in my fieldwork. I was often asked if, as an American, I would be voting for Trump. Although there was some criticism of his general demeanour, there was also excitement. "I love to hear him talking about coal miners. He's on our side," Hound Dog told me. As Jessica Smith has argued, "Trump aligned himself with the discursive power of miners as an icon of white working-class masculinity whose labor 'made America great'" (Smith 2017, np). Trump's alignment with coal miners also crossed national borders. In Australia, he also appealed to this symbolic coal miner, the non-CUB morally righteous figure whose labour built Australia. However, this is not only a working-class phenomenon. As Smith argues this emblematic figure also appealed to the middle class in the US "who copiously consume the cultural mythology surrounding miners as emblematic of their own cultural and economic anxiety" (Smith 2017, np). Hugh Gusterson similarly tells us that to understand support for the populist right, it is necessary to look at the petty bourgeoise who are "resentful of the educated cosmopolitans above them, and intensely fearful of slipping into the working class below them" (Gusterson 2017, 212).

The class dynamics in Australia do not match perfectly with those in America, however these authors are suggesting something critical that does apply to the Australian example. Coal miners in Australia, through their relatively high wages, are perhaps more accurately related to this middle-class who are particularly fearful of slipping into an impoverished working class, yet they maintain a positive moral association with the emblematic figure of the proud coal miner whose physical, male labour has made

Australia great. They are also simultaneously threatened by a cosmopolitan elite who critiques the moral value of their labour and regulatory regimes seeking to limit carbon pollution and the future of their valued industry. This fits Kalb's definition of populism:

> More broadly conceived, populism refers to the moods and sensibilities of the disenfranchised as they face the disjunctures between everyday lives that seem to become increasingly chaotic and uncontrollable and the wider public power projects that are out of their reach and suspected of serving their ongoing disenfranchisement (Kalb 2009, 209).

The boom and bust of commodity cycles and the speculative nature of global markets creates instability in Moranbah lives, but so does the threat of decisions on climate change that threaten the broader industry of which they are a part. Further climate change and moral accusations that arise around it undermine the moral associations and self-conceptions of their labour's value.

The relationship between Islamophobia, climate change denial, and the appeal of nationalist third parties is complex. It was of course attached to a global discourse spread online and in conservative media, but it also resonated locally. These Moranbah locals, like the Polish nationalists Kolb studied, "articulate their bricolages of critique from combined bits of direct experience and mediated right-wing protest frames" (Kalb 2009, 208). However, why did Islamophobia resonate locally, what was the "direct experience" (ibid) on which this critique drew? There were very few Muslims in Moranbah. The 2016 census counted 32 out of Moranbah's 8,333 residents (ABS 2016). So why did Australia's Democracy need protecting from Islam, as the election posters claimed? In order to make sense of this, I noticed a particular trend in how many miners framed their Islamophobia.

Paying more attention to the discourse of my close informants, in this case always white male Australian miners, what was expressed was a specific critique of Sharia law. Although there were many times when a conversation about workforce casualization turned into a discussion about Islam, Hound Dog used to get particularly worked up about it. This is only one of many conversations we had that followed a similar pattern. This time we were having dinner at a local Chinese restaurant, he was paying because he had just won $500 at the pokies (slot machines). The conversation started with a discussion of the importance of the union in protecting workers, particularly their physical safety and how many of the new younger miners didn't realize how much they owed the unions. All of a sudden, the conversation changed and he asked me, "Did you know that parts of Australia are under Sharia law now?" I tried to change the topic: "I don't think that's true. There might be some communities that follow different traditions but they are still under Australian law." He persisted: "No, in all the Muslim neighbourhoods it's the law. They don't have to follow Australian law." "That's not true" I repeated. Then trying to appeal to me as the feminist he knew I was, he said, "No, they let these old men marry girls, like ten-year-old girls. It's disgusting!" I replied, trying to keep a calm and reasoned voice, "That isn't legal in Australia. Most Muslims are just like you and me. Plus there are plenty of Christians who do despicable things too, and we don't think they represent all Christians." He responded, "Look I don't have any issue with Muslims, but if they're going to be here, they have to follow our law." This focus on Sharia law, rather than Muslims themselves was repeated often. It often slipped easily into a general racism, but the intensity of disgust was focused on the intrusion of this foreign normative system.

As Australian social theorist Ghassan Hage has asked, "how do some subjects come to think that in acting Islamophobically they are protecting what makes their lives worth living?" (Hage 2017, 13). In his book *Is Racism an Environmental Threat?* he answers the provocation by arguing that the forms of othering and domination behind both racism and environmental destruction are the same and can't be separated from the colonial foundations from which they have arisen and further reproduce. This is quite in keeping with theorists that emphasize the fundamental ontological modern-colonial foundations as a sufficient explanation for the Anthropocene, which I argue against in the introduction. However, Hage has a particular nuance that I find critical to understanding the specifics of how this works out in the Australian context, that is, his theory of generalized domestication (Hage 2017, 15). This, as described in chapter one, is a mode of inhabiting the world in a settler-colonial framing, through which concepts of home are directly tied to the control and domination of the natural world (Hage 2017, 94). As I have also shown, this control is felt to be slipping away, less through the rise of extreme weather events than from the increased labour and social precarity that limits the community's ability to control and respond to them. Thus home, and concepts of belonging, including who does and does not belong, can be related to the domesticated environment as a product of white male labour and emplaced nuclear family. The settler-colonial moral framing which emphasize the human co-constitution of nature in the making of home and the positive association around mining labour's productivity is undermined through what is felt to be outside forces: climate negotiators meeting in Paris, mining company boardrooms in London, urban Australian Greenies, or real estate investors.

Further, the accusations that Moranbah miners face, particularly those that critique their moral character, such as those linked to the CUB accusation, are experienced as threats to valued normative (settler-colonial) frameworks from the outside. Whether these are in the form of critiques of greed, laziness, and environmental destruction, they are in contrast to a local moral ideal that is still linked to a form of extractive labour which builds social community. This analytical frame helps explain why it was less the presence of Muslims than the threat of a foreign moral order, in the form of Sharia law, that received the primary focus of this Islamophobia. As I have shown thus far, this is a settler-colonial framework, it is conservative and patriarchal, and the critique is misplaced. However, as Hage further provokes, "If Western societies are feeling besieged, it might be because they are" (Hage 2016, 45).

Conclusion

The increased precarity of labour and emplaced community life in Moranbah derive from a dialectic between the increased automation of the mining process, casualisation, decreased labour unionism, and the increase in FIFO, which have led to changing attachments to local mining communities and established forms of male-headed nuclear households. These changes undermine the symbolic and historic associations of the mining industry with a community minded ethic. The representations of the coal miner as a CUB partially reflect these conditions but do so in a way which highlights personal moral ineptitude rather than structural causes of this precarity. This shifts the moral rhetoric around the coal industry, which becomes saturated with images of consumption, greed, and speculative wealth. Partially in response to these moral indictments, locals distance themselves from the practice of financial speculation, which saw them direct

particularly strong counter accusations at real estate speculators like Kate. The accusations of greed directed at Kate reflect the moral anxieties about the increasing precarity of the coal mining communities and reflect their search for someone to blame. Numerous other Facebook comments reflected this anxiety, linking Kate's interest as directly opposing those of the community: "Thanks Kate Maloney—looks like your personal interests will continue to come before Moranbah's."

Within Moranbah the local moral economy privileges an attachment to the community, including a domesticating relationship to nature (Hage 2017), which is increasingly under threat due to changing labour conditions, particularly the increase in FIFO. Although FIFO is a direct result of mining company employment practices, the creation of the conditions in which FIFO was able to take hold are more easily attributed to people like Kate and her husband through their outsider status and their speculative motivation for buying housing. Contemporary class differentiations have been increasingly enforced through outside discourses and symbolic associations in which personal responsibility and pathologized morality become a form of distinction (Skeggs 2005) which enforce social and political division and may help explain the rise of far-right populism locally.

Rahul Oka and Ian Kujit have argued that, in the aftermath of the 2008 Global Financial Crisis, greed has "remerged as a global narrative" to explain increased inequalities (Oka and Kujit 2014: 3). Yet the back-and-forth volleying of greed accusations around Australian coal mining shows that they reveal certain inequalities while obscuring others. I have argued that accusations of immorality around speculation and the changing value of labour turn structural inequalities or institutional failures into

pathologized moral ineptitudes assigned to particular individuals or groups of people. While accusations of avarice can be mobilized by the lower classes, they do little to alter the inequalities which they attempt to highlight, for they require the presence of bodies and are most easily deployed against already pathologized lower classes, such as a young female speculator, Queensland 'bogans', or Muslim refugees.

Such moral accusations instead distract and divide populations in a back and forth contest for blame over experienced insecurities deriving from shifting political, economic, and social conditions. In the particular case of coal mining, they reinforce the political impasse of 'jobs versus the environment' which haunts political action on climate change for they obscure the shared structural conditions of precarity. This has particular consequences for the politics of climate change mitigation in Australia, where political positions become linked to pathologized accusations divided by class and occupation. The thesis will now continue with questions of moral accusation but also introduce my second research location amongst pro-coal lobbyists in the Upper Hunter Valley. Pro-coal lobbyists similarly face the moralized atmosphere of Australian coal in the Anthropocene.

PART TWO: Precarious Environmental Futures in the Upper Hunter Valley, NSW

Figure 4.1 Photograph of the Upper Hunter Valley taken from a horse racing track, with an advertisement for a local winery, grazing cattle, and an open-cut mine in the background (photograph taken by author)

INTRODUCTION TO SINGLETON AND THE UPPER HUNTER VALLEY

Although Moranbah celebrated a pioneering self-conception in the 1970s, it was towns like Singleton, New South Wales that served as the inspiration for this settler-colonial imagination. As discussed in the introduction to this thesis, not far from Sydney, the town of Newcastle, formerly called Coal River, became the hub of a growing coal mining industry as convicts—many transported from the town's namesake in England—were sent to mine underground in the first decades of the 19th century (Comerford 1997: 117). The river which met the sea in Newcastle, the Hunter River, inspired explorations along its banks and into the country's interior to the Upper Hunter Valley. William Parr led the first official expedition to the area today called Singleton in 1817. Subsequent expeditions led by John Howe and Benjamin Singleton, saw the men granted land concessions there in 1820. Singleton, for whom the town is named and on whose original land grant the town is built, settled in the area. When he established the Barley Mow Inn on the Hunter River in 1827, a larger settlement began to emerge with 300 land grants given to 206 settlers in the next five years (Singleton 2004).

In 1860, the first coal mine opened at Rix's Creek, five kilometres north of town. The railway arrived in 1863, spurring further growth, and by the late 19th century there were 16 coal mines in the district (Singleton 2004). Surrounding the town were both large landowners and small farmers who built an agricultural base which coal mining supplemented. As more settlers moved into the area, the aboriginal population, primarily the Wonnarua, were massacred and displaced. Many were moved to the aboriginal mission at St. Clair once it was established in 1893 (Singleton 2004).

This settler-colonial history is visible in the architecture of the town still today. The original town courthouse and goal—built in 1841—now holds the Singleton Historical Museum. Several pubs built in the mid-19th century are still serving rum and beer, including the Caledonian Hotel, built in 1851. I often met friends for drinks at the 'Cali' not knowing at the time that its claim to fame was that the infamous aboriginal bushranger, Joe Governor's body was laid out here after being killed by two farmers (Walsh 1983).

The early underground coal mining here was smaller than the mining that occurred closer to Newcastle, in the areas around Maitland and Cessnock, in the earlier 20th century. However as technology changed and open-cut mining grew, the Upper Hunter Valley and the area around Singleton (and Muswellbrook, 50 kilometres north) became the hub of modern open-cut mining in New South Wales. The major expansion started in the early 1980s and has continued since. This area produces high-quality thermal coal, most of which is destined for export. Today there are 35 mines producing approximately 150 million tonnes of coal per year. This feeds the Hunter Valley Coal Chain, the rail-link that connects the Upper Hunter's mines to the world's busiest coal export terminal in Newcastle. Much of the coal is destined for Asia, 85 per cent of it going to Japan, Korea and Taiwan (HVCC). There are several mining companies operating in the region, including the major international companies like BHP, Glencore, Anglo-American, Rio Tinto (which operates locally as Coal & Allied), and Peabody, as well as smaller companies, such as the Australian owned private company Bloomfield.

No matter in what direction you travel to or from town, you must pass by at least one large open cut mine. Within the town itself, the most constant reminder of mining's

presence is the activity on the railway line. Almost two-kilometre-long trains,

transporting 8,500 tonnes of coal each pass by the town approximately every hour.

Mining is also represented symbolically. The more contemporary local bar is called the

Singleton Diggers, a popular local restaurant is called the Coal Rock Café, and people

wearing hi-vis uniforms fill the streets and supermarkets. Singleton is also connected to

the broader coal industry, partly through the transience and short-term contracts that have

come to define working in the industry today. There were several people I knew in

Moranbah who had previously lived in Singleton or who had friends who had moved

there recently.

However, the much longer settler-colonial history than Moranbah's, and the

presence of large and small-scale agriculture, means that the Hunter Valley is not only

known for its mines. Today, the region hosts many other rural industries, including a

thriving thoroughbred horse breeding industry and a number of wineries. The larger

population—22,987 residents (ABS 2016)—further means that unlike Moranbah, not

everyone here has a direct connection to the mining industry.

The town faced similar dynamics in terms of increased labour casualization in the

mines. There was an increase in the number of contractors and decreasing permanent

employment which affected the coal workforce here. Drive-in-drive-out was also

relatively common, but because of the alternative industry around and the fact that the

area was much more densely populated with many smaller towns and settlements, the

dramatic effect of these practices was reduced, and the social impact was buffered. Town

gossip did not entirely revolve around rumours of lay-offs in the same intensity as

Moranbah, nor was the union as fundamental a local presence. However, the town had

also experienced the recent commodities boom (2008-2012) and subsequent bust, through which the town's optimism about the industry's role in its future was increasingly undermined. As a key informant Mark—who will be introduced in more detail shortly—told me, "Now that everyone isn't making tons of money from the mining boom, we [the coal industry] can't get away with as much as we used to."

Because the town was not as dependent on the mines, critiques of the industry—particularly its environmental impact—were much more prevalent. When introducing myself and explaining that I was in town to do research on the coal industry, most people instantly gave me an express opinion of being anti-coal, pro-coal, or "I'm not against coal, but…" followed by their particular point of concern. This political division in the community made talking about coal difficult sometimes, particularly for local government officials who had to manage these competing interests. Through attending many local council government events, I noticed a pattern in how officials managed to neutralize the disagreements with a statement like, "We might not agree on when it is going to happen, but we can all agree that *eventually* mining is going to leave the Hunter." This was either from the actual depletion of the reserves, from political action, or shifting economics.

Therefore, unlike in Moranbah where there was practically no opposition to mining, in the Hunter Valley the coal mining industry funded an active lobbying effort to garner and maintain community support. Community relations managers were more critical figures than they were in Moranbah. Similarly, the state's Coal Lobby Organization set up a branch in Singleton to actively promote the industry locally. This local branch, the Coal Community Conference, became the primary location for my

participant observation in Singleton, and I travelled with those who worked in it to events in the broader valley, particularly the town of Muswellbrook.

This second section of the thesis will focus on the moral and political contests around coal mining and its future in the Upper Hunter Valley, particularly a growing environmental precarity in the context of landscape transformation and climate change concerns. I will first describe the organization in which I did my fieldwork in more detail and explain the moral contests through which pro-coal lobbyists related to the commodity in the context of the moralized discourse around climate change. Then chapter five describes the contests over regional planning regimes and land-use conflicts between the mining industry and thoroughbred horse breeding industry. Finally, chapter six will discuss the political and affective debate over mining landscape rehabilitation and the speculative knowledge it engenders.

CHAPTER FOUR: The Moral Case for Coal: Ambiguity and Complicity with Pro-Coal Lobbyists

Mark and I spent many days sitting under a marquee at local community shows in the region. Most were sponsored by Glencore, a major international mining company operating in the area. The main events of these shows—or local fairs—were always various competitions: wood chopping, handicrafts and farm animals. There were numerous stalls selling fried foods and sugary treats and long lines at the few small mobile amusement rides. We were always the only non-entertainment or non-consumption related booth. Resultantly, these were very boring days as hardly anyone wanted to talk to us. We were not particularly appealing to the passing crowds. All we had on our table was a stack of empty forms and a few posters hanging up with far too few pictures and far too much text to catch the eye. We rarely stood up from behind the table and hardly ever greeted passers-by. When anyone dared approach, we attempted to get them to fill out a short questionnaire. This asked them questions about their perception of the mining industry, but it primarily served to get their email address for the listserve. The forms were then counted as a 'contact' with a community member. We often joked that this language of 'contact' was oddly tactile, but Mark dutifully tallied each brief interaction to legitimize these community outings as important work of the organization we were there representing: the Coal Community Conference (CCC) of the New South Wales' Upper Hunter Valley. This group, as I will soon describe in more detail, was essentially a local lobbying effort of the state's Coal Lobby Organization (CLO).

Mark and I's passive involvement at these shows reflected a general ambivalence with which the pro-coal lobbyists that I came to know often acted in their work as defenders of the coal industry. They often fulfilled the requirements of their formal employment but as these moments at the community show reveal, with little zeal. Often lobbyists were open to critical discussion about the coal industry with me and were quite aware of the inconsistencies between the industry rhetoric they crafted and the reality they encountered. I was privy to these internal critiques as I became a co-worker. However, over ten months observing and participating in their work, I came to recognize a pattern in the moments in which their usual ambivalence transformed into a strong and passionate defence of the industry. Their lobbying efforts were strongly motivated to counter interpersonal moral accusations coming from outsiders to the lobbying group, particularly friends or family. These moral accusations were perceived to impugn their character by connecting them directly to the perceived untrustworthiness or immorality of the coal industry.

This chapter adds to a growing body of climate change reception studies, which look at the way in which moral and ethical claims are linked to climate change and energy use (Ferguson 2012; Nader 2004; Rudiak-Gould 2011, 2014; Smith and High 2017). However, it speaks most closely to those that look specifically at the relatively privileged and those who are most closely implicated in climate change (Hughes 2013, 2017; Norgaard 2006; 2012). These authors have attempted to explain the forms of denial and complicity of those whom they deem variably guilty of perpetuating climate change. Both Norgaard and Hughes believe that this denial and complicity comes from the insufficient integration of morality. For Norgaard, Norwegian denial comes not from

ignorance of climate change but from an unwillingness or inability to integrate the moral

demands of climate change into everyday lives (2006, 2012). Hughes emphasizes that

complicity with climate change comes from the construction of oil in Trinidad as "energy

without conscience" and that those working in the industry are complicit because their

work is insufficiently moralized (2017). I saw something different amongst the coal

lobbyists I got to know. It was precisely when morality became the topic of discussion

that they became passionate in their pro-coal position. This occurred primarily in relation

to questioning from their children, which gave a moral weight to their defence of the coal

industry. Thus, it was precisely the integration of the moral and ethical concerns of their

work into their everyday lives that produced and reinforced their complicity with

anthropogenic climate change. As I became more involved in their work, and similarly

complicit in this moral terrain, I began to question how I could critically engage with

discourses of the coal industry while also taking seriously the everyday lives and

experiences of those defending it. And I began to ask, what does such attention to the

everyday lives of these actors tell us about the role of ordinary ethics in the production of

complicity?

This chapter thus introduces the growing anthropological attention to ordinary

ethics into the literature on climate change reception studies to argue that the everyday

ethical deliberations of pro-coal lobbyists must be taken seriously if we are to understand

the workings of power that reproduce the moral weight of the coal industry for its

defenders. The ethical turn in anthropology has brought increasing attention to the way in

which everyday life is imbued with ethics (Fassin 2014). Of particular relevance is the

framework of 'ordinary ethics' (Das 2012; Lambek 2010; Stafford 2013) which seeks to

highlight ethics in everyday speech and acts. The emphasis of this approach is less on the sort of moral breakdowns (Zigon 2007) or large-scale value hierarchy destabilization (Robbins 2007), but rather how such cases "are drawn into and draw from the ordinary" as habitual tacit acts (Lambek 2010: 3) or most relevantly to this chapter, as explicitly reflected upon judgements (Stafford 2013: 101). Therefore, explicit moralized discourse can present the space in which people craft ethical decisions within their everyday lives, sometimes explicitly acknowledging them as such and at other times not, but nonetheless engaging in ethical deliberation. In this framework, to be ethical is not necessarily to follow a universally defined good, rather it is to be evaluative. Ethics refers to the field of action, speech, and reflection in which this takes place.

Of particular inspiration is Hans Steinmüller's application of ordinary ethics to understanding how complicity with state corruption is produced through entangled intimacies and interpersonal relations in China (Steinmüller 2010, 2013). It also draws on Steinmüller's emphasis on the ironic and uttered asides through which forms of moral ambiguities between official discourse and lived socialities are acknowledged within intimate relationships, or what he terms "communities of complicity". Although inspired by Steinmüller's attention to the everyday production of complicity through intimate relations, this chapter also contrasts this to how such shared understandings are countered by forms of interpersonal moral accusation. I will show how such moral accusations end up reproducing another form of complicity, for the way in which they inspire pro-coal lobbyists to more stridently defend the industry in which they are implicated as co-conspirators.

I will first describe the context of my fieldwork and introduce some of the lobbyists that I got to know, framing the context that this second section of the thesis draws from. I will describe how my role within this organization—and the interpersonal relations I developed with the pro-coal lobbyists—allowed me to witness the ambiguities through which they related to the industry, often through whispered asides of critique. I will then move on to discuss how the coal industry is increasingly represented as morally dubious and show how this moral framing filters into the way in which the coal lobbyists became implicated in the moral debates which frame the context of their work. However, rather than this moralized landscape causing lobbyists to question their role in propping up the coal industry (Hughes 2017; Norgaard 2012, 2016) it causes them to rise more strongly to its defence, encouraging their lobbying efforts and reinforcing their complicity with climate change.

The Work of the Coal Community Conference

The Coal Community Conference (CCC) is fully funded and ultimately under the direction of the New South Wales Coal Lobby Organization (CLO), the state's main mining lobby group. The CCC was started in 2011, at the height of the mining boom in order to address a number of community concerns that arose as a result of the increased mining activity at the time. The CCC is presented as being neither pro nor anti-coal, but a neutral body for expressing community concerns. However, because the CCC is fully funded by the CLO this is a false neutrality. The head of the CCC, Sam, expressed this to me using the example of the CCC's logo. The logo is exactly the same as the CLO's, except that it is in green instead of blue. Further, all decisions ultimately rested in the executive committee composed of mine representatives and the head of the CLO, and all

local meetings to which community members were invited were always preceded by an industry only meeting in which the itinerary for the joint meeting would be worked out in private. Sam understood that this was a necessary condition of the funding which came from the larger lobbying organization—of which he was a direct employee—but he also recognized that this led to a perception problem for the CCC. Many saw the CCC as a further lobbying effort rather than a legitimate organization that wanted to deal with community concerns.

The everyday activities of the CCC was a series of meetings held monthly around a large conference table. The main topics of discussion were reports on the progress of the projects that had been started in the earlier years of the group. The three main projects that continued throughout my fieldwork were a pilot study that was grazing cattle on rehabilitated mine land; a weather monitoring system that was meant to reduce dust from mining blasts limiting them to preferable wind conditions; and a water accounting framework that was recording the amount of water used and released back into the local river by the mining industry. There was an earlier project meant to deal with the increased housing pressure caused by the mining boom—reflective of the conditions in Moranbah described in the previous chapter—but this project was ended as the subsequent mining bust had relieved the housing demand.

The members of the CCC could loosely be considered those who attended these regular meetings, this includes the few employees of the CLO who served as the secretariat, including Sam and Mark who directed the general operations. There were also a number of representatives from each mining company that was a member of the CLO. These included the major players: Rio Tinto, Glencore, Anglo American and BHP, as

well as the Australian mining company Bloomfield. Each mining company was represented by either a community relations manager or an environmental manager who attended meetings. Meetings were also attended by a representative of the surrounding local council governments, although not regularly. A member representing a state government department, often the Department of Planning and Environment, would be invited if there was a point of order that related to state regulatory policy. There were also a number of so-called community members who attended occasionally, one woman who was previously a journalist and a friend of Mark's showed up irregularly, as did a representative of the local irrigators' association, but the only regular 'community member' attendees were two local environmentalists.

These two local environmentalists were the only strong critical voices in this space. They were often politely listened to, but the conversation would then move on without taking into account their views. By the time I left the field, one of them, a retired professor of agricultural science, Drew, stopped attending, having grown too frustrated with the process. I will discuss him, particularly his views of the final voids, in chapter six. The other, Sally, was an elderly woman with a long family history in the region as a landowner and dairy farmer. She had already once been forced to sell a piece of her land to an encroaching coal mine. Interestingly because her family had such a long history in the region, she also owned the sub-surface rights which were once granted along with land rights in the mid-19th century. This meant that Sally also received royalties for the coal mined on her former property. This financial benefit was often used to try and discount her environmental activism as hypocritical by some of the lobbyists. However, Sally was now singlehandedly standing in the way of another mine expansion, refusing to

sell her remaining land. This saw her win a very prestigious global environmental award during my fieldwork.

There are many more activists who actively oppose coal mining living in the region, some of whom I will mention in chapter five. However, having interviewed several, they actively chose not to participate in the CCC because they viewed it as merely an extension of the industry lobbying efforts. Thus they felt it could not sufficiently address their concerns about the environmental harm they felt the industry was causing. In the words of a local environmental activist, "Look, this is an organization commissioned by the mining industry to either placate us or to sell us on how good they are. It isn't going to solve any of the serious issues we have with the mines."

The underlying motive of the CCC was partially about securing the social licence of the mining industry to operate in the region through engaging in dialogue with local residents, taking into account their concerns, and designing various projects that might address them. The fundamental tension, however, was that although there was a willingness by the mining industry to try and come up with solutions, they would only consider those that were compatible with keeping mining operations more or less undisturbed.

The CCC thus reflects broader trends towards corporate social responsibility (CSR) analysed elsewhere (Ballard and Banks 2003; Barry 2004; Cross 2014; Frynas 2005; Gardner 2012; Rajak 2011). The CCC particularly fits into Benson and Kirsch's (2010) typology of corporate responses to critique. They argue this follows three phases: "denial, acknowledgement, and token accommodation." (2010: 459). The CCC represents this third phase, where the threats to the corporation are strong enough that they begin to

appropriate the strategies of their critics, in this case, taking into account community concerns and engaging in small projects that accept the problem but do little to resolve the underlying disagreement (Benson and Kirsch 2010).

However, I am less concerned in this chapter with the operations of the group particularly as viewed as a monolithic entity. Welker has pointed out how much analysis of CSR looks at the corporation as a monolithic, rational, calculating, profit maximizing machine, or as Welker calls it, the "*Homo economicus* model of the corporation" (2014: 2). Instead she calls for attention to the corporation as "inherently unstable and indeterminate, multiply authored, always in flux, and comprising both material and immaterial parts" (2014: 4 see also Shever 2012). Welker shows that despite the political usefulness of the monolithic view of the corporation for critique, it "comes at an ethnographic and epistemological cost, severing corporations from the ordinary materials, human practices, ethics, and sentiments (such as desire, fear, shame, pride, jealousy, and hope) that sustain them" (2014: 16). This chapter thus continues to refuse a monolithic view of the mining corporation or the coal lobby, as it refuses such a view of the Anthropocene. I argue that attention to the inconsistencies and ambiguities with which members of the CCC engaged in their work defending the coal industry is helpful for understanding the way in which the Anthropocene is made and reproduced.

By the time I arrived for fieldwork in 2015, community concerns had changed significantly from those of the boom and altered the group's foundational mission. Originally set up to address concerns over the impacts from the high levels of mining activity, there was now a greater concern within the town and local government about the future of the region after the mining industry left. The local community members,

especially those who were not or no longer directly employed in mining, considered the local economy to be less reliant on the industry than previously and thus would now more readily make anti-mining arguments on the moral grounds of intergenerational and international justice linked to climate change or the anxieties over the region's dependence on a threatened and threatening industry. Mark once explained: "Now that everyone isn't making tons of money from the mining boom, we can't get away with as much as we used to."

This higher level of disagreement from the community meant that the focus of the dialogue shifted. Previously centred on immediate concerns that pragmatic interventions like weather monitoring for blasting dust reduction could address, it now began to concern itself with the broader moralized demands about the end of the coal industry and the need for diversification. As a result, the focus of the CCC shifted to communication, essentially becoming a local lobbying effort of its own. This is why I consider all those who were formally employed in the coal industry, were actively involved in the CCC and were promoting the positive image of the industry through it, as lobbyists, regardless of whether or not they were formally employed by the CLO.

Mark was hired to set up a local office—the CCC had previously been based at the CLO's offices in Sydney—and to run their new communications strategy in order to communicate the work the CCC was doing, increasing the lobbying focus of its work. Mark previously worked in journalism, managing local newspapers for a large media organization, but was laid-off as these papers had their budgets severely cut due to the disrupting influence of the internet. Other than the regular series of repetitive meetings that took place in the office, much of the work that the CCC did was part of its new

communications strategy. This included attending community events like the local show—described above—as well as Mark attempting to use his journalistic connections to get positive news stories into the local newspapers that described the cattle grazing study and the weather monitoring program in order to spread the news about the CCC and its 'positive contributions'. The work of the CCC, especially as run locally, focused more on communicating the projects that were already running than doing anything to address current community concerns. It thus largely became a locally oriented lobbying group of its own. The only new project that was implemented was the education project I will outline later in this chapter.

The CCC office in Singleton was the main base for my participant observation. However members of the CCC including Mark, Sam, and I travelled to many other events in the region representing the organization. The office itself was in a mostly empty shopping centre on Singleton's main street. I sat at a desk in the front room of the office suite which gave me a vantage point through which to observe and meet those who filtered in and out. Mark had his own separate office beside me, but he mostly kept his door open so we could talk throughout the day. There was a second separate small office room which Sam would use on the days he travelled to Singleton. Sam split his time between the CLO's office in Sydney and the CCC's office in Singleton. Finally, there was a large conference room where official CCC meetings were held with a long table and telecommunication capabilities. Occasionally the office also held other mining related meetings that were not related to CCC business, such as the employment counselling for laid-off mine workers, which I will discuss in chapter five.

The Community of Complicity in the CCC

Throughout my time at the lobbying group, I was struck by the overarching sense amongst industry representatives—those working in management for the mines and those employed as lobbyists—of being unfairly demonized. Having heard so much about the power of the Australian coal lobby, I was surprised to find an actual sense of fear and trepidation in the private spaces and reflections of lobbyists. They recognized that there was a need to be careful about every public record that they produced because they feared it would be picked over by environmentalists looking for any opportunity to find even a minor inconsistency which would then be misrepresented as intentional deceit. There was a genuine sense of anxiety about this. While the goal of the CCC was meant to be about transparency and genuine dialogue, this could not be achieved because of the fear of misrepresentation. I often heard the phrase "the greenies are out to get us" used to justify not publicly releasing some piece of information. They would also argue that, even when they attempted to be open about information, they weren't trusted. "The studies we fund aren't trusted; any information we put out isn't trusted," one said in an industry only meeting. In a similar meeting, a mine environmental manager said: "They're treating us like the tobacco lobby. We're being persecuted like the tobacco industry." (cf. Oreskes and Conway 2010). Critical to this was an insider/outsider distinction.

In moments with me, lobbyists were often relatively open to critical discussion and reflection on the industry. Once I had been around for a few months and proven myself willing to work with them on projects, I was let into what Steinmüller calls a "community of complicity" (2010). Communities of complicity are formed through shared knowledge of the boundaries between public discourse and lived ambiguities. My

co-implication in their work allowed me to be privy to a shared understanding of the ambiguities of the group's work. However, when an outside audience was expected— someone who did not belong to this same space of shared understanding—the official pro-coal discourse was more strongly enforced due to the fear of being misrepresented.

By way of example, one of the tensest moments during my time at the CCC was when I became involved in a study that the CCC had hired an outside research group to undertake. The study was meant to address the problem of low community participation by interviewing former members who had stopped participating. As I mentioned earlier, only two so-called community members attended regularly. There was a head researcher who designed and implemented the study, however Sam and Mark thought that they should have me conduct a few of the interviews. Since I was a 'researcher' they thought this was a perfect opportunity to give me a useful task. The main finding of the interviews we conducted was that most people stopped participating because they thought the CCC was controlled by the CLO, and thus unable to address community concerns that were counter to the profitability of the mining companies.

The head researcher had another appointment on the day that the research was going to be presented to the joint meeting of the CCC—the meeting which includes community members and the minutes of which are publicly posted on the CCC's website. Because of her absence, I was asked to present the findings of the research. I did not think this would be at all problematic. For, as I described earlier, Sam had expressed this same finding to me many times in one-on-one conversation, pointing to how the two organizations had the same logo but in different colours.

An hour before the meeting was set to begin Sam asked me what I was going to present. I showed him my PowerPoint. When I got to the slide with the finding that the main reason that many former CCC participants cited for deciding to leave the group was that they felt the CCC was too controlled by the CLO, he became upset. He implored: "Who said that?". I explained to him that we promised the research participants anonymity and that I couldn't disclose identities but that it was several people. He became exasperated, "Who said that *about me*?" When I repeated that I couldn't disclose that, he relented: "Fine, I know who said that!" He asked me to change the wording of the slide to downplay the finding. I accepted his edits.

Mark noticed how much I had downplayed the criticism, and in the aftermath of the presentation asked what had happened. I told him about my interaction with Sam. He laughed and showed me a video he had seen on YouTube. It was a comedy sketch about two stone age men refusing to make the transition to the bronze age. It was an ironic comment on Sam's refusal to accept critique and change and thus partially re-established our shared understanding of the ambiguity of our work. As was often the case, such ambiguities were often framed through comedy, irony or whispered asides (Steinmüller 2010). There were many cases, some of which will be discussed in the next two chapters, in which Mark, Sam or another lobbyist would whisper an ironic comment to me as we witnessed a particularly strident moment of pro-coal rhetoric.

Aside from highlighting the importance of my positionality, this anecdote with Sam shows how he personalized the critique that the CCC was controlled by the CLO. Sam could express this same point to me, but when it came from someone outside he

interpreted it as an accusation that he was untrustworthy and co-opted. It fed the common fear of being "persecuted like the tobacco industry".

Steinmüller's choice of the term complicity, in his phrase "communities of complicity" points to another important element of this social dynamic. That is, belonging to this group is not just about shared understanding, but about being co-implicated in the morality of the group and its activities. I struggled with whether or not to accept Sam's edits. Ultimately I decided it was a minor issue and was necessary for maintaining my relationship with Sam and the other lobbyists. As I discussed in my thesis introduction, my complicity with the pro-coal lobbyists was more than Geertzian rapport, but also related to my role within a contested moral discourse (Geertz 1972; Marcus 1993). In the case of the coal lobbyists, their work takes place within a heavily moralized context, in which their work is deemed to implicate their moral character. My co-implication thus allowed me to share in the ambiguous ironies through which we commented on our work, without impugning the morality of my friends, for to do so would impugn my own. For lobbyists, who work in defending the industry, the particular view of the industry as immoral was often used to critique the personal morality of the lobbyists themselves. This was particularly reflected upon in the Upper Hunter Valley. An astute mining executive in the region once explained:

> Our employees live in the communities that we operate in. And they walk down the street in their uniforms. On one side their name is printed, on the other is the logo of our company. Those people sometimes have to feel the backlash of our failures.

This embodiment of the industry—where the work of the industry, particularly its negative impacts became attached to the person wearing the uniform—was clearly experienced by coal lobbyists. Lobbyists' active involvement in defending the industry

through their participation in the CCC and CLO meant that much of their work involved

explicit engagement in debate over its rightness or wrongness. This is similar to the way

in which the reputation of the industry becomes pathologized to the workers through the

figure of the CUB discussed in the previous chapter. However, this group of lobbyists is

also relatively distinct from those employed in the mines themselves as operators whose

lives have been the focus of much of the thesis so far. For those physically working in

the mines, there were fewer moments in *everyday life* where one would have to defend

the morality of the industry explicitly, as almost everyone in Moranbah or even in

Singleton, to a lesser degree, similarly relied at least partially on the industry. However,

the lobbyists I knew mostly did not live in the mining towns themselves but commuted

from larger towns and cities nearby. Beyond the geographic proximity, these lobbyists

were more traditionally middle-class, as opposed to working-class miners. Of course, as

described in the previous chapters, these distinctions are more about social capital and

habitus than economic (Bourdieu 2010[1979]). Yet because these lobbyists were mostly

tertiary educated and had previous employment in industries like journalism or state

government, they faced regular questioning outside the workplace, as climate change and

the environmental damage of the mining industry are a regular point of political

discussion in urban Australia. Therefore, it was not only through their employment as

lobbyists defending the coal industry but also the social worlds they inhabited in their

non-work life that they had to manage their moral and ethical position. As Webb Keane

has emphasized, "[b]laming and holding responsible, denying and justifying, are acts

that *both* the agent, *and* his or her interlocutors, are doing, and they are doing them *for*

one another… Ethical life means that people are reflexive, evaluative, and creative—but not alone" (Keane 2014: 455).

Before moving on to describe the way that the lobbyists I knew reacted to these accusations of their immorality due to their employment, I will first outline some of the major discourses that have made coal a particular material around which moral debates revolve.

Moral Discourses of Coal and Climate Change

In October 2015, the then federal Energy Minister, Josh Frydenberg, argued on national television that: "There is a strong moral case [for coal]." He was speaking in relation to the Carmichael coal mine that was being proposed by the Indian company, Adani. This thermal coal mine is to be built in northern Queensland. If it is to go ahead, it will be one of the world's largest coal mines and will export its coal primarily to India. The mine has encountered substantial opposition from indigenous groups and environmentalists, particularly for the significant contribution to greenhouse gas emissions that burning this coal represents as well as the potential environmental effects of shipping it through the Great Barrier Reef. However, Frydenberg argued in support of the mine:

> There is a strong moral case here. Over a billion people don't have access to electricity. That means that more than 2 billion people today are using wood and dung for their cooking. The World Health Organization said that this leads to 4.3 million premature deaths. That's more people dying through this sort of inefficient energy than malaria, tuberculosis, and HIV/AIDS combined, so there's a strong moral case that the green activists sometimes don't comprehend (Milman 2015).[22]

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[22] It should be noted that Frydenberg omitted 'coal' from the "coal, wood and biomass stoves" that the report describes the negative impacts of. This same report also says that 3.7 million people died from outdoor air pollution, such as " transport, energy, waste

The argument that mining Australian coal is a moral act linked to energy justice and

international development is prominent in the pro-coal political discourse.[23] It is an

argument that often draws, very selectively, on available data such as the WHO report

invoked by Frydenberg. A somewhat different moral case for coal is made by those who

point to the local benefits and the pragmatic concerns of energy security, energy prices

and the local and national economic impact of mining royalties and mine employment.

It is significant that this debate is being explicitly made in moral terms. Although, it is

clear that the economy is not a separate neutral ground of exchange but deeply implicated

in social life, value, and thus morality (Mauss 1974 [1950]; Polanyi 2001 [1944];

Thompson 1971; Weber 2003[1905]), this is not often explicitly recognized in the

economic and policy discourse itself. Webb Keane has identified what he calls the "moral

narrative of modernity" (2010: 79). This describes how in modernist narratives the

'moral' is largely relegated to the sphere of religion, and thus "to treat economics,

politics, or even education in moral terms too seriously exhibits a failure to be modern"

(Keane 2010: 79). Frydenberg's "moral case" is thus a counter to this modern division,

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management, and industry," and globally 40 per cent of energy production comes from
coal (Milman 2015).

[23] There are two main points behind this 'moral case' for exporting Australian coal to
India. One is at the level of energy justice. This states, as already noted, that because
many Indians still do not have access to electricity, Australia should sell them its coal in
order to grant them this access. The second, related argument, is that Australian coal is a
cleaner and more efficient form of coal than Indian coal. Therefore, if Australians refuse
to sell their coal to India it will cause emissions to go up even more since, it is argued,
India would simply burn its own dirtier coal instead. These arguments are not unique to
Frydenberg but have been repeated by numerous Australian Liberal-National politicians.
Nor are such "claims to virtue" unique to Australia, as they have also been identified in
Norway (Norgaard 2006: 360). They also underlie the thinking of the American pro-
fossil fuel advocate and climate sceptic Alex Epstein, whose book the 'Moral Case for
Fossil Fuels' I was sold by the young pro-coal lobbyist I will discuss shortly (Epstein
2014).

and the quote itself reveals that this is an intentional subversion. Frydenberg's comment that "there's a strong moral case that the green activists sometimes don't comprehend," is precisely meant to point out that *his* "moral case" is an attempt to use *their* own moralizing against them, for green activists are often seen as being excessively moralizing and impassioned. Therefore, Frydenberg's claim to a moral case for coal is an intentional attempt to use morality against them in the context of coal and its implications in international development as well as climate change.

In order to understand this shift in the 'moral case' for coal it is necessary to understand that Adani's Carmichael mine has been represented in ways that frame it directly in the context of climate change. Although there has been some concern about endangered species and the impact on the Great Barrier Reef from shipping routes, and resistance from the Wangan and Jagalingou Indigenous People, the most successful opposition has been that which links the mine to climate change. This has made the mine a national political issue, in which inner-city Melbourne parliamentary campaigns focus on stopping the Adani mine. Thus the 'moral case' for coal is constructed as a counterpoint to the moral claims made around climate change because of the potentially significant contributions to greenhouse gas emissions that the mine represents.

The proposed Carmichael coal mine is located in the Galilee basin, a geological basin which borders the Bowen basin on which Moranbah lies. The initial proposal was for five underground pits and two open-cut mines, which would produce 60 million tonnes of coal annually, although Adani has scaled this back to a proposed 25 million tonnes a year (Long 2017). It will export thermal coal, shipping it from the coast and through the Great Barrier Reef to India. Taylor and Meinshausen have calculated that the

carbon emissions from Adani's mine alone would exceed 0.5 per cent of the remaining global carbon budget (2014; see also Reside et al. 2016). This is significant in the context of Australia, a country that has signed on to the Paris Agreement, committing to prevent a temperature rise above two degrees Celsius. According to the Climate Council, this means that more than 90 per cent of Australian coal reserves cannot be burned under such carbon agreements (Steffen 2015).

Thus, it seems that the mining of the Carmichael basin is largely incompatible with Australia's commitment to lowering global emissions. However, as the coal would be burned in India, its emissions would not count towards Australia's tally. This accounting trick places responsibility on the emitting country only. However, this process of 'rendering technical' through the accounting frameworks of international climate politics has not successfully evaded the moral contests in which such frameworks are questioned (Li 2007; see also Hughes 2017). Rather, the entire coal industry is implicated in the moral contests over responsibility for climate change.

Stephen Gardiner has described climate change as a "perfect moral storm" due to its "fragmentation of agency" and "dispersion of cause and effects" in both space and time (2011: 24). Briefly this means that actions to halt climate change must take place now, but the positive consequences won't be felt until the (variously defined) future. Those nations and people most vulnerable to the effects of climate change are often those with the least power to address it. At the same time, however, concepts of responsibility and vulnerability in this context are far from clear-cut (Hughes 2013, 2017). This temporal and spatial displacement means that coordinated action is not only difficult but

also involves complicated moral and ethical questions regarding justice and its

intergenerational and international effects (Callison 2014).

Climate change thus becomes more than simply the measurable phenomenon of a

warming climate due to the greenhouse effect. Rather, it constitutes a moral and ethical

framework through which broader questions about justice are being debated. Callison

refers to climate change as "[*a*] *science-based problem with moral and ethical contours*"

(Callison 2014: 4 emphasis in original).

I will discuss further in chapter five how these global and national discourses are

utilized by environmentalists in local land-use conflicts. However, what is critical for this

chapter is that the 'moral case' for the Adani mine is a response to those who would see

this mine as directly implicated in the production of climate change, and thus as an

immoral project. More generally, criticism of the apparent immorality of the coal

industry's contribution to climate change incite a defence in similar moral terms. People

working within the coal industry frequently face such moral language and reflect it in a

bid to organize their everyday ethical positions in relation to the industry.

This is quite a different context to that analysed by Hughes' study of oil in

Trinidad and Tobago (2017). He shows how oil has historically been constructed as

"energy without conscience". He traces the local history of energy to show how this is

not inevitable; the ethical and moral debates that once framed energy that relied on slave

labour have been replaced by a relationship to oil and gas that is naturalized and amoral,

despite its contribution to anthropogenic climate change. This amoral representation

allows Trinidadians to maintain their complicity. As he writes: "Oil, in other words, is

most dangerous when it behaves ordinarily and when people treat it as *ordinary*—that is,

as neither moral nor immoral, but amoral" (Hughes 2017: 2). This amorality, he argues, is unique to oil, contrasting it to global representations of coal, which has not been constructed with the same ubiquity. I agree with this, as I have shown how coal is at the heart of a moral debate in Australia precisely through its connection to climate change. However, I differ with McDermott Hughes' position that the integration of the moralized relation to the commodity would undermine complicity.

McDermott Hughes' political position is that action to address climate change "begins with filling the moral void around energy. In that space, high emitters would express a growing sense of responsibility for climate change" (Hughes 2017: 150). However, I did not find that to be the case. As I will now show, operating in a moral landscape did not lead coal lobbyists to accept ethical responsibility. Rather people made sense of this moralized framing within their own ethical positions which draw on the ordinary, particularly their relationships with their children. The moral framework which paints the coal industry as a matter of moral debate presents a challenge to coal lobbyists' sense of their ethical selves, primarily through the ways in which it is questioned through everyday interpersonal relations (Keane 2010, 2014). Thus, their complicity does not derive from an amoral relationship to the commodity, but through their conscious moral deliberations enacted through projects which defended the industry as ways of shaping their moral reputation.

Intergenerational Moral Accusation and the Education Project

There was no individual with whom I spent more time during my fieldwork than Mark. Since he ran the local operations in Singleton, he was my immediate boss as my role as researcher began to merge with that of unpaid intern. Mark and I became close as our

relationship exceeded that of our shared workplace. Our common North American accent, and the age gap between us, saw us often mistaken for father and daughter. The ease with which we occasionally slipped into these roles ourselves reveals the intimacy we had developed, in a way that sometimes embarrassed us. I remember one day in particular as Mark dropped me off at my house after a day working together. He asked me as I was getting out of the car, "Do you have your keys?" As a grown woman, living alone, I of course had my keys, and Mark's question was clearly a slip into a habit developed with his own teenage step-daughters. He apologized when he saw me roll my eyes. Through the close relationship we developed, I felt comfortable sharing with him my critical observations of the coal industry, the lobbyists we both knew, and my concerns about climate change. He often voiced similar sentiments, and in fact many of his critical insights opened my eyes to some of the less obvious workings of the CLO. Further, when we did disagree, we would have a frank but respectful exchange of views during our long drives through the region.

It took me by surprise when one evening over dinner, Mark took a very different tone in the face of criticism coming from his teenage daughters. Occasionally, I would accompany Mark home, an hour's drive from our shared workplace, spending the night at his house before we returned together the next morning. This particular evening we had just sat down to dinner when his eldest daughter, about 17 years old, began to challenge him about his contribution to supporting coal and thus his immoral complicity with climate change. His younger daughter, 13, joined in, "Don't you feel bad about what you're doing to the environment?" Whereas Mark generally was open to critical discussion with me about the topic, when it came from his teenage step-daughters his

position hardened instantly. He argued strongly in defence of the coal industry, repeating arguments I knew from our own discussions he did not find convincing. Then he invoked a statistic: if the internet was a country, it would be the fourth largest emitter of carbon. This was a successful statistic to utilize against his teenage daughters. He continued that all those YouTube videos of cats and all those Instagram pictures that they shared and watched online were the real problem. He asked them: "Have you ever turned off your smartphone in the whole time you've owned it?" They had to admit that they hadn't. He continued: "How are you going to criticize coal when you use it all the time, are you willing to give up the internet? If not, then stop criticizing coal."

This hardening of his position stuck with me, as it seemed to derive directly from their indictment of his moral character, which he rose to defend through implicating his own daughter's technology use. The interpersonal accusation he received from his daughters which linked him directly to the coal industry, thus impugning his moral character, did not seem to lead Mark to think more critically about the industry and his own role in it. Instead it did the opposite. Whereas I could critique the industry with Mark, I always did so from within a community of complicity in which I could not associate a critique of the industry with Mark's moral character. However, coming from his daughters and particularly, when that criticism was seen to impugn his morality, he rose to the industry's defence.

Of course, this dinner time conversation could have derived from variety of other intergenerational and familial tensions. However, this anecdote was part of a pattern, where although there was a certain ambivalence with which the lobbyists tended to relate to their work, there were particular moments at which they become particularly strident in

their support of the industry, that is when they were felt their morality was being questioned. This is most clearly seen in what became the major focus of the CCC during my ten months there.

As I mentioned earlier, the CCC was somewhat stalled, as the community demands were shifting towards concerns about the end of the coal industry. This was obviously difficult for the CCC to address due to its connection to the CLO. However, a new project emerged from internal concerns which seemed to reinvigorate the CCC's work.

An education program became a focus of the CCC and received considerable support from the lobbyists and mine management involved. From what I was told, the earliest projects such as the weather monitoring were set up as a direct response to demand from people living in the region, but this came about as an internal project. A particular concern amongst members of the CCC, many of whom were also parents, was the way in which their children learned about the mining industry. It was a common lament that children would come home from school and challenge the morality of their parents' work through describing the negative things they had learned about mining or climate change at school.

There was considerable energy put into this education project designed particularly to counter these negative lessons. The goal was to reach every child in the region once in primary school and again in secondary school. Importantly, it was decided that they would take children on bus tours of the mines. This meant reaching out to every school and getting the number of students, securing the funding to transport them in buses to the mines and organizing the schedule with the mines who would host the school

trips. It is important to understand that this was logistically complex and required substantial expense and lost time by the mining companies, which are usually very hesitant to allow visitors. Going onto mine sites is a carefully managed process with tight security. With a large group of school children on a bus this was more complicated as it meant that no blasting operations could take place during the visits and a number of members of mine management would have to stop their other duties in order to escort the buses. I attended the pilot event which ended up involving three separate vehicles to handle the number of children from just one small primary school. Delaying blasting in good weather for a few hours and taking at least three managers away from their other duties was a significant disruption to operations and would normally be a difficult sell to the mines, but the mine managers were surprisingly excited about this project and agreed to make the necessary sacrifices to participate.

There was broad support for the project, but it became the pet project of a former mine engineer who now worked in mine management, Susanne, who became active in the CCC. I assisted her on the development of the program. Susanne has two daughters and she often told me about her frustration by the anti-mining messages that they brought home from school, particularly the emphasis on environmental damage that it causes. She told me about an exercise that her children's teacher used to teach the class about mining. The teacher gave the students a chocolate chip cookie and told them to mine out the chocolate chips, which they were allowed to eat. The teacher then told the students to put the cookie back together. They obviously could not do this, and thus they were taught that mining destroys beyond repair.

This was particularly frustrating to Susanne; she certainly did not conceive of her work as destructive. Her image of mining was that it was fundamentally constructive and was a necessary and beneficial service that provided much of the comforts of modern life. Once in an early meeting about the program between Mark, herself, and I, she showed us a presentation about how she envisioned the program and the main message she wanted to teach children. To make her point she played us a video. The dramatic video portrayed what life would be like without mining. In the video everything started to fall apart. Buildings collapsed in an apocalyptic scene, and people held onto each other in fear as metals dissolved and the structures of the city collapsed around them. As her choice of video indicated, Susanne did not see her work as destructive, and thus it angered her that her children learned that her work was bad. She was motivated to get involved in countering this message as a personal and ethically motivated project. However, after the meeting finished and Susanne had left, Mark asked me the rhetorical question: "Can you imagine what Sally [one of the two environmentalists who actively attended the CCC meetings] would say if she thought we might show that to kids?" He laughed before continuing: "We may have to tone Susanne down a bit."

The image of mining as productive rather than destructive was the main message that was pushed in these school tours. The guides, including myself, were given a set of questions to keep the kids engaged in the educational mission of the tours. The drive to the minesite was meant to be filled with brainstorming the different things that the students used everyday that were made from mined materials. Guides had a list to help students realize that "most things we use today come from some sort of extractive industry." The list included the obvious items like jewelry, transport infrastructure, and

energy, but it also included everyday items like body and hair care products with petrochemicals in them, the zippers or buttons on clothes made from metals and plastics, even food required fertilizers that contained the by-products of mining like phosphate and sulphur.

The desire to paint mining as fundamentally constructive was an attempt to counter the negative environmental reputation of the industry, which also implicated these miners and lobbyists individually. Susanne, like many others, recognized the moral critique of mining as a personal indictment, which takes a particular strength when it comes from her children. Her reaction to this form of critique of her moral and ethical self is refracted in a way that encourages her active work in support of the mining industry. Rather than accepting the moral frame through which her work with the mining industry was questioned, she chose to actively pursue a project that reconciled her moral sense of self with the representations of others. The self-fashioning exercise of ethics that coal lobbyists such as Susanne engaged in was about crafting themselves into the kind of people that they wanted to be, but this was simultaneously the kind of person that would be perceived by others as morally righteous, thus leading directly into a defence of the coal industry.

Her active involvement in the education program was just the start. She also became a national spokesperson for the mining industry appearing in a television commercial that aired repeatedly on national television. The commercial was part of a broader campaign that the Australian Minerals' Council—the national lobby—had recently launched entitled "Australian Coal: Making the Future Possible". The commercial begins with Susanne putting her two daughters onto the school bus with their

matching rucksacks. She then introduces herself to the camera and describes her successful career in mining. The commercial follows her to Japan where she visits a low-emissions power plant there and contemplates the busy streets of Tokyo and its energy needs. She sums up the commercial's message which mimics the 'moral case for coal' described above: "Globally there are billions of people that are going to need a lot more power but at the same time reducing emissions. That's a big challenge that Australian coal can be part of. I'd like to be part of that."

As I spent time with Susanne assisting in the organization of the project, I learned that her interest in the role of education was also related to a desire to share the benefits that the mining industry had given her. As a mine engineer herself, Susanne lamented the decreasing popularity of mine engineering degrees at Australian universities. The number of young people enrolling in these degrees has declined significantly in recent years. She saw this not only as a potential problem for the industry, but also worried about the young people, and particularly young women, who are missing out on the opportunities and benefits that a career in mining gave her (Boyd 2016).

Similarly, in my time with the CLO, I met a university student, Hamish, who had initiated a Youth for Mining group. He explained that he started the effort because of the backlash that he was facing from his fellow university students who were adamantly anti-coal and challenged why he would study mine engineering and want to work for such a damaging industry. In fact, when I met him he was selling copies of the book by Alex Epstein entitled the *Moral Case for Fossil Fuels*, extolling the book's message which closely matches that described above in relation to the Adani mine (Epstein 2014). The negative moral portrayals of the industry, Hamish told me, meant that his fellow

university students would accuse him of being greedy and selfish when they found out that he wanted to work in the mining industry. He told me, "As soon as I thought about it as a career, I just realized that mining was perfect for me. I love math, so I thought I'd be a good engineer, but I also love getting my hands dirty." He also said that "We need mining for almost everything, so it's actually really important." Mining felt like the right industry for his particular skills and interests and would enable him to make a positive contribution to the world. He thought that if he could help people—especially young people—understand the importance of mining they would see the benefits the industry provided. Hamish reacted to the moralized framing of the mining industry and the accusations of his own immorality that this inspired from his peers by becoming a young lobbyist and activist for the industry.

These personal attachments, in which Susanne and Hamish felt personally implicated in the moral rightness or wrongness of the coal industry, inspired them to take part in explicit projects of ethical self-making. Their activism in support of the industry grew as they became personally invested in defending it. Although Susanne is employed by the mining industry these educational programs are above and beyond this official employment. Therefore, to say that she has simply been co-opted by the industry would be a misrepresentation. Further, Susanne eventually became a public spokesperson for arguments similar to those underlying the 'moral case for coal' as she appeared in a national commercial. Hamish reacted to the negative accusations from his classmates, not by questioning the morality of mining, but by actively starting a student group which spread the positive moral case for the coal industry.

These fears of being unfairly accused of immorality reflect the importance of social relations for the exercise of ethics. Charles Stafford (2013) draws on the work of psychologists to describe the forms that moral evaluation and ethical judgement take. When judging others, people tend to engage in dispositional attribution, that is that a person's bad actions are symptomatic of them being a 'bad person'. Whereas when judging their own bad actions, they use situational attribution that takes into account the circumstances that led their usually good character to do something bad. Stafford argues that this is unlikely to be a universally true dichotomy, but nonetheless which form of attribution is used and in which circumstances is a fruitful way for thinking about the enactment of ordinary ethics (Stafford 2013:102). The questioning that came from the friends and families of coal lobbyists served as a form of dispositional attribution. These moments were felt as personal attacks, in which not only were the circumstances of the coal industry challenged but the lobbyist's character as its defender was denigrated. The lobbyists related to this negative moral framing of the coal industry as an indictment of their own morality and thus their defence of themselves also required a defence of the industry for which they worked. Thus, these negative dispositional attributions incited forms of ethical self-fashioning, as they took more active roles in their lobbying efforts, often above and beyond those required by their employment. As I have shown, despite often being rather ambivalent, they solidified in their defences in these moments of moral accusation.

Laidlaw argues, drawing on Foucault, that a theory of ethics must also operate with a theory of freedom (Laidlaw 2002, 2013). Ethics requires conscientious action even if such freedom is within constraints. This emphasis is not inconsistent with Foucault's

earlier writings on power. For Foucault, power is the force of compelling one to act in a certain way, but this requires freedom for the power is not merely exercised over an object but on the action of the subject. This then leads Foucault to define ethics as "the considered form that freedom takes when it is informed by reflection" (1997: 284 quoted in Laidlaw 2013: 104). Ethics, then, is the conscious and reflected upon actions that subjects undertake—or their techniques of the self—within the possibilities offered by prevailing power structures. In line with this view of power, I am not arguing that the ethical reflections that coal lobbyists make are somehow devoid of the forms of coercion that are structured by power, but I am saying that their conscientious reflection is an exercise of ethical self-fashioning even within these constraints. Further, their ethical self-fashioning feeds back into the power structures, thus producing their complicity and reinforcing these conditions.

Conclusion

The moral framework in which the coal industry is debated has led those who defend it to also frame their work in such moral and ethical terms. However, rather than the moralized landscape encouraging them to question their work, they craft alternative moral framings. This both derives from and feeds into national discourses, as shown in Susanne's eventually becoming a national spokesperson for the industry. Complicity is not just something that insufficiently ethical people engage in. It is something that is made and reproduced precisely through the everyday and ordinary operation of ethics (Steinmüller 2010, 2013). Rather than the moralized discourses around coal and climate change and the integration of these into everyday lives causing lobbyists to renounce

their work, it actually serves to heighten it as they frame themselves as ethical actors to counter the negative accusations of others.

To argue that pro-coal lobbyists are acting ethically I am not myself endorsing their position. Instead, I am saying that they are evaluative. Their complicity with the coal industry is crafted through a conscience ethics that draws from their ordinary and everyday experiences. The ordinary is where ethical decisions take place and moral frameworks are made meaningful, and thus a close attention to these elements of the ordinary is crucial for understanding the working of power and the active production of complicity.

However, I have also shown how my own complicity enabled me to access the ambiguities that the lobbyists maintain in relation to their work. Complicity is rapport's dark shadow, in that it is a morally ambiguous condition foundational to the shared intimacies of fieldwork (Marcus 1997). However, when this complicity is with those deemed morally questionable, the co-implication in their work reveals the shared intimacies and understandings that create a safe space for critique in gestures of irony, joking asides, and the sharing of sarcastic videos (Steinmüller 2010, 2013).

The borders between lived ambiguities and official discourses is closely policed by lobbyists. This is of course partially a result of the demands of their formal employment, but as I have shown, the zeal with which they defend the industry is radically different when it is merely a formal part of their job (passively attending the community show) and when it is inspired by a morally-inflected defence of their character against the accusations of their family (the education program) or accusations of untrustworthiness (the study results).

The larger political project of this thesis is to take seriously the multiple sides of the debate over the future of Australian coal and to navigate the complexity of lives entangled in the industry. It has been easier to empathize with the working-class miners. They are less well positioned to find alternative sources of employment, and thus a shrinking coal industry represents the loss of livelihoods and valued communities. It may be more difficult to garner similar empathy for pro-coal lobbyists, but this does not decrease the importance of understanding their ethical positions. Understanding the role of the everyday and intergenerational forms through which they relate to moral discourses can help illuminate the crafting of alternative moral and ethical frameworks that receive better reception within this population. The back-and-forth volleying of moral accusations may in fact undermine the alliance building necessary to address the climate crisis and Australia's double bind. Taken alongside the previous chapter, I have shown that despite the understandable panic that has arisen alongside Anthropocene awareness, the appeal to morality as the basis for organizing a politics of the Anthropocene may serve to undermine it. Moral accusation does not enable the intersectional and structural critiques necessary to address the ways in which we (mostly) are all complicit, even if unevenly so. Weighing moral responsibility—although motivated by concerns for justice—is more likely to reinforce already existing inequalities. This speaks to what has motivated this thesis throughout, that is, the political divisiveness through which debates on the future of Australian coal undermine the shared sense of precarity in the Anthropocene.

I will now describe a different form through which climate change was brought into the political discourse and decision-making process in the Upper Hunter Valley.

Here it was not the particular moral claims that failed to resonate, but the scale at which climate change claims must be made. I will show how the scaling-up of climate change concerns is largely incompatible with the formal planning process of the state bureaucracy.

CHAPTER FIVE: Mine, Vines and Equines: The Scale-Making of Land Use Conflicts in the Upper Hunter Valley

"It's hard to be too morally indignant about the coal industry around here," Frank, a middle-aged man who organizes tours of the mines for the odd tourist, explained to me. He continued, "we've basically got the coal industry versus the gambling industry versus the alcohol industry." This former teacher has a small office in a mostly empty office suite, cluttered with mine memorabilia, including pieces of coal, hard hats, high visibility vests, and models of mine machinery. The centrepiece of the room is a large map that shows the location of the mines on the landscape of the Upper Hunter Valley (see figure 5.1 overleaf). Frank directs me over to the map, pointing out where we are, in Singleton, New South Wales. He points out a few other landmarks: the second major town of Muswellbrook to the northwest, and the smaller Bulga to the southwest, and Scone to the northeast. When he reaches the town of Jerry's Plains, the site of the proposed Drayton South coal mine expansion, he asks me if I've heard about it. This was my first day in this new fieldsite, so although I'd picked up bits in the media, I didn't know much then. He began to explain the basic situation to me.

An open-cut coal mine, called Drayton and run by Anglo American, had recently requested an extension of its mining plan. The original mine was nearing the end of its life, as recoverable coal had been running low, so Anglo American was hoping to develop an adjacent site to the south and take advantage of the existing infrastructure. The new conglomerated mine would be called Drayton South. He explained how this had divided the community, as the proposed mine was near to two major thoroughbred studs and a small winery. The New South Wales Department of

This map, Figure 5.1 Map of Drayton Mine Location in Upper Hunter Valley (Brereton and Forbes 2004), has been removed as the copyright is owned by another organisation. Figure 5.1 Map of Drayton Mine Location in Upper Hunter Valley (Brereton and Forbes 2004)

Planning had twice approved the mine, but the plans had to go through a secondary process and be approved by a body called the Planning Assessment Commission (PAC) who received submissions and held a public hearing to determine whether the project was in the 'public interest' (New South Wales Environment Protection Authority 1979: act79c(1)(e)). Three sets of public hearings had already been held before the PAC, but the issue still wasn't fully settled, as Anglo American had recently submitted a revised plan which was due for a fourth public hearing. The Hunter Valley is not only a coal region. Unlike Moranbah, the Upper Hunter Valley has a number of large rural industries mixed in with its numerous coal mines in a delicate, and at times quite strained, balance. "Mines, vines, and equines,"[24] is an oft repeated phrase to describe the diverse economy of the region and is meant to celebrate the coexistence of the coal mining industry with the wine and horse breeding industries. Frank's framing of these industries as 'coal, alcohol and gambling' was a striking rewrite of the tagline. His twisting of the celebrated imagery of the grape vines in the wineries dotting the landscape into the 'alcohol industry,' and the regal thoroughbred horse breeding industry into the 'gambling industry,' made a rather acute moral claim about the underlying sinfulness of even the more aesthetically pleasing and prized agricultural heritage of the region. It was a purposeful attempt not to argue *for* the morality of the coal industry, but to posit the moral ambiguity of its competitors.

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[24] While there are also a number of small dairies in the region, adding the rhyming, 'bovines' to the list, this industry has shrunk significantly since economic reforms in the 1990s and is now limited to a few small dairies and not a major source of land-use conflicts (McManus and Connor 2013).

The Hunter Valley is often divided into the Upper and Lower Hunter, as a way of marking the somewhat distinct economies of the area, although there is much overlap. The Upper Hunter is more generally associated with the coal and horse industry, whereas the Lower Hunter is associated with wineries and includes the coastal city of Newcastle. The Hunter Valley wineries are renowned for the quality of their Semillons, and the industry relies heavily on its close proximity to Sydney. It is possible to visit on a day tour which is popular with domestic and international tourists, and it serves as a weekend escape for city dwellers. The prevalence of Mandarin signage at the wineries serve as evidence of the region's increasing popularity with Chinese visitors. Although Frank does offer tours of the mines, he does little business. Most tourists come to the Hunter Valley for its wineries.

The Hunter Valley is thus largely known amongst outsiders for its wines, rather than its mines. Most tourists do not know that one of the world's busiest export coal chains runs through it. The Upper Hunter Valley is also one of the world's three premier thoroughbred breeding centres of excellence, alongside Lexington, Kentucky, in the US and Newmarket in the UK. The existence of these industries means that, although much of the region's recent growth has come from the coal mining industry, it is not the only powerful economic force, and as such, the possibility of coexistence between industries is a matter of debate.

When introducing myself in Singleton and as a researcher on the coal industry, most people automatically told me how they felt about coal mining: something along the lines of, "I'm not against coal, but…" followed by a worry about the cumulative impacts of living in close proximity to so many mines and the environmental or health impacts.

Alternatively, they praised the industry with a strong endorsement of coal's contribution to the growth of the area, and its role providing employment and support for community sport and events. Divergent perspectives on the coal industry's trade-offs, as well as its long-term viability, created dividing lines along which broader community political and social disagreements took shape.

As discussed in the thesis introduction and previous chapter, coal is mapped onto larger political questions and is often the topic of national debate in the context of energy security and climate change. However, it is also entwined in more localized concerns. It is deeply embedded in local livelihoods, both through direct and indirect employment and because of the health and environmental impacts on residents. The affective attachments to the labour of mining and its symbolic importance in the region's history also contrast markedly with similarly strong attachments to a sense of rurality and associated agricultural industries (Connor 2016b; Sherval et al. 2018). These agricultural industries are less divisive than coal mining. The tour organizer I quoted above who referenced the alcohol and gambling industry, Frank, was making a clever joke rather than voicing a popular critique. However, within the context of a direct conflict with the mines, the moral problems posed by these industries become salient, and the dividing lines are revealed as people make and defend their claims through divergent conceptions of the region's past and future.

This public weighing of claims took place in the context of the planning approval process for the Drayton South Mine Expansion, most performatively in the Planning Assessment Commission (PAC) hearings that were part of this process. Public hearings were held over two days in the town of Muswellbrook, the nearest regional centre to the

proposed mine. These meetings make up the bulk of the ethnography in this chapter and will be analysed alongside the PAC's final determination document. The chapter looks particularly at how the planning process defines the scale to which claims can be legitimately made and incorporated, thus shaping what issues are compatible with planning regimes and state projects. Of particular importance was the way in which the regional scale-setting limited the ability of local environmentalists to connect the struggle over an individual mine to global climate change.

Planning has become a ubiquitous form taken by state processes in the modern world. It has been shaped by neoliberal developments (James 2011) and austerity (Bear 2011) and remains a constant presence in statecraft from international bodies to the local council (Abram 2014; Abram and Weszkalnys 2011; Baxstrom 2011; Lund 2011; Weszkalnys 2010). Planning is deeply rooted in modern rationality, which emphasizes that development and progress can be achieved through the proper policy prescriptions, thus it is deeply connected to state governmentality (Scott 1999). Further, planning, particularly as it is applied to land-use through regional planning, represents the point at which the progressive narratives of modernity interact with emplaced nature, revealing the modernist myths of control that are foundational to Anthropocenic logics. Arturo Escobar goes so far as to claim that "[p]erhaps no other concept has been so insidious, no other idea gone so unchallenged" (1992: 132) as planning, for it is foundational to processes of social control, from the rise of Western modernity to contemporary third-world development programs. However, as Abram has argued, although planning is inherently modern with its attendant progressive and universalizing tendencies, "close attention to planning practices indicates that such temporalities are doubted, contested,

and mediated" (2014: 129). For this reason, Abram and Weszkalnys argue that planning is an 'elusive promise' as it is inherently partial, leaving numerous gaps between the conceptual plan and the actually existing world it attempts to describe and order (2011: 14). Just as this thesis attempts to untangle the conflicting ways in which the modernist ontologies of the Anthropocene are experienced in social life without assuming their universal and total dominance, so too must ethnographies of planning look at the specific unfolding of planning practices and the gaps and inconsistencies which persist despite their outdated modernist foundations.

The essential inconsistency with the hegemonic conception of planning that the planning process around Drayton South revealed was a peculiar setting of scale. It led to quite specific scale-making claims as local imaginations rubbed against global connections (Tsing 2005). This chapter uses the public hearing and planning process about the proposed expansion of a coal mine to reveal how current tensions between different scalar imaginations are foundational to the political disagreements over resource projects. Rather than assuming the pre-existence of nested scales from local to global, it conceptualizes scales as imagined and actively produced through encounters and frictions (Tsing 2005). This is particularly related to precarity within Anthropocenic conditions as appeals to the global, linked both to climate change and international corporations, evoke feelings of insecurity over futures made outside of an imagined localities' control.

This perspective is partially inspired by Thomas Eriksen's (2016; 2018a; 2018b) analysis of the industrial boomtown of Gladstone, Queensland. His research here led him to focus on the clashing of scales as a fundamental tension in local resource conflicts as well as broader disagreements facing the contemporary world. A fundamental finding for

him is that large-scale interests overpower smaller-scale concerns. Although inspired by this focus on scale, my findings in the context of the mining bust, seem to reverse the dynamics he observes, as the benefits of global connections are being questioned through increased awareness of precarity.

As much as precarity is directly linked to the loss of stable Fordist employment, it is also more broadly "an acknowledgement of dependency, needs, exposure, and vulnerability" (Puar 2012: 163). In the precarious Anthropocene, the global is increasingly imagined as a source of instability and contingency, particularly as it raises awareness of inherent connectivity and dependency on others: nations, markets, and the earthly atmosphere. In this context, a retreat to the imagined local reveals a nostalgic longing for stability rooted in historic conceptions of the region. Such conceptualization of the local and global are imagined, as all scales must be made through particular interactions in which they become meaningful entities or ideas. As Narotzky and Besnier argue, "the ways in which people get hold of their future through political mobilization in the present is structurally tied to the limits of uncertainty that are materially produced by economic and political structures, institutions, and agents" (2014: S11).

The planning process is such a particular conjuncture in which these limits of uncertainty are translated into political conflict and are made meaningful. In this chapter, I will first describe in more detail the context of the Drayton South conflict, and from there move on to describe the public hearing in the planning approval process. I show how the specific scale-setting of the PAC, at the level of the regional economy, privileged economic arguments but also enabled the slipping in of affective concerns. This shows how the separation of the economy from other spheres of social life and the resultant

commodification and alienation is not a complete project, despite the need to articulate it within the language of the plan. However, the same appeal to locality that enabled affective attachments to regional understandings of belonging, disabled claims that linked an individual coal mine to global climate change. Despite the PAC ultimately ruling against the mine expansion, the PAC's decision left out attempts by environmentalist to scale up their concerns. Here, the 'global' again becomes an imagination that is deemed illegitimate in the context of the planning process.

This reveals the tension between localism and Anthropocenic awareness. The precariousness of global connection brings a retreat to the local, beneficial in re-incorporating community and social concerns into economic logics, but this localism also excludes the kind of coordinated action or scalability (Tsing 2012) required to address planetary crises like anthropogenic climate change.

Drayton South and the Planning Assessment Commission's Scale-Making

With the initial development application submitted in May 2015, there had already been a long struggle over the future of Drayton South before I arrived for fieldwork in August 2016. Reminders of the struggle remained. One day while writing my fieldnotes I realized my pen was inscribed with the slogan "I Support Drayton South" (I am still unsure of where I had picked it up). Driving down the highway to an interview I would occasionally spot a 'Save Drayton South' campaign sign fading in the sun or see a neon-orange cap with the same phrasing shading a man's face as he wandered around the local community show. At the height of the contest in late 2015, I was told, the issue caused a palpable division in the community. The fact that the issue was still not resolved, despite

numerous hearings and previous determinations, frustrated many who told me that the ongoing process delayed "community healing".

The New South Wales Planning Department had recently undergone a number of reforms, one of which was the 2008 introduction of the Planning Assessment Commission (PAC). The NSW Planning Assessment Commission is an independent body of experts who review major development projects if they have been approved by the Department of Planning and Environment but have received more than 25 objections, or if the development is objected to by the local council in which the project is located, or if there is potential for corruption, for example if the proponent of the project has made substantial political donations. The goal of the PAC is to provide an independent review of department recommendations and ultimately to determine whether or not the project should go forward in the public interest. The proposal will then go through 'review and determination', which means that up to two public hearings are held for each proposal. In the case of Drayton South, the project had already resulted in three public hearings by the time I arrived in Singleton. When their proposal had been rejected twice by the previous PAC, Anglo American submitted a revised proposal for a smaller mine. This meant that the proposal went through the 'review and determination' stage a second time. Therefore, by the time I was sitting in the PAC public hearing, it was the fourth time that many people had to make submissions to and speak at the meetings. Fed up with the process, many felt that the PAC process was a way for the planning minister to avoid making politically unpopular decisions in disputed electorates (see also Connor 2016b).

The Drayton South project is Anglo American's plan to establish two new open-cut pits near its current operations of the Drayton mine which was running out of coal.

The two new pits would have a disturbance area of 1,477.5 ha with a 15-year mine life, hoping to recover 74.9 million tonnes of coal. The mine would operate 24 hours a day, 7 days a week. The proposal also included the incorporation of this new mine plan for Drayton South into the previous mine plan for the Drayton mine, their already operating adjacent mine thus incorporating the old mine into the new expansion as a single mine for regulatory purposes (New South Wales Planning Assessment Commision 2017).

During previous hearings, Anglo American threatened that if they didn't receive approval for Drayton South to expand their operations they would have to close the existing Drayton mine and lay off the employees there. After receiving the third rejection from the PAC, they did just that, dismissing the majority of their workforce and leaving only a few employees to work on rehabilitation projects.

Anglo American had also recently announced that they were getting out of the Australian coal business. In an announcement in February 2016, the CEO Mark Cutifani announced that they would be selling all of their Australian coal assets, describing them as "non-core" after posting a $US 5.6 billion loss (Saunders 2016). Thus, by the time the fourth PAC hearing was held, all those who were previously working at Drayton had already been laid off. Therefore, the company's appeals for the PAC to approve the Drayton South mine expansion, as many critically noted, was primarily about having a more valuable asset to on-sell to another mining company, and with it, Anglo American's rehabilitation obligations on the existing mine.[25] A new owner would likely go ahead

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[25] This has in fact happened, even though the PAC ruled against the open-cut mine expansion. The Drayton assets were subsequently purchased by Australian company Malabar Coal, for AU$86 million in December 2017. They will develop an underground mine in the area, which they argue will cause less disturbance to the surrounding industries (Caruana 2017). Had the open-cut expansion of Drayton South been approved, Anglo American would likely have received a substantially higher price for the assets.

with developing the new mine, even if it had seemed uncommercial for Anglo American. Thus, the outcome of the PAC hearing was still critical to whether or not the mine expansion would eventually proceed.

Importantly, this particular project was located close to two large and prestigious thoroughbred stud farms, Coolmore and Godolphin. Coolmore is a business which offers services for fees to clients, primarily the covering (insemination) services of renowned racing stallions to mare owners who hope to produce future racing or breeding offspring, with covering fees as high as AU$250,000. Godolphin, owned by Sheik Mohammed bin Rashid al Maktoum, of the Dubai Royal Family, is primarily for the breeding and improvement of Godolphin's own racing operations. With more than AU$500 million spent each year on breeding in the Hunter Valley, these two studs are paid about AU$100 million annually for their services (New South Wales Planning Assessment Commision 2017).

They are major global players, but also are of critical importance in the upholding of what has been designated as the equine Critical Industry Cluster by the Upper Hunter Strategic Regional Land Use Plan. This includes not only the major studs mentioned above, but also the related facilities and services, including mare boarding, veterinary services, feed suppliers, farriery, etc. This plan identifies that the entire equine industry contributes AU$565 million in the Hunter region alone, and AU$2.6 billion to the NSW economy annually, and it employs around 5,000 people in the region (New South Wales Department of Planning and Infrastructure 2012). The thoroughbred industry thus makes substantial contributions to the local state and national economy, although not at the scale of the mining industry. The Drayton South project alone was estimated to provide 500

jobs, and indirectly employ 984 people, over its 15-year lifespan. While this is significant itself, the real benefit comes through the royalties and taxes, which the project proponents estimate at AU$233 million in royalties to the state, and AU$93 million in taxes to the national government (New South Wales Planning Assessment Commision 2017: 8).

The PAC ultimately –for the fourth time—ruled against the mine and in favour of the thoroughbred horse studs. They based this decision on the basis of the economic reach of the project, primarily through the sustainability of the equine industry in contrast to the short life-span of the proposed mine, yet even this seemingly simple calculus involves complex moral claims and clashing temporal, spatial, and conceptual scales.

The PAC's mandate is to decide in the best interests of the locality as relating to the project's environmental, economic, and social impacts. However, in the PAC's determination, it decided to define the locality as the 'economic reach' of the project. This meant they were privileging the economic aspect, or perhaps more accurately, subsuming the social and environmental aspects into the category of the economic. A direct quote from the determination highlights this reductive exercise, which forced claims into an economic calculus:

> In accordance with s79C(1)(b) of the EP&A Act, the commission has considered the likely impacts of the Project including the environmental, economic and social impacts in the locality. The Commission has defined what it considers to be the locality of the Project. The Commission considers that the locality is most readily defined as being the economic reach of the Project which is most relevantly contained by the extent of employment and services expenditure and subsequently this reach is largely contained within the broader geographical region known as the Hunter Valley (New South Wales Planning Assessment Commision 2017: 9).

This of course had an impact on the relevance of claims to belonging to this locality for the PAC's decision-making process, and specifically limits the geographic and conceptual scale at which arguments could be considered relevant. Defining the locality through 'economic reach' would seem to make it global in character, given the worldwide reach of both the coal export industry and the racing industry (with a major opponent of the mine being the Dubai monarchy). However, the PAC constrained the global economic reach to its regional limits of the Hunter Valley, and even further, reduced the meaning of economic reach to "employment and service expenditure." As Abram and Weszkalnys argue, "plans may be seen to perform a particular kind of work, which frequently seems to be less about a specific content than the kind of conceptual orders that they lay out" (2011: 14). In the process, they often reduce complexity and thus limit the way in which claims to futures can be made.

This scale-setting is part of a broader privileging of the economic and may at first seem to represent the disembedding of the economy from social life characteristic of neoliberalism, which works "to translate political issues into economic or managerial ones, thereby avoiding debate about fundamental values, social justice and conditions for long-term human well-being" (Eriksen 2016: 131). However, although incorporating the social and environmental into the economic, the limiting of the economy to the *region* set the scale at a local and emplaced level and resultantly more localized social and environmental concerns were reincorporated back into the PAC's considerations as the two main industries both claimed *regional* importance. The scale-setting as the *regional* economy required all parties to claim a localness based in a particular conception of the

region's history and future, even though these claims to localness were translated into the planning regime through economic language.

The region is both a geographic delineation, as in the physical bounds of a valley, but it is also conceptual in that it includes particular identifications with a historic conception of the Hunter Valley, thus drawing on affective connections and historical narratives. This resonates strikingly with a trend Katherine Gibson (2001) identified in a different coal region in Australia, the LaTrobe Valley of Victoria. She describes the social embeddedness of the conception of the region as opposed to the economized logics of neoliberal planning regimes. She traces the history of planning in the LaTrobe Valley and shows how the region as an object for planning arose in post-WWII Australia to create a vision of the economy which included social and community concerns. The neoliberal-informed planning that followed led to individualism and competition between the towns in the area. Residents began to incorporate this vision of the disembedded economy in their own subjectivities. They formed an "attachment to the truthfulness of numbers and submission to the Economy's right to direct action" (Gibson 2001: 644). However, Gibson argues this economization can potentially be countered by an emphasis on the region to re-embed the economy (657). Even as scales such as the region draw on specific geographic markers, Gibson's analysis show how scales are more importantly conceptual, shaping the way in which people relate to places. As Tsing shows:

> Place making is always a cultural as well as a political-economic activity. It involves assumptions about the nature of those subjects authorized to participate in the process and the kinds of claims they can reasonably put forth about their position in national, regional, and world classifications and hierarchies of places. The specificities of these subjects and claims contradict and misstate those of other place makers, even as they may form overlaps and links imaged as 'flows.' The channel-making activity of

circulation, then, is always a contested and tentative formation of scales and

landscapes (Tsing 2000: 338).

Thomas Eriksen similarly emphasises how attention to scales is important for

understanding the contemporary moment, particularly in Australian land-use conflicts.

His insights draw on research conducted in the Australian industrial town of Gladstone,

Queensland, in conversation with a larger group of researchers around the world. The

work is united by a shared conception of the contemporary world as "overheated," which

directly speaks to climate change, but also includes the increased speed of globalisation

and interconnectedness which is often in tension with the local. The clash of scales is

fundamental to the frictions and tensions of the overheated world. He locates these

particularly in contests between industry and environmentalism, such as "when a local

community is being overrun by large-scale interests, when short-term concerns take

precedence over long-term survival" (Eriksen 2016: 131). This clearly has resonances

with the Hunter Valley, however Eriksen's research was conducted during the mining

boom, and thus his work emphasizes the conditions of the larger and more powerful

industrial interests overpowering local environmental concerns, and the short-term but

momentarily high wealth of the mining industry trumping the smaller but more

sustainable economic activities of rural industries (Eriksen 2018: 212). Although he does

identify a common trend, by not sufficiently interrogating the way in which scales are

constructed, his analysis leads to a unidirectional view that causes him to conclude that

"[d]ecisions taken on a large scale affect small-scale life-worlds without in turn being

affected by them" (2018: 224). I did not find such uni-directionality within the specific

context of the planning process over Drayton South, or even more broadly in my research

with the coal mining industry as they did respond to community concerns. Our research is

of course in different locations, and the agencies studied are not equivalent, but even more importantly is the difference in temporal context that only a few years between our research makes.

Between 2014 and 2016, the mining bust revealed the instability of reliance on continued global economic growth, and regionalism has slowly re-emerged as a critical actor. Even though the planning conflict over Drayton South revolved around two large and wealthy industries with numerous global linkages, they both made particular appeals to their localness and claimed their critical role within a regional identity that is economic but also inherently historic, place-based, and affective.[26]

The two main claimants—the thoroughbred horse breeders, Godolphin and Coolmore and the international mining company Anglo American—both (along with their supporters) claimed their own localness and highlighted their opponent's globalness, which was negatively linked to instability and vulnerabilities to forces outside of the region's control.[27] Thus although scale in terms of ranked complexity may exist in some material sense of the particular flows of finance and decision making, what is crucial to understanding the local land-use conflicts is not the clashing of scales as some pre-existing entity of the small or large/local or global (Eriksen 2018a), but the way in which scale-setting and appeals to particular scales are imagined, performed and enacted by actors and institutions. I will now describe Anglo American's appeal to regional

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[26] By way of illustration, in May 2017, BHP-Billiton, dropped the 'Billiton' from its name which it had picked up when it merged with the South African firm in 2001. A massive rebranding effort has attempted to reassert BHP's original founding in Australia and to de-emphasize its multinational status (Ryan 2017).

[27] The wine industry was less active in their opposition, largely due to a fear of being associated with mining for reputational reasons, to be discussed shortly.

belonging, and the particular way in which this claim is contested by the horse breeding industry, before proceeding to discuss the horse breeding industry's claims to the same.

Community Sponsorship and History: Anglo American's claim to the region

The PAC hearings were held over two days, on the 16th and 17th of November 2016, in the town of Muswellbrook, NSW. Mark picked me up at the office in Singleton, and we drove together to the hearings. We arrived at the hearings in Muswellbrook to find a packed room of a few hundred spectators and participants. It was standing room only. There were a number of journalists in the room with their large cameras around their necks. I came to learn that these numerous journalists were primarily there for the same reason that Mark wanted to attend. Nathan Tinkler, the infamous boganaire described in chapter three, was scheduled to speak. Most of the journalists left after he spoke and they had captured his image. Mark similarly got bored soon after and decided to leave.

The audience that remained after the spectacle of the boganaire had passed were mostly wearing khaki trousers and polo shirts emblazoned with Coolmore or Emirates (for Godolphin) logos. This revealed that the majority of the audience represented the interests of the thoroughbred horse breeders. The rows of seats for the audience faced a podium with a projection screen and a long folding table. Seated behind were the three members of the Planning Assessment Commission and a secretary who kept time and notes. The format of the meeting followed a pre-set schedule of speakers that was printed and placed on each chair. Individuals were given five minutes to speak, whereas those representing groups were given 15 minutes. The speakers presented their case at the podium, sometimes using PowerPoint. There was little interaction between the speakers and the PAC members who largely sat quietly behind the table, taking notes. The

secretary, with a few exceptions, strictly enforced time limits. It was a relatively formal affair, and although the speakers often spoke very passionately, the audience was generally silent. Nathan Tinkler's appearance was the main exception to the usual decorum, as the sound of constant camera flashes brought a frenzied disorder to the space.

The first speaker, a representative from Anglo American, faced a room that was largely in opposition, something that was clear through the uniformed division of the room. The neon collared work shirts—referred to as hi-vis—required on the mine site but also commonly worn by miners in everyday life, were largely absent from the room. The politics of clothing have a longer history in the dispute. The hi-vis work shirt became a main symbol of support during previous hearings as they were hung on a fence along the major highway to represent the workers of the currently operating Drayton mine, whose jobs were threatened if the expansion was not approved. The representatives of Anglo American mentioned these workers, the 196 employees who had been fired last month when the Drayton mine closed down. One such representative, speaking to a common critique of the international mining company, said, "Drayton is part of the community," pointing to the apprenticeships and skills training provided by the mine and highlighting that 90 per cent of its employees live in the Upper Hunter region.

Figure 5.2 'Hi-vis' shirts hung in support of the Drayton South Mine expansion (Carr 2017)

 They also emphasised the financial support to local sport teams and community groups, which were part of the industry's general embrace of Corporate Social Responsibility measures to 'give back' to the community. These programs not only create general goodwill in the community but serve to fill gaps in the provision of social programs within the context of the neoliberal rollback of the state and increasingly create relationships of dependence on the mine (Frynas 2005; Gardner 2012).

The role of the mining industry as the provider of employment and financial support in regional areas is continually brought to the fore. It is a crucial discourse of the industry that is also repeated by proponents of the mine (cf. McManus and Connor 2013). At the PAC hearing, a pro-mine community member said: "Mining in the surrounds of Muswellbrook has supported the town and helped it grow into the town it is today. The Muswellbrook indoor swimming pool and gym is a great example of this."

Another pro-mine advocate at the hearing took this further to emphasise the critical role of mining in regional and national history: "Mining has been a part of the Muswellbrook community for over 100 years…Mining has seen our community and Australia survive the GFC and the current mining downturn. Without strong mining business, Australia would not have come through this time as strong as we have." The appeal to mining's historic presence is linked to the particular regional identification, which links the more contemporary open-cut mines in the Upper Hunter to the earliest convict coal mines of the Lower Hunter, in the area around Newcastle. As I described in the introduction, Australia's first international export was a shipment of coal that had been collected from the Lower Hunter in the first years of the colony. Later in the early years of the colony, prisoners mined coal under harsh conditions in the area's underground mines. Thus, the claim to "over 100 years" of history of mining as a marker of the industry's local connections is a particular claim to the region's role in national historical narratives, for these early underground mines were quite distinct from the open-cut mines that came to the Upper Hunter in the 1970s. The specific scale setting of the 'region' of the entire Hunter Valley, however, allows such a claim to resonate with the PAC's vision of the locality.

Such an appeal to history reveals how industry workers' arguments are not driven purely by economic interests but also involve complex moral claims that are linked to identity and a moral sense of community interest. David Trigger's study of competing discourses over natural resource development in Western Australia demonstrates how foresters similarly:

> reject characterizations of their aspirations as solely related to economic interests and stress the sociocultural aspects of their work and broader community lifestyles…the

cultural value of local practices is celebrated for its centrality to maintenance of both rural lifestyles and the 'development' of the wider society (1999: 174).

This is clearly seen in the argument of the Drayton South mine proponents. They link their pro-mine stance to the history of the community, the important role they feel the mines play in the broader development of the region, and its support of community activities through mine attempts to retain their social licence to operate. However, within this claim of the critical importance of the mining industry to the region, they also recognize that the town is suffering, partially from this very reliance. A third pro-mine speaker stated:

> But Muswellbrook is now dying; the community that relied on mining to survive is dying. Shops are closing. People are moving away, there are no jobs for the builders …Unemployment is rising and will continue if Drayton South is not approved. What will happen to the jobs of the 500 workers at Drayton? What will happen to their wives and their families?

Here, the defence of the coal mining industry as a provider of employment to the men (and financial support to their wives and children) also highlights the increased vulnerability of reliance on the mining industry.

Such responses, from community members who support the mine, highlight a problematic issue at the heart of Anglo American and the Drayton mine's claim to localness. That is, that although the mines are responsible for a significant amount of employment and investment in the town's facilities, these jobs and financial support are reliant not only on the approval of more mines, but also on the global commodity cycle. The experience of the mining bust has made this instability particularly profound, leading to a complex contradiction through which this appeal to the local is made. Given the region's reliance on the coal industry, the loss of coal jobs is a problem, but this

simultaneously requires admitting that the mining industry is subject to the contingent economic forces that create vulnerability and global interdependencies.

The coal industry is reliant on global commodity cycles, representing a clash of scales between its *local* impacts and its *global* conditions. Despite attempts to delineate the local and privilege the region, these local livelihoods are inherently entwined with global processes. This resonates with the growth in precarity as an experience of the Anthropocene, that links the dependencies on decisions made in seemingly distant places to a sense of insecure and increasingly contingent futures. Here, concerns about globalization, are exacerbated by concerns about global climate change. Globalization's interdependencies are made worse through the double bind of Australia's position in the Anthropocene. They are vulnerable to climate change as carbon emissions occur in a shared atmosphere, and they are vulnerable to the potential economic consequences that global policy to limit carbon emissions might induce.

In the 1990s, globalization became "the definitional characteristic of an era" (Tsing 2000, 331) through the fall of the Soviet Union, signalling the triumph and global spread of capitalism and international free trade. It may be too early to diagnose the era, but signals point to the late 2010s, particularly the post-GFC era, as one of a retreat from the global. The increased precarity linked to the neoliberal triumphalism of the last few decades have signalled a return to a privileging of the local. "Globalist" has become a slur used by the new nationalists, reflected in political movements from Brexit to the election of Donald Trump.

Stepping away from the PAC hearings for a moment, such discontent was clear among the Drayton workers who had recently been laid off and began showing up in the

CCC office in Singleton. The CCC office was loaning a room to Anglo American to use for the purpose of meeting with the laid-off employees of Drayton. Since I had the desk that best overlooked the office, I became the de-facto secretary, directing these men to the employment counsellor who had rented the small office that Sam occasionally used. The employment counsellor was meant to help them find new work. Some of them had managed to turn their redundancy payments into early retirement. Others, for whom a longer period in their working lives remained, had to worry about finding work in a shrinking industry, as senior workers, experienced but often in a very particular and not easily transferable skill of mine operations. Many of these men got their first job in this same mine by calling up a friend. Now they are reduced to sitting in an office room with a young woman who worked for an employment counselling service. Her image and mannerisms, as a Canadian young woman, seemed to exasperate the power dynamics as she seemed to speak down to these men, upsetting gendered and age-based expectations of expertise, which were worsened by her foreign accent.

The embarrassment that this process represented to many of the men was clear. For example, I overheard the employment counsellor go on for several minutes about the specific details of how to best present oneself for online job applications, before a man finally stopped her and said he didn't know how to get an email address. This revealed an incompatibility between these men's skills and the demands of contemporary employment. These men often left the office visibly upset and flustered. Mark and I continued on with our work in the office, but the presence of these men coming in and out provoked many discussions. For Mark, they represented the very real consequences of anti-mining activism. As I mentioned earlier, Mark had recently been laid off from a

job in journalism. He therefore understood the emotional difficulty of changing industries late in one's career. This is another location where the emphasis on employment and protecting jobs gets its moral weight for the coal industry and its defenders.[28] These workers might have retained their jobs if Drayton South had been approved. Then again, perhaps this would not have happened, as Anglo American was exiting the coal business as a result of decisions made in the London headquarters and based on a global cycles and forecasts for a mix of diversified commodities. Importantly, as evidenced in Moranbah in chapters one and two, the new company that would operate the expansion would likely have preferred hiring casual workers.

Here as in Moranbah there was increased precarity of employment in the mining industry and a loss of male stable employment. Such circumstances seem to lead inexorably to a regionalism that is historically constituted and tinged with nostalgia. The boom and bust nature of the mining industry, on the other hand, reveals interdependencies on global considerations, Anglo American's corporate boardroom in London or climate policy makers in Paris. These vulnerabilities to global forces—and particularly the temporality of cyclical commodities cycles and a looming end of coal through climate action—further intensify the tendency to retreat to a privileging of the region and the local. The insecurity that derives from this sort of global imaginary, and the retreat from it through the increased focus on the region as the limit of consideration, highlight how precarity is linked to a retreat from the global scalar imagination, which as I will show below has consequences for the scaling-up of environmentalisms.

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[28] I had a similar interaction with Sam, in which he explained that much of his emphasis on protecting coal jobs derived from his former job as a policeman. As a policeman, he responded to many suicides in public housing which he attributed to these people's lack of sense of purpose and meaning that their unemployment generated.

Rurality and Reputation: The thoroughbred industry's appeal to the region

The horse-breeding industry also appealed to its regional belonging. The industry's connections to the local region are forged less through CSR activities (though there is some sponsoring of local events) than through the invocation of historical and affective connections. Its main appeal was an appeal to a rural identity, its history, and critically—in contrast to the mines—its sustainability.

Despite the presence of over 40 mines, the Hunter Valley also has a lasting regional identity that rests on rural agricultural industries– of which horse-breeding is one. The mining industry argues for the possibility of 'co-existence,' but representatives of the agricultural industries are more critical of this possibility, particularly through concerns for their own reputations. McManus and Connor discuss the scripts of the 'rural' used in land use conflicts in the Upper Hunter Valley between mining and other industries and residents. They argue that 'rural' has become a critical term to describe a new identity politics around land conflicts with competing industries:

> The thoroughbred breeders, vignerons and food producers argue that farming is an essential activity that has been, and can continue, to operate for generations. They construct themselves as stewards of the land, knowledgeable about local conditions, a source of jobs and wealth and caring about issues such as water—unlike the coal and gas industries which are seen as temporary activities that damage the land permanently (McManus and Connor 2013: 181) (see also Sherval et al. 2018). [29]

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[29] Representatives of the wine industry did appear at the public hearing, but the major vineyards are a bit further away from the Drayton South mine proposal. Away from the PAC hearing, I followed up with a wine industry representative in an interview to ask why the wine industry wasn't as active in opposing mine developments as the horse breeders. The wine industry lobbyist told me that he actively discouraged the wine industry from getting into the political fight over the mining industry's expansion. He didn't want anyone making any association between the Hunter Valley's wines and its mines. The task of the wine industry lobby was to keep the cognitive association of the

The aesthetic and spatiality of rural livelihoods is linked directly to the temporality of sustainability, which agricultural industries claim for themselves. While they may not promise the immediate riches of the mining industry, they represent wealth creation over multiple generations, without the instability of mining booms and busts and the resultant social and environmental damage.

These scripts of rurality were clearly seen in the appeals of the thoroughbred horse breeding industry, as many speakers spoke about the heritage of the Upper Hunter as a pristine rural environment that was threatened by the encroaching mines. However, the PAC in its determination took these claims of the region as rural in a different framework that allowed their incorporation into the regional economy, as in their scale-setting such social and environmental concerns had to be translated into the economy in order to fit the PAC's conditions for consideration. This came through the economic arguments about the importance of the region's reputation. Through the concept of reputation, affective arguments were incorporated into the economic calculus of the PAC.

In weighing the impacts of the coal mine on the stud farms, the PAC recognized that the thoroughbred stud farms, as the backbone of the regional equine industry, relied on what they defined as "brandscape," that is the importance of the landscape for the brand of the industry. This included the aesthetic element of the rural farmland undisturbed by the proposed large open-cut pits, but also the precautionary approach

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Hunter Valley with pristine rurality and beautiful wineries over rolling hills. He argues that as soon as the industry started fighting the mines, people in Sydney would read in the newspapers that the wineries are being threatened by dirty coal mines and soon the wineries would be tainted by this association in the public imagination. The fact that the mines were closer to the horse breeders, however meant that the shared concern over 'reputation,' to be discussed shortly, could not override engagement in the struggle over Drayton South.

horse owners might take, as the industry is fuelled by elite reputation (New South Wales

Planning Assessment Commission 2017: 32).

This focus on the reputation brought up an interesting debate within the PAC

hearing, particularly over the expert report of economist Greg Houston, who argued that

the studs would not leave the Hunter Valley as they threatened to do if the mine was

approved. He argued that, as rational economic decision makers, they would stay in the

area because of the costs of relocating and the already existing presence of support

services of the industry, including the mare farms. This was constantly countered by

equine representatives who argued that their industry was not one of rational economic

calculus, but that they were dealing with high wealth individuals who want the best and

are not so concerned about the cost. Interestingly, while in many planning contexts,

emotional appeals to identity and belonging may be readily disregarded (cf. Weszkalnys

2010: 130), in the PAC hearings, such affective invocations were claimed to be an

important part of what constitutes the valley's reputation and thus its unique 'brand'.

Despite the business language of the 'brand', the more subjective and affective

elements of decision making were able to find room within the context of an

economically informed decision-making process such as the PAC. In their determination,

the PAC concludes, "[t]he Commission finds that in the context of the thoroughbred

industry business model, a decision by Coolmore and Godolphin to move would be

rational and based on sound economic principles, which are relevant to their specific

operations" (New South Wales Planning Assessment Commission 2017: 39). These

include "the international reputation and image of Coolmore and Godolphin; [and] horse

owners' expectations and perceptions of the services provided and of the environmental conditions of their assets" (2017: 38).

In their determination, the PAC maintained a privileging of rational economic decision making but allowed for the embedding of aesthetic and particularly reputational issues to be incorporated into the rational. This distinction between the aesthetic or reputational and the economic is of course not a clear-cut dichotomy, for as I argue at various points in this thesis, the economy is always, at least partially, embedded in and inalienable from the affective and emplaced dimensions of life.

However, this appeal to reputation also references a global, an elite who can make the decision to leave. Even a *regional* economy depends on a fickle elite whose whims the planning body must take into consideration. As one anti-mine speaker at the PAC hearing explained that the ongoing dispute over Drayton South led the royal family of Qatar to decide against investing in the Upper Hunter "because of coal mining concerns". The particular role of Middle Eastern monarchs looming over this dispute was pointed out by many mine proponents. A number of speakers in favour of the mine expansion pointed out this contradiction: employees of Godolphin who stood up at the hearing and extolled how the horse industry belongs to the Hunter Valley's local heritage were wearing the word "Emirates" emblazoned on their backs. The regional rurality was being upheld not to protect this rural heritage for its own sake, but rather to please the aesthetic desires of a Middle Eastern monarch with an expensive—and world-making—hobby. These contradictions are largely inescapable in contemporary Australia. The local and global can only be crafted as distinct in moments where lines are drawn in relation to specific conceptual configurations. Size, complexity, and geography may be materially

real, but the limits and connections which are highlighted or ignored are made and re-made in constant encounter.

From NIMBY to Paris: Scales of Environmental Engagement

The environmental concerns which did not fit into the 'economic reach' framing of the PAC's vision of locality were largely left out of its decision-making process. By defining locality as the regional economy, they effectively discounted environmentalism rooted in social and historic place-making that did not directly have a financial component. Arguments that relied on the aesthetic or affective attachments to the environment without a link to 'brand', while made passionately at the hearing, were not reflected in the PAC's determination. These concerns also draw on specific scales, and although primarily rooted in local experiences of environmental change and particular place-based attachments, environmentalists attempted to scale up these concerns in order to make stronger arguments to the PAC that highlighted the importance of considering the mine expansion's impact on global climate change and cumulative landscape destruction.

At the PAC hearing, the clearest calls to environmental protection as a reason to oppose the mine drew on affective connections to place similar to the claims of local belonging attempted by the mines and horse-breeders. These claims were most passionately made by aboriginal members of the community. Uncle Kevin Taggart, an aboriginal man belonging to a native title claimant group called the Wonnarua Traditional Custodians, lamented the environmental destruction of the landscape and waterscape. He emphasised the degradation of the Hunter River, calling mining "environmental terrorism" and described his deep attachment to an alive but ill Country: "It's Mother Earth to us, she got her belly cut open and she's bleeding toxins into our river". Scott

Franks, another Wonnarua man, although a member of a different native title claimant group, the Plains Clans of the Wonnarua People, forcefully emphasised his longer connection to the land and purposely countered the claims of the horse breeders and the mine opponents to their regional belonging, proclaiming "You are here on *my* land." He recounted the spiritual and historical connection that he and his fellow Wonnarua maintain to the land. He intentionally emphasized that the two opponent positions' claims to belonging were entirely farcical in the context of his people's belonging, and perhaps he was also mocking the appropriation of this sense of belonging by the white settlers Australian environmentalists who were also speaking at the hearing. Interestingly, these two speakers were the only two that I noticed had clearly exceeded their time limit. The secretary of the PAC attempted to stop their comments, but when they ignored him and continued, he allowed them to keep going until they finished. None of the other speakers received this leniency.

The leniency these speakers received, as well as Scott Frank's claim to his unique relation to country speak to an interesting dynamic in aboriginal claims to place-based belonging, particularly as they are utilized in land-use conflicts in Australia. Although indigenous land claims and their use in political contests has been the subject of key anthropological work on opposition to extractive industry (Ballard and Banks 2003, de la Cadena 2010, Kirsch 2006; Sawyer 2004), this has been a particularly strong focus in Australian anthropological literature which has studied the relation between aboriginal and settler-Australian relationships to land (De Rijke 2012; Povinelli 2002; Strang 1997; Trigger 1999; 2008; Trigger et.al. 2014). Foundational to these studies are contested representations over the maintenance of deep attachment. This is particularly problematic

through the requirements of native title law in which the preservation of attachments becomes a legal matter. The native title system as well as settler-Australians' discourses of belonging rely on, as Trigger and Mulcock argue, "deeply embedded assumptions about hierarchies of 'spiritual belonging' to land [which] give priority to those individuals who can make the strongest claims to autochthonous status" (2005: 307). Thus aboriginal Australians come to represent the ultimate form of connection, against which settler-Australian claims to belonging are measured (see also Strang 1997). This is utilized by environmentalists as they draw on these discourses, and frame their own connections to landscapes in similar terms (de Rijke 2012).

For example, speaking after Uncle Kevin Taggart, a white settler Australian and regional resident turned environmental activist, Robert McLaughlin, stated at the PAC hearing: "It's not until your land is directly threatened that you truly realise how strong the feeling of place is—and how irreplaceable the land is." Further, he argued in rather academic language, "It's well recognized that the construction of place identity is a fundamental human activity, and the need to belong within a shared geography, is the equivalent to such basic human needs as liberty, sustenance, and security from violence."

These discourses, however, also enable political alliances between aboriginal people and settler-environmentalists. In fact, Robert McLaughlin and Uncle Kevin Taggart often protest together. Sometimes, settler-Australians appropriate a romanticised ideal of aboriginal relations to land, and other times they form a pragmatic alliance with aboriginal groups (de Rijke 2012; 2013). I will come back to these issues when discussing solastalgia in the next chapter, but my particular interest here is in the scaling of these claims of place-based belonging to regional and global concerns.

It is crucial to understand that, in the specific case of Drayton South, the community members whose comments at the PAC hearing are cited above, such as Robert McLaughlin and Uncle Kevin Taggart, do not live in the direct vicinity of this mine. Although they were active in the fight against the expansion of Drayton South, their activism is rooted in another mining land dispute in the nearby town of Bulga. Bulga is surrounded by two large open-cut mines, and the town has shrunk considerably as a result of the deterioration of the rural life-world in the shadow of these mines. They have been particularly politically active over Rio Tinto's (formerly Coal and Allied) Mount Thorley Warkworth mine, which after numerous struggles has received permission to mine through a buffer separating the town from the mine. These people's presence at this PAC hearing over Drayton South represents a broadening of the scale of their environmental engagement from a directly experienced threat to their local town, to a broader regional concern, and as I will show shortly, global concerns over climate change.

Eriksen's study in Gladstone, which emphasises the unidirectionality of large-scale interests, seems less applicable to this particular conflict (Eriksen 2016). But his emphasis on how environmentalist engagement can scale up aligns with my own observations (Eriksen 2018a, 2018b). Of particular interest is a form of environmentalism he discovered in Gladstone, which he terms "expanding", which "moves from its initial local scale to a larger, even planetary scale, but remains anchored in local life-worlds" (Eriksen 2018a, 134). He argues that the common critique of people who only oppose mine developments when they directly affect them as NIMBY (not in my backyard) environmentalists, is thus seen in a new light in this expanding form of engagement. This

analysis applies well to the environmentalists speaking at the PAC hearing. Their concern largely started with experienced environmental changes around their home, but they have since become engaged in a broader environmental politics, both in standing up to the growth of mining in the region of the Upper Hunter Valley, and even increasing into the scale of the global through appeals to the cumulative impacts of mines to global climate change.

However, climate change does not fit neatly into the scale of the planning regime particularly when the PAC defined the locality as a regional economy. For as this chapter has argued, the way in which the plan is conceptualized, and the scales with which it engages, crafts the possibility for particular forms of engagement. Or, as Abram and Weszkalnys succinctly state, plans "both encapsulate and exclude worlds of imagination" (2011: 15). Thus although the scale-setting of the region enabled some affective dimensions to be incorporated into a concern with the economic through reputation and branding, this privileging of the region also inhibited the ability of environmentalists to scale-up. This disempowered environmentalist claims to incorporate cumulative impacts and climate change in the decision making process over the mine expansion.

This point was made clear in an interaction between Bev Smiles, a regional environmental activist from Wollar, and a PAC commissioner during the public hearing (for more on this area see Askland 2018). During her presentation Bev argued:

> There is a need for a transition in the Hunter. We are vulnerable to international decisions on carbon, regardless of New South Wales continuing to prop up the coal industry. …The Hunter could be at the forefront of this structural change, instead of the most vulnerable…we should be looking at the cumulative impacts.

As she got to this point, she was interrupted by a member of the PAC sitting at the front of the room. He sternly, and in a tone which sounded rude to my ears, directed her to "stick to this mine". As he attempted to cut her off, he inadvertently pointed out the problem she was attempting to highlight, that is, the need to see this mine as part of a larger phenomenon of coal mining and its global environmental impacts, particularly climate change. However, this was incompatible with the scale of the regional economy to which the PAC's considerations of public interest was limited.

Further, Bev's appeal to the Hunter's vulnerability to "international decisions on carbon" also contrasts with the sense of control that is privileged in the notion of planning. The modernist logics of control crumble in the face of decisions that derive from outside the region. The precariousness of localities to international forces, whether in the form of Anglo American's boardroom meetings, Sheikh Mohammad's aesthetic tastes, or climate negotiators meeting in Paris, all shape the conditions of precariousness in the Hunter Valley, despite attempts to translate them into regional concerns.

While some of the alliance formation in Australian environmental politics, particularly the Lock the Gate alliance, have purposefully avoided discussing climate change due to its politically polarizing effects (Mercer et al. 2014), in the case of the PAC hearing, climate change took a prominent role in the oppositional language of environmentalists speaking at the hearing. Robert McLaughlin argued, alongside his appeals to the importance of place-based identity, that "the signing of the Paris Accord demonstrates that the Government knows we need to keep fossil fuels in the ground. If we are to keep global temperature rises under 2 degrees, there is no valid reason to keep mining our coal deposits." Or Bev Smiles, further argued in her comments to the PAC:

Australia has become signatory to the Paris Agreement and the NSW Government has announced a policy of 100% renewable energy by 2050... Intergenerational equity is a key consideration in weighing up the social benefits of extracting a further 73Mt of coal against substantial economic, social and environmental costs already being felt around the world and here in the Hunter from extreme weather events.

The prevalence of this appeal to the Paris Agreement is a likely consequence of the timing of the PAC hearing. Australia announced its ratification of the Paris Agreement on November 10, 2016; these meetings were held a week later on November 16th and 17th. Thus, this was used as evidence that the Australian federal government had made commitments that the environmentalists hoped would trickle down to the state planning bodies. The underlying assumption was that large-scale political decisions affect local-scale ones. Here the assumption of the unidirectionality of global to local is revealed as inefficient, for climate change and carbon emissions appear nowhere in the PAC's final determination document.

Conclusion

A final quote from the PAC hearing explains the importance of alternative imaginations for the region. A mine opponent stated,

We all use coal powered energy in some way and there will be many of you who would be critical of those that oppose this mine because of that, however this is not about picking apart different issues within each industry, it is about the best outcome for all of our futures…Our current government may only be in power for the foreseeable future but that isn't what they are here for—they are meant to be looking after our country for the long term. It is time for the government to stop looking for the quick dollar and invest in long term, sustainable industries. A lot of these industries already exist in the Hunter, such as tourism, horse breeding, viticulture, dairy farming, and many other agricultural industries. With some forethought and more diversification the Hunter Valley will survive a decrease in coal mining…Coal

prices may fluctuate up and down but there is no disputing that coal mining is in global decline whether we like it or not.

The above quote describes a call to shift the attention of planning towards the coming transition facing the region. The unsustainability of the coal industry is the main starting point of the argument, not only in cyclical market terms but also through an inevitable 'end of coal.' This 'end of coal' argument draws primarily on economic arguments that global seaborne coal is in structural decline and that building any new thermal coal export capability is a sunk asset risk, as is evidenced by Anglo American's own corporate decision to exit the Australian coal market. However, the inevitability of the coming transition is also spurred by the shifting social expectations and affects, which, as I have shown in this chapter, involve temporal, spatial, and conceptual scales that contest the PAC's definition of the locality and draw on the affective and symbolic attachment to historical place-based subjectification.

This chapter has argued that the scale-setting of the planning body, the PAC, in the context of the Drayton South mine land-use conflict, performed a type of work which enabled and excluded particular imaginations of the Hunter Valley's past and future. The PAC's decision to define the locality in favour of whose best interest it was meant to decide, at the level of the regional economy, reflected a privileging of the economy consistent with neoliberal planning regimes. However, the regional limitation also enabled affective and historic conceptions of place-based imaginations to be incorporated into the language of the plan. Yet, this regionalism also disabled the attempts of local environmentalists to scale up their concerns from an individual mine to a global concern with climate change.

This contradiction between the regional as a way of incorporating the affective and as a way of re-embedding economic considerations into planning logics, and the inability to scale up place-based environmental concerns, represents an ambiguity at the heart of Anthropocene awareness and alternatives. Scalability, Tsing has argued, has been fundamental to the spreading of environmental destruction and the destruction of diversity through the logics of capitalist expansion, best exemplified in the form of the modular plantation (Tsing 2012). She argues that "[w]e need a nonscalability theory that pays attention to the mounting pile of ruins that scalability leaves behind" (2012: 506). This presents a complication at the heart of how anthropologists have attempted to deal with the acknowledgement of the Anthropocene. Can we avoid the Anthropocenic "global designs" (Mignolo 2012) of modernity and capitalism that ignore the local histories in which they are embedded, without political engagement being limited by the non-scalable? Can we avoid new "global designs" without simultaneously ignoring the interconnections between local lives and their global consequences? This is an inherent contradiction with imaginings of how to think with possibilities in the Anthropocene, especially when it comes to Anthropocenic ruins, the topic of the next chapter.

CHAPTER SIX: The Final Voids: Solastalgia and Speculative Knowledge

Alongside my participation in the CCC, I attempted to reach out on my own to the aboriginal community in the Upper Hunter Valley. They were largely not represented within the CCC. My focus was to try and understand the complex native title process and the various divisions amongst the competing clans of Wonnarua for native title determination. One person I eventually contacted was an elder named Uncle Neil. He agreed to meet with me for a coffee. We sat down one morning but our interview was cut short as he said that he didn't know much about mining and wasn't interested. He didn't care so much about the native title claims. He just wanted to share his culture. I changed my questions and began asking him about this. However, after about ten minutes he stopped me again. He said: "Why don't I just show you?" A few minutes later I was riding in the passenger seat of his truck. He drove me around the region, pointing out landmarks and telling me the dreamtime stories associated with them. It was a beautiful sunny day, and the landscape took on a new liveliness through his stories. He had an intimate knowledge with so many of the landmarks we passed, but our main destination was the sacred Baiame cave.

The Baiame cave is a large open cave that holds an aboriginal cave painting depicting Baiame, the creator spirit who crafted the Hunter Valley according to the Wonnarua people (see figure 6.1 overleaf). The cave painting is located on private property, although the owner keeps the gate open to allow visitors to this sacred site. We drove through the open gate, and the cave appeared on a large hill, overlooking the Milbrodale Valley. Stairs have been built to allow easy access. We ascended the stairs to
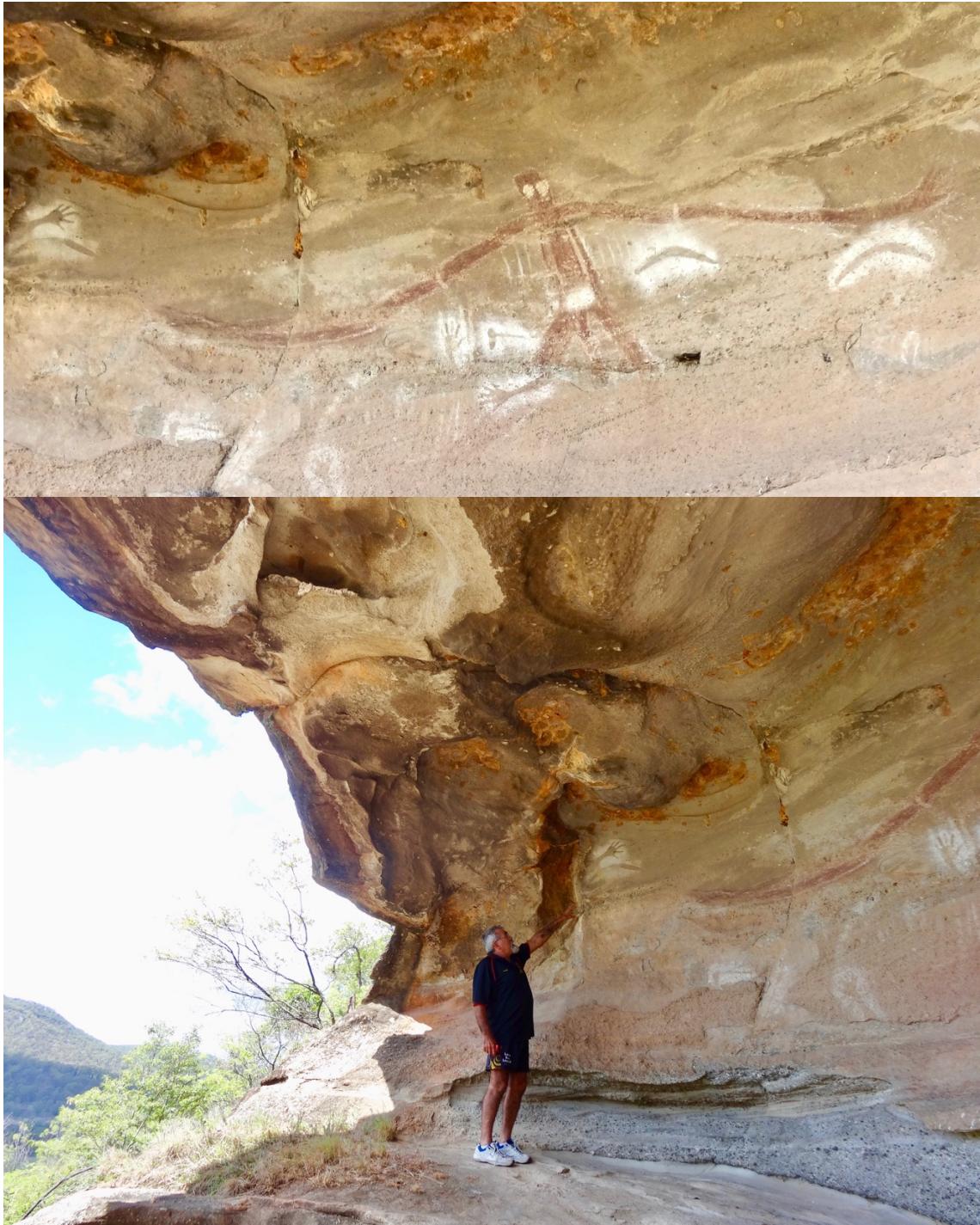
Figure 6.1 Baiame Cave (photographs by author, with permission of Uncle Warren, Wonnarua elder).

the cave's large opening, and the figure of the ochre Baiame with his outstretched arms and bulging eyes grew larger and more imposing.

Uncle Neil said the painting itself was around 2,000 years old. He explained that the depiction is meant to emphasize Baiame's role as protector of the valley. His outstretched arms and his large exaggerated eyes emphasize that he is all-seeing, watching over and protecting the valley and its people. Uncle Neil posed for a picture and took one of me in front of the large painting. After appreciating the painting for a few minutes, we turned around to descend back down. We then looked over the valley, taking in Baiame's view as overseer. The rolling green hills stopped abruptly in the horizon, turning into a grey expanse. In the distance, we could see the Mount Thorley Warkworth open-cut mine. I pointed it out to Uncle Neil. In this context he was willing to talk about the mines. He told me that this is all sacred land to him and that seeing the mines there upsets him. He said "they want to turn all of this" as he outstretched his arms to mimic Baiame's, "into a mine". He looked despondent. In this sacred space, the mines could be felt encroaching closer and closer.

There are fewer and fewer vantage points in the Upper Hunter Valley that don't have a mine somewhere in the background. Even if carefully obscured behind ridges, a keen observer can still notice their presence from the puffs of smoke rising up from the mine blasts. This landscape transformation has led to affects of loss and melancholy, similar to those Uncle Neil seemed to be experiencing as we took in Baiame's view of the valley. The aboriginal relationship to land is often used as an ideal against which white settler Australians conceptualize and measure their own affective attachments to landscape (Trigger and Mulcock 2005) and I present it here to highlight how such affects

serve as complex and perhaps contradictory inspiration for place-based belonging. It is of course difficult to study affect ethnographically without access to people's interior emotive life. However, in the case of the Upper Hunter Valley, a term was developed—which inspired by aboriginal dispossession—is intended to capture the shared sentiments of melancholy evoked by the landscape transformation for settler Australians: solastalgia (Albrecht 2005).

This chapter will first describe this concept of solastalgia, and the way in which it has been taken up to describe affects deriving from environmental destruction. Solastalgia, according to its originator Albrecht (2005) is an affect that is evoked from the experience of the mined landscape's transformation. It is also discursively taken up and crafted by environmentalist community members into an oppositional politics and reclamation of a pre-mining heritage through calls for a specific form of land rehabilitation. They call for the mining companies to fill in the mine final voids, the large holes left in the ground after mining has finished. However, the coal industry lobbyists are attempting to shift the final voids from being understood through these affects of loss, or in industry terminology, a "legacy issue". Instead they emphasize the potentiality of the final voids, emphasizing them as a source of alternative regional futures. This chapter engages in this contested understanding of the mine final voids, showing that what gets to be counted as a ruin is political. It thus speaks to recent anthropological interest in Anthropocenic ruins and blasted landscapes (Tsing 2015) in which ruins appear as potential sources of hope, leading to the question: should we celebrate the potential of these ruins or should we mourn them and insist on their repair?

Solastalgia

Early in my fieldwork with the CCC, I set up an interview with Drew and Sally, the two environmentalists who actively participated in the CCC's meetings. We sat down to a coffee on Singleton's main street. I began by asking them how they felt about the changes that had happened in the Hunter Valley from mining. In response, Drew asked me if I had heard of the word 'solastalgia'. I would soon find out that he was a retired professor, hence his familiarity with the scholarly concept. He was in fact an environmental scientist and while he could easily have explained the specifics of the ecological damage, he instead focused on this concept.

Solastalgia was developed by a local philosopher Glen Albrecht in 2003. The term was largely inspired by the emotional distress he recognized amongst friends and acquaintances living in the Upper Hunter Valley, in the vicinity of the massive landscape changes from the growing number and size of the open-cut coal mines. He found the emotional distress they experienced to be very similar to the concept of nostalgia, primarily in its original usage as an illness caused by the inability to return home (Albrecht 2005). However, in the Hunter Valley, people were still in the same geographical location, only the landscape was changing drastically around them. Hence Albrecht coined the new term solastalgia to represent the melancholy felt by those whose home place was being destroyed. As Albrecht argues, solastalgia "is manifest in an attack on one's sense of place, in the erosion of the sense of belonging (identity) to a particular place and a feeling of distress (psychological desolation) about its transformation" (Albrecht 2005; see also Albrecht et al. 2007).

It is noteworthy that this term was developed in the Upper Hunter Valley to describe these specific affective responses to the open-cut mines. It has thus been further applied as an analytic by anthropologists working with other Australian communities who oppose open-cut mines or other fossil fuel projects (Askland and Bunn 2018; Connor 2016a; Eriksen 2016; Eriksen 2018a). [30] It has also been linked with the experience of aboriginal dispossession and draws on the representations of aboriginal people as ideal environmental stewards through their autochthonous belonging (Trigger and Mulcock 2005). This reflects the appropriation of indigenous discourse by settler Australian environmentalists at the PAC discussed in the previous chapter. Albrecht himself, drew inspiration from indigenous dispossession and the supposed pathologizing effects of their nostalgia for their home to explicitly link lost places to experiences of pain (2006: 34). This is problematic as he goes as far as to link this pain to increased alcoholism in indigenous populations, without properly taking into account the continuing violences and discrimination they face. However, it is intended as reflective of this idealized conceptualization of indigenous belonging to nature and the experience of dispossession (Trigger and Mulcock 2005).

However, the new concept of solastalgia does not require dispossession, for the landscape is changing around someone who is emotionally attached to its previous form. For this reason, it appeals for the way in which it appropriates this indigenous sense of belonging but without requiring the full dispossession they experienced.

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[30] The concept of solastalgia has also been taken up more globally (Klein 2014: 165), and in a variety of contexts: everything from psychiatric hospital design (Wood et al. 2015), a study about facebook (Heath 2012), natural disaster recovery (Silver and Grek-Martin 2015), to African climate related migration (Tschakert and Tutu 2010).

To show how this concept enables the affective sense of historical belonging but in a way that is compatible with settler-colonial history, it is helpful to hear more of my interview with Drew and Sally. In this interview, immediately after describing solastalgia, Drew explained further, "The sense of place and the importance of it tends to get devalued here in the Hunter." Sally interrupted: "Australia is not older than 200 years, so we need to hold on to our history. And these companies come, mainly from overseas and they just destroy, and it happened so quickly." Sally added, "The first river they [white settlers] took was the Hawkesbury. Then they discovered the Hunter when they crossed over the ridge. It is an early settled area. My family has been in the valley for 150 plus years. It's a sense of place thing." Sally's settler colonial view of Australian history—and her own family's direct relation to it—allows her to feel this "sense of place thing," but obviously her historical depth contrasts significantly to Uncle Neil's and Baiame's much longer timeline, with which I start this chapter.

Drew brought this scholarly concept, solastalgia, to my attention in this first interview, but he and Sally were certainly not the only informants with an activist bent who deployed it. Its reception within this same population suggests that it accurately represents this feeling of loss they experience, even as it problematically draws on indigenous dispossession. The comments of local environmentalists during the PAC hearing, particularly Robert McLaughlin, in the previous chapter—"It's not until your land is directly threatened that you truly realise how strong the feeling of place is—and how irreplaceable the land is,"—reflect such solastalgia. For even when not directly used, such a sense of melancholy over lost places was palpable when people reflected on the aesthetics of the landscape.

By way of illustration, I spent a summer afternoon at a small winery whose owner I had befriended as a helping hand during the harvest celebration. A number of local friends of the winery gathered for a lunch. It was a beautiful day and I was struck by the beauty of the landscape, ripe with thick grape vines on the green rolling hills. As I was pouring organic rosé for the attendees, I commented on this beauty. A couple of women quickly corrected my romanticism, as I seemed to have interrupted a discussion on the mines. One of them, actually the land-owner on whose land the Baiame cave is located—her family equally implicated in this history of dispossession—told me that although it might be beautiful right here, that driving to the winery today had made her sad. She had been living here her whole life, but as she passed the huge mines that were just over the hill,[31] she felt them encroaching closer and closer, threatening the remaining beauty of her home. She told me it looked like a "World War landscape" and she hardly recognized it anymore, the once familiar landmarks were so different that she first missed the turnoff. She continued, "so much for all this rehab they're supposedly doing. I don't even know where I am anymore, and I've lived here my whole life."

Even on a day that was meant to celebrate the harvest, my attempted small talk about the surrounding landscape was not taken up. Instead, I was shown a nuanced lamentation. A sense of loss hung over the celebration of nature's harvest, not unlike the clouds of grey smoke sometimes seen rising over the hills and signalling the presence of an open-cut mine's blasting operations just over the sightline. The aesthetic of the mined landscape is very evocative, very powerful, as it induces such affects of loss (Navaro-Yashin 2009) for many. Even the mining industry is quite aware of this, as is shown by

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[31] From this location it was the Mount Thorley Warkworth Mine she was most likely referring to.

Figure 6.2 Aerial photo taken from an airplane flying above an open-cut mine

(photograph by author).

the fact that views into the mine pits are often very carefully obscured from the roads which pass by them. Mark once whispered to me while we were in a Coal Lobby Organization meeting at which a video was played which showed sweeping aerial images of the mines on the landscape (see figure 6.2 overleaf), "Why would they worry about the mine voids? They're so beautiful" as he raised his eyebrows in obvious sarcasm.

The terminology itself, 'final void' was something Mark similarly discussed with me. "It's just such an evocative phrase, they really ought to call it something else. They call them something else in Canada. It's just such an obvious PR mistake." His recognition of the terminology's problematics reveals that the material characteristics of the final voids make them especially problematic. As a physical hole in the ground, the final void is a particular type of ruin, which through its materiality evokes emptiness and absence. Ruins are physical reminders of loss or destruction, although often associated with historic acts of violence and destruction, such as war, ruins are also the partially devastated environments of the sacrifice zones of anthropocenic extraction, such as the plantation or the blasted landscape (Kirksey et al. 2013; Tsing 2015). The mine final void thus represents a particular form of ruin of extractive industry, one that—through its material emptiness as a physical hole in the ground—is amenable to producing affects of melancholy and loss. However, it is human subjects interacting with their experiences of landscape alteration, as well as the political constructions and rhetoric around them, that produces such affects in relations with the material void. This view of the void as ruin thus represents the critical role of materials within resource assemblages, without assuming over-determination or an inability to

differentiate forms of agency within these assemblages (Richardson and Weszkalnys 2014).

Solastalgia resonates with Navaro-Yashin's "anthropology of melancholia" in which she describes the affective impact of ruins as both subjective and object-oriented (2009). Recognizing the object-oriented stand of Actor-Network Theory (Latour 2005) she argues that ruins exude their own affect as actants, but that "[a]t the same time, those who inhabit this space of ruins feel melancholic: they put the ruins into discourse, symbolize them, interpret them, politicize them, understand them, project their subjective conflicts onto them, remember them, try to forget them, historicize them, and so on" (Navaro-Yashin 2009: 14-15). This represents a middle-ground between object-oriented approaches which emphasize symmetrical agencies and subject-oriented approaches which discount materiality (see also Empson 2011: 22-3). The evocative mined landscape induces affects through its networked materiality. However, these have also been put into discourse through the concept of solastalgia, and further politicised through a discourse that has attempted to reclaim lost landscape through a particular form of mine rehabilitation. Of critical importance has been a strong call to fill in the mine final voids.

Mine Final Voids: Geology, Hydrology and Political Demands

In order to understand the presence of final voids, both materially and politically, it is necessary to grasp the basics of the open-cut mining process. In the region, the coal seam is a layer of coal that runs largely parallel to the surface though at a slight incline. Thus in order to get to this geological layer of coal (the coal seam), the mining process is to blast holes in the layer of rock above the coal seam, and to remove it. This mix of soil and rock above the coal seam that is blasted and removed in order to reach the coal seam is called

overburden. The overburden is piled up behind the exposed coal seam which is then mined. The mine generally starts where the coal seam is closest to the surface and the mining process moves forward as the seam angles down deeper. The mining moves forward with the overburden being pushed behind the advancing mine front, filling in the previous void created. However, at the point where the mine is no longer economically viable, where the coal seam is so deep that the cost of removing the overburden is higher than the value of the coal underneath, the mining process ends. Thus at the deepest point, mining stops. This leaves a gap where there is no further overburden to backfill the previously advancing void, leaving a *final* void.

One might assume that the final void would represent the volume of coal that is extracted from the ground throughout the mine's life, but in actuality this depends on the strip ratio: the ratio of overburden to extracted coal due to the expansion effects of the overburden. The actual missing volume is significantly smaller than the volume of extracted coal because, in the process of removing overburden, the layers of rock above the coal seam are blasted into smaller pieces before being dug up. This breaking up of the rock causes it to expand, as there are now air gaps between the rocky mix, rather than solid sheets of compacted rock.

This expansion is called the swell or bulking factor and accounts for a 20-30 per cent growth in the volume of the rock overburden. This counters the volume of the extracted coal, which is often less than or relatively close to this swell factor. Therefore, the final void is actually a product of how the overburden gets moved throughout the mining process. Often, instead of moving all the overburden to backfill progressing mine voids, overburden heaps are left in various places if—based on the location and depth of

the coal seam and mine plan—it is economically prohibitive to move it. In the USA, where leaving final land voids is less permissible (although this is not strictly enforced and there are special conditions for mountaintop removal operations) mine plans take this into account, thus shifting the pattern of mining to ensure that minimal final voids are left. However, no such requirement exists in Australia, hence mine plans are crafted on optimizing the profitability of the mine rather than taking into account minimizing final voids (Walters 2016). This reveals how, as Jessica Smith argues, "[t]he practice of engineering a mine is…an ethical and political one, embedded in specific socioeconomic universes as well as natural processes" (Smith-Rolston 2013b: 591).

Final voids are part of the broader rehabilitation plans of mines, which have traditionally privileged attempts to return the land to its pre-mine form. Rehabilitation is largely focused on attempting to regrow vegetation on the previous mine site and to stabilise the landscape. The overburden is not particularly amenable to growing vegetation because, as it has been dug up, it is piled into large overburden heaps which sterilizes the land. Therefore in order to grow anything on the overburden which has been re-spread, it is necessary to put down organic soils. This requires considerable amounts of effort, even to grow simple grasses—hence the possibility of grazing cattle on this land was one of the projects of the CCC, discussed in chapter four. While the need for rehabilitation is a source of community concern in general, the final voids have become a particular source of discontent.

There are currently plans to leave at least 45 voids, with a total of 6,050 ha of voids in the state of New South Wales. This is a total area greater than Sydney Harbour.

Just within the Hunter Valley coalfield, 3,924 ha of voids will be left (Walters 2016). [32]

Most of these mine voids will eventually become large pit lakes and be terminal groundwater sinks. The life of a terminal sink void is that it will first begin to fill with groundwater, because the void is deeper than the groundwater level. Evaporation will be relatively slow at first, as the surface area of the forming lake will be smaller. The void must be thinnest at the bottom and wider at the top in order to stay stabilised. Eventually as the groundwater and precipitation continue to fill the void further, the water level will rise and the surface area of the lake will expand, eventually reaching an equilibrium where inflows equal evaporative losses.

In most cases, this occurs below the groundwater level, so the voids will act as permanent groundwater sinks. Reaching this equilibrium will take a very long time. For the Drayton mine mentioned in a previous chapter, it is estimated that it will take more than 200 years. For another mine, Liddell, the estimate is 50 years, whereas for the Bengalla mine, it is 1,000 years (Walters 2016: 10). Over time, most of these pit lakes will also become more saline, as evaporation continues and inflows from groundwater continue to contribute salts and, in some cases, heavy metals. Because the majority of mine voids will act as terminal sinks, they will decrease the pressure of groundwater and be a permanent draw on aquifers in the world's driest inhabited continent. However, this is still deemed preferable to allowing the water to flow from the void into the groundwater, called groundwater seepage. This has the more devastating potential to

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[32] This comes from 14 approved mine plans and does not count those in the project stage. These measurements draw from Energy and Resources Insights report, which measures the area of the voids by measuring the planar area at the lowest point of the void's crest (the spill point if the void filled with water) (Walters 2016: 6).

contaminate the groundwater supply with saline water from the pit lakes. Mapping groundwater, potential heavy metals and leachate, and predicting temperatures and rainfall predictions at such a vast timescale, are extremely difficult, and no two mine voids will be exactly the same. While mine plans make predictions, these are full of uncertainty. However, as mine plans have already been approved leaving these final voids, changing the plan in retrospect or backfilling the voids would be prohibitively expensive, and doing so is not required by regulators.

This merging of the void and the underground hydrology resonates with Empson's study of the shifting coastline in the village of Pagham, England. She argues that the shifting boundaries between water and land provoke ways of thinking beyond distinctions like nature-culture. Emphasizing the agency of water, her ethnography reveals the way in which these distinctions are consistently made, remade, and contested. This "edge-work" is more than the physical processes of maintaining coastlines and landscapes, but also inspires a "constellation of the new political subjects that have formed out of the experience of their changing environment" (Empson 2017: 256). The final voids similarly incite new political subjectivities, and as I will now show, inspire contests over a political engagement rooted in solastalgia and industry-led speculative knowledge (Weszkalnys 2015).

The voids have become a reputational problem for the mining industry, which coal lobbyists with whom I worked call a "legacy issue". This was the main sticking point between the two local environmentalist community members, Sally and Drew, and the coal lobbyists. They often brought this up in CCC meetings but it was generally

dismissed. It was also broadly acknowledged that it was a larger problem in the region, beyond the specific demands of Sally and Drew.

My first day working with the Coal Community Conference (CCC) was at the Coal Lobby Organization's (CLO) annual health, environment and society conference. It was held in a large hotel and convention centre in the middle of the Upper Hunter's main winery tourism area. As this was early in my fieldwork with the CCC, I felt out of place. Despite being open about my being here as a researcher, in such a conference, funded and run by the state's main coal industry lobby group, I watched and listened in a space that is often the exclusive realm of the industry, with outsiders kept out through high ticket fees or self-excluded through general disinterest. I explored the conference, visiting booths with various gimmicks to draw visitors in. An environmental company had a glass tank with a large snake that they had removed from a mine site. A health company had a big bowl of candy and stress balls emblazoned with their branding. I spent the most time visiting the Youth for Mining booth, run by Hamish, the young mine engineering student I described in chapter four. I then moved on to the large presentation rooms.

The conference began with a speech by the head of the CLO. He chose to start his presentation by playing a promotional video that had recently been shot. It celebrated the work of the CCC. The main participants, including Sam, and the mine representatives spoke about the successes they have seen in terms of weather monitoring aimed at controlling dust from blasting operations and the success of a trial allowing cattle to graze on rehabilitated mine land. They also celebrated the transparency and openness the dialogue format inspired. However, at the end of the video, Drew mentioned that he was still unhappy about the industry's plan to leave final voids, insisting that they be filled in.

This was something of an outlier in the very sunny picture the promotional video presented. When the video finished, the CEO of the CLO looked slightly annoyed as he said: "As you can see, we still have some work to do". I was impressed that this bit of honesty was not edited out of the promotional video, thinking this went a long way to proving the transparency and dialogue the video was meant to be celebrating. As I learned later, Drew's demand to fill in the final voids *had* originally been edited out of the video. When Sam showed the first cut of the video to Drew, he refused to be in the video unless they included his comments on the voids. They chose to show the video at the conference with his comments included, but neither version was ever released publicly.

Drew's insistence to fill in the voids was a point of particular frustration for the coal lobbyists. However, his opposition was only a small part of a much larger demand that the industry was facing. At this same conference, the COO of a major mining company identified the voids as the main emerging issue for the industry's community relations. Demands to fill the final voids have thus become a significant problem for the mining industry. The industry is therefore attempting to shift the narrative about them. As Stoler (2008) reminds us, what gets to be counted as a ruin is political, as power dictates what losses are recognized and deserve to be memorialized, thus whether the void is deemed a ruin, in the sense that it marks a loss that is to be lamented through solastalgia, is a matter of contestation.

This section will show how, although the mine final voids represent ruins for some inspiring affects of solastalgia, the material emptiness of the void also makes them conducive to incomplete and speculative knowledge (Weszkalnys 2015) which is

generated and encouraged by the coal lobby to shift the focus on the void from a marker of what is lost to an absence that is full of potential. The image of the final void as a site of potentiality is crafted through speculative knowledge and active encouraging of imagination, within the confines of acceptable levels of deviation from a scientific grounding.

Legacy Issues: Shifting the Void's Absence into Potentiality

Rehabilitation is a key topic of scientific research, primarily through geology, hydrology, and particularly soil science, as revegetation is a difficult process. One manifestation of this research agenda is the Tom Farrell Institute based at the University of Newcastle. I attended their 2017 annual conference with Sam and Mark because the CCC was a minor sponsor. The conference included several presentations on policy and planning reform, soil quality issues, acid mine drainage, and ecological monitoring. This small conference was held in the event space of the Muswellbrook pub. A powerpoint and podium at the front of the large room, with folding chairs were set around roundtables. I was sitting at a table with Sam and Mark at the side of the room.

The voids were a particular frustration for Sam, as he was generally proud of his ability to work with the community and compromise with their demands, finding outcomes with which both industry and community could be happy. The community demand to fill in the final voids was frustrating to him because it was one that the industry could not, in the end, afford to meet. Thus it revealed the contradictions between the CCC's goal of community dialogue and its funder's, the CLO's, priorities of profitability.

We sat next to each other and watched these presentations. Sam and I shared glances with an unspoken and shared acknowledgement that much of the detailed scientific discussion was going over our heads. However, soon a very different speaker stepped up to the podium. Penny Dunstan was doing her PhD in Fine Arts and presented an interesting argument that drew my friend and I in, although perhaps for different reasons. I was intrigued as she explained the importance of human connection to landscapes and the critical importance of aesthetics in decisions about land rehabilitation, describing the importance of forging human relationships to the post-mining landscapes. Penny described the case of Pointy and Flatty, two ironically titled "Cornish Alps", which, as the heaped leftovers from the mining of China clay or kaolin in St. Dennis, Cornwall, UK, are actually overburden mountains. Incidentally, she explained that these had become an important part of the landscape, something to which people were deeply attached. The image of the two 'mountains' was even used as the local primary school logo. When there was talk about flattening the two overburden heaps back into the originally flat landscape, the community protested and organized to protect and save their 'mountains' (Dunstan 2017). Sam looked at me, his eyes wide and with an excited grin on his face, he whispered, "That's what we need to do with the voids, we need to make people want them". In this, Sam recognized the negative affects that the voids tend to evoke but saw an opportunity to channel a sense of loss into one of attachment and meaning. This was a clear articulation of what the mining lobby had been attempting for the last few years in response to the dual community concerns: the final voids and economic diversification.

Attempts to channel the void into an opportunity have become a concerted and energetic project in the Hunter Valley. One such attempt was a community workshop held by the CCC, in which, according to the workshop report, community members gathered to brainstorm potential uses of the final voids. A hydrologist did a presentation on the basics of mine final voids. She outlined the basic hydrology and the difference between wet and dry voids. As I mentioned earlier, most will be wet in the Upper Hunter Valley because they are deeper than groundwater levels. The scientist explained the issues of water balance and water quality concerns, and then moved into a discussion of mine voids around the world that have been put to use in unexpected ways. She described and showed pictures of how dry voids have been used for film sets, and amphitheatres, or large sporting grounds such as in the Czech Republic where a void has become a horse racing track, a motor racing track, and an 18-hole golf course. Pointing to the Lusatian Lakes in Germany and the Quarry Lakes in Canmore, Alberta, she then described how wet voids have turned mined landscapes into beautiful lake districts, used for recreation. The final example she presented was the shining Intercontinental Shimao Wonderland, a hotel under construction outside of Shanghai. It is to be a 19-storey hotel built inside a partially water filled quarry, with 17 of the 19 floors underground and descending into the pit. Two of these floors will be under water. The hotel will host a number of extreme sports, like rock climbing and bungee jumping off the quarry and water sports in the pit lake. It will even include an aquarium in the underwater floors.

Figure 6.3 Rendering of Intercontinental Shimao Wonderland Hotel. (Photo courtesy of

Atkins Global)

The feasibility of similar plans for the Upper Hunter Valley was beyond the scope of the workshop and, as mentioned earlier, the fact that most voids in the area will be larger and deeper than the examples, be wet terminal sinks, and take hundreds of years to reach an equilibrium, make the practical realization of such ideas questionable. However, the unsettled nature of the hydrology and the long-term outlook make such projections a form of 'speculative knowledge' which is incomplete and partially obscured, in a similar manner to that highlighted by Weszkalnys when the finding of first oil is anticipated (2015). In Sao Tome e Principe's oil prospecting, the oil much anticipated has never materialized, but an assemblage of legal, scientific and commercial techniques nonetheless actively creates and sustains potentiality (Weszkalnys 2015: 624).

Returning to the workshop, through presenting world examples alongside hydrological predictions which make most of these impossible, a carefully crafted balance between physical limits and imaginative potential is achieved by the presenting scientist and her coal industry backers. The use of examples from other parts of the

world is meant not only to indirectly prove the feasibility of such projects but also to inspire community imaginations and displace anxiety about the voids into excitement about potentially vibrant and diverse economic futures. The scientist who ran this workshop lent further legitimacy to such ideas through her academic credentials and appeals to technical expertise. However, the science itself seemed to disprove the feasibility of many of these plans, particularly the plans that require dry-voids. Despite the questionable applicability of these examples, community members were asked at this workshop to vote on which potential uses of mine voids they most favoured, and they were presented with a "preliminary suggested list of potential end uses" and asked to vote for their favourite. The options with which they were presented included the more general options of recreation, entertainment, hydropower/alternative energy, and tourism. The more specific ideas were theme parks, bike trials, rock climbing/abseiling, golf course, film set, floating village, and surf park (cf. Scott 2010:115-136). The less pleasant options included abattoir, wool scour, waste management, and algae farm (Golder and Associates 2016).

This coal industry-led program to shift the final voids from a "legacy issue" into an "opportunity" reflects how ruins become sites of political contestation over the crafting of narratives of the past and projections into the future. The excitement of my lobbyist friend Sam about turning the voids into an opportunity represents a challenge to the tendency to see the voids as markers of loss. He wants to emphasize, not their connection to a past which is lost, but their potentiality as empty spaces. Sam prefers the way in which the emptiness of the void can represent promising future prospects. It

erases history through overlooking loss, obscuring drawbacks, and emphasizing entrepreneurial opportunity.

Such projects also draw people's imagination and hopes into them. Particularly in conditions of precarity, the potential for new employment opportunities overtakes many legitimate concerns. The coal lobby is aware that this framing of the voids as a potential source of entrepreneurial opportunities, solves two problems in one. First, it means that they don't have to fill the voids in and they can avoid the economic costs of doing so. Secondly it speaks to demands that the mining industry assist with economic diversification and preparing the region for when it eventually exists. However, the industry itself is not actively attempting to turn the voids into business ventures of its own, or even potential venture it will then sell-on to others to operate. In the entrepreneurial framing that the coal lobby is cultivating, it would seem that the voids would be a valuable asset and one they would not pass-up. Once the coal has either run out or is no longer worth digging up, these spaces would become available again for capitalism's newest spatial fix (Harvey 2001, 2003). However, the fact that the mining companies are not actively pursuing these capitalist projects themselves, seems to disprove their feasibility. They are only rhetorically enabling these speculative hopes.

This downplaying of the material limits in favour of imaginative projects is still confined within a loose recognition of geology and hydrology, something that the industry carefully balances so as not to seem overly unrealistic. For example, there were other reports on potential final void uses that have been commissioned by CLO, but they have not been publicly released because the carefully-crafted message must not veer too far off into impracticability. Releasing the community workshop report, however, was

deemed appropriate because it merely reflected community desires, rather than being an

account of coal industry policy. Such imaginative projects, although refusing to be

entirely limited by them, still acknowledge the presence of groundwater, rock chemistry,

and the water cycle, as fundamental limits to what is achievable. Yet despite these limits,

their potentiality as alternatives is achieved through forms of speculative knowledge

which maintain hope and aspirations despite the displacement of these projects into a

temporally far-off future (cf. Weszkalnys 2015). Some of the mine voids will take

hundreds of years to stabilize.

The Ambiguity of Emptiness

The same hydrologist who ran the community workshop described above spoke at the

CLO's annual health, safety, and society conference. Nearing the end of her presentation

on the potential uses of the final voids to create a massive lake district, she switched her

PowerPoint slide to reveal the front cover of a recently released ethnography I had just

finished reading, Linda Connor's *Climate Change and Anthropos*, and which I reference

repeatedly in this thesis. Connor is an anthropologist and the current head of the

University of Sydney's anthropology department. She had helped me from the early

stages of developing my research project. The PowerPoint slide included a quote from

her ethnography of the Hunter Valley where she, in turn, had referred to the work of this

very hydrologist giving the presentation. The hydrologist put up the slide quoting

Connor's ethnography as follows:

> A fantasy elaboration of the myth of coexistence is found in one industry expert's
> vision of transforming the Hunter's huge mining voids into recreational lakes, as
> reported in the *Newcastle Herald*:

'Disused Hunter mines could be transformed into picturesque lakes and used for aquatic activities such as boating, fishing, and swimming. This is a practice carried out successfully in Europe and North America and is under investigation in Western Australia.' (Thompson 2013) (Connor 2016a).

The hydrologist referred to Professor Connor's perspective of the 'fantasy' of coexistence as being a 'glass (half) empty' perspective for only seeing the negative liability of the mine voids, rather than the opportunities they might present. The empty glass is a perfect metaphor, for it is exactly this 'emptiness' that is at the heart of the debate under consideration here.

To many in the local community, the void is a permanent scar on the landscape. It evokes solastalgia. It is a reminder of destruction and loss—that which has been taken from the land and will not be replaced—which the evocative terminology 'final void' makes all too clear. It is also a concern about the environmental impact of leaving these large holes, most of which will become large lakes and hence permanent draws on groundwater supplies or sources of saline or heavy metal seepage that will potentially contaminate the area. The debate is as much about hydrology and geology as it is about absence, loss, and ruin. But surprisingly, it is also about imagination and perhaps—as Linda Connor's quote above accuses—about fantasy and myth.

At the heart of the disagreement between this hydrologist and the anthropologist is how to read the ambiguity of emptiness (McDonogh 1993; see also Bille et al. 2010; Meskell 2010). This emptiness of the final voids can produce affects of loss and melancholy but also produce memorialization and space for organizing a political reclamation of imagined pasts through calls to fill in the voids. However, the absence can also serve as a base for potentiality through the production of speculative knowledge

discursively and technically produced around it which generates hope and maintains potentiality. This draws from Weszkalnys' (2010) work on the potentiality of emptiness. In reference to Berlin's empty spaces, she says that:

> Emptiness is a city with potential for investment and economic prosperity in a globalized world; it is the European city destroyed and rewritten; a socialist capital now reinterpreted as 'history' or lack thereof; it is also a city of publics contesting and deliberating about the future (2010; 67).

The absence represented by the final void is a marker either of what is lost, or of opportunity, the potentiality of alternatives and different futures. This resonates strongly with Anna Tsing's recent ethnography on the "possibility of life in capitalist ruins" (2015). She attempts to read the ruin as hopeful, productive and filled with possibility. Through tracing the assemblages of the matsutake mushroom, Tsing finds opportunities for freedom and flourishing within the ruins of capitalism, and she calls on us to look in these spaces for life outside the failed progress narratives of capitalist modernity. Tsing's book evokes the disagreement mentioned above regarding the ambiguity of capitalist ruins: are they monuments of destruction or sites of hope? This chapter, however, differs from Tsing's project, for in the Upper Hunter Valley the voids are not yet released from control by the mining companies, and thus they cannot – or cannot yet—serve to reinforce human and environmental mutuality. What is at stake here is a contest over how these sites are to be understood, and as a result, what is to be done with them.

This is more than a landscape issue. The void is evocative because it represents an open and unknown future. In its emptiness, it is full of potentialities—good and bad—benefiting some and not others. In its emptiness it is full of hope and fear. It is precariousness metaphorically represented and materially real.

One night in the Upper Hunter Valley, I received a coveted invitation to a dinner with the head of the larger Coal Lobby Organization. I previously only had minimal interaction with him, so I attempted to manoeuvre my way into sitting next to him. However, I was not the only one seeking proximity to power, and my status as the most junior and only woman, saw me relegated to the far end of the table. Instead I was sat at the end of the table next to Sam.

Already feeling frustrated at missing my opportunity to talk with the boss, Sam then asked me that irritating question, "So, anthropology huh, what are you going to do with that? What job are you going to get with that?" I took a deep calming breath and gave him my usual well-rehearsed response used to pacify my in-laws. He picked up on the frustration underlying my monotone response and replied sincerely, "I only ask because I have three sons and I just do not know what to tell them to do with their lives. I don't know what to tell them to study, I mean, what jobs are there going to be in the future?"

 I felt bad about my earlier annoyance as I recognized the sincerity in his voice, and I realized that he was trying to genuinely engage with me. We soon began talking about automation and the loss of traditional male employment. He didn't necessarily insist that many coal jobs would be around much longer, as we discussed the broader trends towards automation in mining. I brought up Universal Basic Income, and to my surprise, he was well versed in the policy proposal but voiced his uncertainty regarding its success:[33] "You see, I used to be a cop in Adelaide. And in Adelaide, they put all the public housing together, so you end up with these ghettos. And when I was a cop, we

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[33] Universal Basic income refers to a variety of policy proposals in which a basic payment would be provided to all citizens of a country, regardless of their employment.

would get called out to these ghettos all the time." He paused again, and his face froze in thought as if images were flashing before his eyes before continuing in an increasingly solemn tone, "and I can't even tell you, how many suicides we saw. People without work, they just didn't have a sense of fulfilment. Their lives didn't have meaning. Universal Basic Income can't provide that. People need to work. There just has to be something, some work for people in the future. There just has to be!"

This conversation was one that helped me recognize the values that underlaid his lobbying for the coal industry, as I discussed in chapter four, but it also helped bring greater nuance to Sam's desire to turn the voids into hopeful opportunities. Coal jobs and industrial forms of social organization around structured male employment were things that he actively thought about, and the loss of which, he legitimately feared. A future without them was also a void, similarly full of ambiguous potential. He knows about the underground hydrology and the threats of casualization and automation, but he hopes there will be new jobs to fill this future: "there just has to be!"

Conclusion

Exactly how to read these landscapes as sites of hope or destruction is at the centre of not only anthropological debates on the arts of living in the Anthropocene (Haraway 2016; Hornborg 2017b; Tsing 2015a; Tsing et al. 2017) but also divides the experience of those living and imagining futures in the Upper Hunter Valley. For many, solastalgia is evoked and the ruins are lamented, and the call to fill the voids in is a desperate attempt to return to some familiar landscape, a home currently lost. For others, the final voids are a new landscape that is full of potentiality and amenable to the entrepreneurial desires of a diversified Upper Hunter Valley economy.

It is not my purpose to discount any of the imaginative futures I discuss above. Rather I aim to highlight that the 'legacy issues' that concern the coal mining industry rely more on the maintenance of potentiality than the realization of such futures. Solastalgia can only be displaced through hope on an ever-expanding horizon. The realization of these projects is limited by the underground hydrology, the geological possibilities, despite the carefully managed speculative knowledge of the mining industry (Weszkalnys 2015).

This emphasis on future-oriented speculation reflects what Braun et al. show is a fundamental problem in much of scholarly writing on the Anthropocene. That is, through the Anthropocene's future-orientation, much writing emphasizes either "catastrophe or redemption". Braun et al. write:

> On the one hand we find dominant apocalyptic vision of future global environmental disaster, figured as inevitable yet always receding political, economic, and ultimately biological ruination. On the other hand is a redemptive narrative that poses humanity's eventual salvation (perhaps via ruination) through adaptive technologies and governance, geo-engineering, or, more loftily, the success of climate politics. …What this means is that there is very little sense in the Anthropocene literature that different subjects are positioned in different ways with respect to humans' geological reordering of time and space in the here and now (2015: np).

What kind of hope can we find in these "blasted landscapes" (Kirksey et al. 2013)? What "arts of living" can we use on this "damaged planet" (Tsing et al. 2017)? And how should we live in these "capitalist ruins" (Tsing 2015)? These might be important questions for inspiring reflections on future possibilities, but they do little to help us think through the Anthropocene as a crisis we inhabit today and one which we can perhaps still

partially address. We must pay attention to the contingent politics through which ruins are made and their restoration displaced.

This chapter thus reveals the danger in celebrating ruins without sufficiently paying attention to the ambiguities through which power operates in Anthropocenic conditions. I have shown in this chapter and the last, that there are increasing demands being put on the coal industry and state government to support economic diversification. This derives from the precarity of labour in the mining industry and growing desires to find alternative (and more sustainable) sources of livelihoods. There is also a growing environmentalism that draws on concepts of human/nature as well as land/water entanglements and mutualities (cf. Empson 2017). The call to fill in the voids represents a political refusal to accept environmental degradation and is a reassertion of connection to lost landscapes. However, of critical importance is how the coal lobby-led effort to shift the voids into an opportunity works to displace these dual-anxieties that are beginning to form into political demands in the Upper Hunter Valley. These voids when framed as entrepreneurial opportunities offer the hope of alternative employment while also displacing environmental rehabilitation. Although precarity can lead to an articulation of political demands, it can also make people susceptible to such fantasy as the rise of a far-right populism implies (Berlant 2011).

The shared precarity faced by coal communities in Australia can be metaphorically figured in relation to these voids. The paradoxes and ambiguities of the void—what is to fill it, and perhaps should it even be filled to begin with—represent the dilemmas that frame and translate the political and moral positions around precarity in the Anthropocene. Do we lament a lost settler-colonial past (of 1870 or 1970) or do we

look further back and lament the lost times of the aboriginal dreaming? Do these felt

losses implore us to fill in the voids, to return to these idealized pasts where mining jobs

supported white fathers with housewives? Or, do we look forward to an alternative future

built in these emptied landscapes? Then again perhaps our desires make no difference to

the underground hydrology and natural forces which are reasserting their omnipotence?

This is a precarity that exists in relation to the unknown and highly contingent future, one

that is full of ambiguous paradoxes, political, moral, and ecological double binds. This

precarity is a crisis of labour; it is a crisis of the environment; it is a political contest; it is

a moral refiguring. It is thus an Anthropocenic precarity that connects the seemingly

disparate issues into a multiply figured and compounding crisis faced by coal

communities in Australia.

CONCLUSION

In September 2016, a massive storm hit South Australia, which tore down a number of powerlines and triggered a blackout that covered the entire state for several hours. In the aftermath of the storm, fossil fuel proponents blamed South Australia's high percentage of renewables for the blackout. South Australia has been the state most actively reducing its emissions and introducing renewable power generation. Blaming renewables for the blackout was inaccurate, as the blackout was caused by transmission issues rather than power generation. Nonetheless, the public messaging that blamed renewables for the blackout took hold, whereas the linking of the storm's intensity to climate change did not (Slezak 2016).

Similarly, the move to renewables has been blamed for rising electricity prices, which have more than doubled in the last five years. The government's own reports show this has little to do with the rise of renewables. It derives primarily from recent investments in transmission infrastructure (Sims 2018). Yet rising energy prices have coincided with the closing of coal generators thus fuelling the perception that expensive renewables are to blame. South Australia's plants in Port Augusta and the Hazelwood plant in the LaTrobe Valley have closed in recent years. The 2022 slated closure of the Liddell power station in the Upper Hunter Valley is the next on the horizon, which has seen the national government lobbying the generator's owner AGL to keep the plant operating despite the planned closure date (Murphy 2018).

These events continued to keep coal politics in the news as I wrote this thesis, shifting my attention from the everyday lives of the people I knew to the context in which they are mobilized for political interests. The continued blaming of weather outages,

rising energy prices, and plant closures on renewable energy appeared to me as an obvious tactic; one aimed at depicting the precarity of coal miners as either inevitable through changing technologies and their associated economic 'rationalities' or intentional through acts of malicious 'greenies' replacing reliable coal with expensive and 'intermittent' renewables.

This thesis was in part guided by this frustration. During my time in the field, I saw interconnections between the anxieties and the difficulties that my coal mining informants were facing and the anxieties that climate change evoked for environmentalists. But in urban sites like Sydney and Melbourne to which I occasionally travelled and from where I did some writing, coal miners were repeatedly pathologized, the loss of their employment and communities celebrated as an inevitable result of the march towards progress and away from the dark days of coal and carbon. Similarly, coal miners often refused to see that the challenges they were facing were the result not of environmentalists but of the relentless commodification of the Anthropocene. Their social and communal lives were like the landscapes they transformed into 'overburden' to be stripped away layer by layer in the service of extractive profits.

An anthropologist friend also studying the Australian coal industry once joked: "It's almost like we're doing salvage ethnography". I understood her invocation, and it made me appropriately morose. Although I am concerned about climate change, I cannot wish away the lives and livelihoods of the people I have come to know and love. I did occasionally feel I was capturing the moments before the fall, the beginning of a decline that would eventually lead to extinction. But regardless of the future of coal itself, the truly valued elements of livelihoods around it did not have to be so vulnerable.

Lauren Berlant developed the phrase 'cruel optimism' to describe a condition in which "something you desire becomes the obstacle to your flourishing," (Berlant 2011: 1) a mode that is rampant in the precarious present. The established forms of progressive modernity are no longer there, yet we still desire them. We hold on to these former dreams, without making new ones more amenable to the conditions we face today. I see this in many I worked with in Moranbah and Singleton, as well as in the discourse of Australian environmentalism. This makes people vulnerable to manipulation and to the kind of interpersonal accusations I describe in chapter three and four, whereby the desire to hold onto the familiar leads blame accusations to ricochet wildly, never hitting the appropriate targets. People also become vulnerable to intentional misdirection, as in the case of the displacement of hopes in the final voids (chapter six), or the Adani Carmichael mine (chapter four) where roused hope momentarily displaces the anxiety of miners, and environmentalist panic refuses empathy with labour (chapter three).

Yet there are also moments of awareness, when these manipulations become clear. Such as my discussions with the CFMEU leader in Moranbah who described the proposed Adani mine: "Carmichael is the biggest real estate scam ever…. The government is just stirring everyone up about it so that we blame the greenies for why we don't have jobs."

Witnessing the manipulation of this divisiveness was frustrating but seemed to take a broader and more critical significance in November 2016. I was conducting fieldwork during the election of Donald Trump. His repeated promise to bring back coal jobs to rural America gave a new weight to the 'jobs versus environment' rhetoric. Trump's electoral success has inspired a similar nationalist and populist message in

Australia which doubles down on climate denial and pits coal mining jobs and associated affective communities in direct opposition to global climate action and policy. The rhetoric of supporting coal jobs through rolling back environmental regulation hides the realities of what is happening to these jobs and the communities which rely on them, and it only heightens the double bind that coal communities face as they defend the industry that is undermining their livelihoods.

My fieldwork in Moranbah revealed that it was not climate mitigation that most threatens the emplaced communities and the affective and historic identifications and values of the coal miners, but the casualisation of the workforce, the rise of long-distance commuting, and the technological transformations of automation, all of which serve the alienation and commodification promoted by Anthropocenic capitalism (chapter one). Yet this process is incomplete and differently gendered (chapter two) and can be quite conservative as it calls for a preservation of a former Fordist way of life and sociality. But it is not the conservative tendency of such pro-coal politics that makes them problematic. The coal industry may draw on conservative rhetoric, but it is always on the move in the newest spatial and temporal fix (Harvey 2003).

The people of the Upper Hunter Valley were less uniformly defensive of the status quo. The presence of already existing alternatives, primarily rural industries, made it easier to imagine their home place without coal, crafting local versions of environmental engagement that drew on historical narratives and rural belonging. However, the institutions through which these imaginations were filtered limited their content and resonance. The planning process forced affective attachments into the frames of 'regional economies' and ignored the global scale of climate concern (chapter five).

The mining industry shifted solastalgic lamentations into 'legacy issues' and paused

dreams through speculative technologies (Weszkalnys 2015) that ever shifted the horizon

of potentiality (chapter six). Thus, the future is still unclear. Desires to map, figure and

plan fail in the precarious Anthropocene. The techniques for managing contingency,

mapping, planning (chapter five), and risk (chapter three), fail to bring ethical order in

these times of uncertainty (Bear 2015).

Yet the drive is still there. There is a pull to understand and distribute blame, to

seek moral direction and ethical order. Coal then becomes moralized. A lump of it waved

around threateningly in Australian parliament serves to mock the vibrant agency

environmentalists have endowed it in their tagline "coal kills" (Murphy 2017). The coal

industry has caught onto this moralising itself, emphasizing the benefits that fossil fuelled

modernity has brought the world's poor, and the right of third-world nations to buy a bit

of Australia's coal and development (chapter four). The scale of the problem of climate

change lends itself to such moral discourse, the intergenerational and international

consequences counter modernity's usual short term and localized decision making

(Callison 2014; Hulme 2009; Gardiner 2011). Political and legal institutions, techniques

of modernity, are not set up to deal with these Anthropocenic contingencies, and so we

appeal to morality.

Yet, as coal became entangled in moral debates, I saw only a hardening of

positions. In fact, I came to see that moral accusations seemed to be the mechanism

through which the political divisiveness I was so frustrated by was manifest and made

meaningful. My experience with coal-lobbyists revealed that, although often able to

recognize problems in the industry, when facing moral accusations that implicated them

morally they hardened their defences. They rose to defend the industry as a way of defending themselves, which took their lobbying efforts beyond those of their particular employment and into projects of ethical self-fashioning (chapter four). Similarly, moral accusations of greed saw the figure of the Cashed-up-Bogan, an immoral and greedy miner, replace the working-class figure of historical narratives. These 'CUBs' then threw counter accusations at the greedy investor, the urban elitist who was deemed the true threat to the community (chapter three). Political disagreements and different perspectives became irresolvable when translated into morality, embodied and pathologized through accusations that distract from structural critiques.

What are we left with when the institutions of modernity can't address our problems and our appeals to morality seem to only harden our divisions? Perhaps as post-humanists argue, we need to think with radically new frameworks (Latour 2013, 2017) to draw from indigenous ontologies and radical difference (Blaser 2009, 2010; de la Cadena 2010; Descola 1996; Escobar 2018; Kohn 2013, 2015; Povinelli 2016). But I maintain that we also need to understand the gaps and inconsistencies, the openings and opportunities, even within lives embedded in Anthropocenic ontologies.

This led me to an analytical and methodological perspective to think about the Anthropocene as *experienced*. I am drawn to the concept of the Anthropocene for its ability to bring together issues that have often been analysed separately and to recognize the interconnections between the crisis of modernity and the ecological crisis (Tsing 2015). Therefore I do not want to abandon the approach, but to use it strategically to highlight these interconnections. However, as I argued in the introduction, an

anthropological approach to the Anthropocene should recognize connections without assuming a totalizing coherence. This is what I have hoped to do in this thesis.

I have highlighted numerous places in which Anthropocenic logics direct action but are also inconsistently deployed. This is why I have titled this thesis, 'Digging Deeper'. I have tried to dig deeper into the places that appear particularly typical, to look closely at the complexity of power and its contestations, the inconsistencies and frictions that continue to exist even within modernist ontologies of extractive industry. This is in some ways similar to the argument of Tsing (2015) and others (Tsing et.al. 2017) that in the Anthropocene we need to cultivate the "arts of noticing" (Tsing 2005: 17-25). However, this 'noticing' does not have to be limited to interspecies relations or life in ruined landscapes to make a contribution to the study of the Anthropocene. Even those humans seemingly stuck in the constraints of Anthropocenic ontologies inhibit lives full of ambiguities, inconsistencies, and thus potentialities.

We need to find these gaps in the Anthropocene and intellectually dwell in them. These include the way in which local environmentalists in the Upper Hunter Valley attempt to scale-up their engagement, refusing attempts made in the planning process to confine them to a single mine (chapter five). There is also affective power in the concept of solastalgia, developed as an analytic in the Upper Hunter Valley to describe the sense of homesickness that comes as your home changes around you (Albrecht 2005), but which has been taken up locally and spread to environmental engagements around the world (chapter six). There is also hope in the women of Moranbah who manage competing pressures, living fulfilling lives despite the precarious conditions they face and whose desires and pursuits feed back into the forms that extractive capital takes (chapter

two). There are emerging demands for diversification and growing environmentalism despite attempts to capture these anxieties by the coal industry (chapter six). Finally, there is the call to a 'just transition,' as organized labour is beginning to develop a politics that recognizes the interconnections between labour struggles and those of the environment. This is where I hope to take this project next.

A recent submission by the CFMEU to an Australian Senate Inquiry on the Retirement of Coal Fired Power Stations set up in response to the closure of the Hazelwood mine and power station states:

> If we want to achieve major change that mitigates global warming, the social impacts must not be treated as a secondary issue. To the extent that climate policy creates losers, it will be resisted (and this is especially so if opportunistic politicians seek to exploit the fear of loss) (Construction Forestry Mining and Energy Union 2016: 28).

In terms of moving forward with an anthropology of the experienced Anthropocene in Australia, there is an obvious opportunity for conducting research in the LaTrobe Valley of Victoria. As I mentioned in the introduction, Australia has three major coal mining regions, two of which I researched for this thesis. The third, the LaTrobe Valley of Victoria, is currently undergoing a transition away from its coal mining and burning past. The LaTrobe Valley, outside of Melbourne, was the home to brown (lignite) coal mines and associated thermal coal power stations which provided much of Victoria's electricity, but which are some of the most carbon polluting in the world. The main Hazelwood power station there was closed in March 2017, and workers were only given five months' notice. In the light of this sudden closure, the state government has promised AU$266 million for the transition but, perhaps more profoundly, the community is

beginning to make demands on the government and industry for a 'just transition' (Wiseman et al. 2017).

The 'just transition' draws largely from organized labour's push for better management of the energy transition. The concept was originally developed by the Canadian Labour Congress but has now been taken up in many communities. They argue for "a social climate change agenda focusing on developing a multi-levelled labour voice in the green transformation of jobs and work, with labour and community actively involved in planning, deciding and operationalizing all phases" (Lipsig-Mumme 2008:7 quoted in Goods 2011). Proponents of the just transition argue that as the move from fossil fuels to renewables is made, those previously working in these industries should be helped to move into new jobs, and that the jobs of the new economies should be stable, safe and well-compensated. Of course, as this thesis has shown, the concerns and attachments to mining jobs are far greater than an attachment to the wage. Instead, there is a whole set of values that are represented through mining labour. This includes its relation to Australian history, the environment and community it engenders, as well the racial, gendered and intergenerational distributions it enables. All of these complex social, moral, and political questions frame what 'justice' will variably mean in the context of an energy transition. Nonetheless, environmental organizations are realizing the political power that comes from working with these populations rather than against them (Wiseman et al. 2017). Perhaps, a new politics of mutual recognition (Smith-Rolston 2014: 32) may be beginning to emerge through the shared precariousness of the experienced Anthropocene. However, many questions remain about how this emerging political discourse of the 'just transition' will work in practice and be grounded in place,

including what and whose imaginations it will privilege or exclude (cf. Smith and
Tidwell 2016). Therefore, I hope studying the ongoing transition in the LaTrobe Valley
will continue the intellectual project this thesis represents only the beginning of.

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