

Chapter 15

Mining and (Sustainable) Local Communities: Transforming Ravensthorpe, Western Australia

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Abstract This chapter examines local community experiences, understandings and changes attending the presence of mining activity, in particular as occurred in the Shire of Ravensthorpe in the South West of Western Australia (WA). It does so by drawing on an extensive ethnographic study spanning the development, opening, and closure of BHP Billiton's Ravensthorpe Nickel Operation (RNO). Given that the negative consequences of mining activity are most evident and complex at the local level, it is crucial that we understand and address how communities (and the individuals and families who are both part of and are shaped by communities) experience the impacts of mining. Though difficult to measure, social and cultural dimensions of mining at the local scale, as this chapter demonstrates, are central to our understanding of mining as a curse or cure.

Introduction

Mining refers to heterogeneous activities, for example in terms of the mined resource and its particular production characteristics, the stage of the mine life cycle, the specificities of a given workforce, and individual mining company attributes and community engagement strategies. Local communities are also variously shaped by demography, size, geography, history, community identity and values and, in relation to mining, the level of resource dependence, historical relationships to mining, pace of development, governance structures and institutions, and the organisation of mining labour. In addition, 'community' is a complex and deeply subjective concept and experience (Joseph 2002; Mayes et al. in press). The degree of heterogeneity this heralds makes discussion of the relationships between mining activity and local communities both difficult and complex. This

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is particularly so in relation to the contested benefits and negative consequences, which often go hand in hand and are experienced differentially not only across but also within communities (Mayes 2008; Petkova et al. 2009). Notably, negative impacts are particularly evident and complex at the local level and concentrated in particular social groups (Petkova et al. 2009; Hajkowicz et al. 2011). Similarly, power imbalances are most pronounced at the level of local community engagement with what are often multinational mining corporations enjoying substantial state support (Mayes et al. 2013). While the degree of economic and social upheaval experienced varies from mining community to mining community, local communities carry significant mining-related burdens (Petkova et al. 2009; Mayes et al. 2013; McDonald et al. 2012).

This chapter examines this burden as experienced in the Shire of Ravensthorpe in the South West of Western Australia (WA). In doing so it contributes to our understanding of the resource curse thesis as fundamentally inadequate in its focus on and privileging of economics over social, political and cultural dimensions of mining (Pick et al. 2008; see Chap. 1) In particular, this chapter foregrounds the role of scale and the politics of ‘measurement’ in the evaluation of social and cultural dimensions of mining. In order to do so, it draws on a substantial ethnography of the Shire of Ravensthorpe spanning the development, opening and closure of BHP Billiton’s Ravensthorpe Nickel Operation (RNO) and encompassing over 120 interviews with a diverse range of community members including pre- and post-mine residents, and members of local government and local community groups. Corporate media including RNO community newsletters are also utilised along with published work from this data.

First, the chapter examines recent, comparative, socio-economic analyses of the impacts of mining and the politics and complexities of the evaluation of community impacts. It then introduces the Shire of Ravensthorpe and RNO as exemplifying the ‘boom and bust’ cycle characterising the minerals industry. Thereafter the chapter examines three key dimensions of this local experience of mining activity: the transformative capacities of mining and its benefits and costs; community-mining company relations; and issues of sustainability, not least in the context of mine closure. The chapter concludes with a discussion of the centrality of the local-scale experience of mining to evaluations of mining as a curse or cure.

Measuring (and Masking) the Socio-economic Impacts of Mining

The impact of mining on Australian communities has recently been examined through the use of readily-available, quantifiable, socio-economic ‘quality of life indicators’. For example, Hajkowicz et al. (2011: 30) examined 71 Australian local government areas which contain mining activities to determine “the relationship between quality of life indicators and the gross value of minerals production from

Australian regions". The study used the following indicators: household income, housing affordability, access to communication services, educational attainment, life expectancy, and unemployment. Similarly, Lawrie et al. (2011: 139) focussed on the WA resource-dependent 'boom towns' of Kalgoorlie–Boulder, Port Hedland and Karratha–Dampier to examine the relationship between socio-economic well-being and resource dependence. Their study used indicators such as income, cost of living, housing affordability, welfare receipts, unemployment, population mobility, recorded crime, and participation in a volunteer group.

Hajkowicz et al. (2011: 37) find that "mining is positively associated with income, housing affordability, communication access, educational attainment, and employment at Australian regional scales". On the basis of these regional level findings the authors (2011: 37) conclude that there is no "evidence of a 'resource curse' in Australia's mining regions at the whole of local government scale". At the same time, the authors stress that they have merely established a statistical link between mining and these indicators and that other factors may be causing these associations. Similarly, identified inequalities in income distribution is noted as indicative of complexities and disadvantage "beneath [the] statistical aggregates" (Hajkowicz et al. 2011: 36). Lawrie et al.'s (2011: 159) findings confirm the heterogeneity of mining communities and that "the socio-economic trajectories of boomtowns are highly nuanced"; while these trajectories are "not always negative," resource dependent boom towns are not without problems particularly in times of rapid growth (Lawrie et al. 2011: 159). This work challenges the 'social disruption thesis' which posits major social and psychological dislocation and community breakdown, including a rise in crime, as an inevitable outcome of rapid growth in mining boom towns. Using recorded crime and volunteering statistics respectively as measures of social disruption and of social engagement in the three selected boom towns, Lawrie et al. (2011) argue that claims of severe social disruption should be treated with caution. While these studies suggest that mining towns are not necessarily severely dysfunctional (see also Petkova et al. 2009) they confirm the importance of nuanced and local-scale understandings of the conditions and consequences of mining activity. Such local understandings are important not least in that benefits at the regional scale appear to be "masking highly localised inequalities and disadvantages" (Hajkowicz et al. 2011: 30).

Despite the unruly heterogeneity and complexity of local-scale experiences and impacts of mining, it is precisely through attention to this scale that rich understandings of the everyday effects are possible. Without such ongoing analysis, our understanding of mining as a resource curse and/or cure is at best incomplete. Attention to the local scale is not only about determining highly localised inequalities; it is also about more fully understanding the way that socio-economic changes intersect with and inform day-to-day well-being and quality of life. As this makes clear, qualitative research from the local community perspective is necessarily a core component of nuanced local-scale analyses. In particular, local perspectives and voices, though not readily measurable, are valuable as 'questioning' and 'evaluating' assessments of local changes (Cheyney et al. 2002). Coming to grips with local impacts and experiences in this way is far from straightforward. In trying

to grapple with the range and distribution of community impacts, one long-term Shire of Ravensthorpe resident who had experienced firsthand the four, quite distinct, phases of exploration, construction, operation and closure of RNO, critically reflected:

One of the baseline studies that we talked about for some time and that we wanted to do was to try and capture people's impressions of how it was affecting them personally over the planning stage and then construction stage and then getting into the operation but we could never come to an agreement about how this should happen or how we should do it. It was too hard. It was easy to test vegetation and the soil and the water and, you know, all the other things, but getting into personal things like that was difficult so we never really decided how to do that.

This reflection highlights both the complexity of local experiences of mining and the difficulties encountered in trying to gain a collective sense of the social economy of mining activity. In particular, it signals how assessment of personal and community effects does not lend itself to measurement and testing and thus becomes 'too hard'. Rural communities are not only diverse but also differentially experienced according to social differences around, for example, gender, ethnicity and class (Panelli 2001). Meanings attached to changes taking place in the Shire of Ravensthorpe and elsewhere from mining activity, and their direct and indirect impacts along with local responses, are specific to particular groups, situations and times. Importantly, these meanings are contested and signify uneven power relations around, for example, the validity and importance of 'measurement' and what 'can' and 'should' be measured—and thus what 'matters'. This is of course also an issue in regard to seemingly objective socio-economic indicators. For example, socio-economic indicators other than those commonly used may show different outcomes (Lawrie et al. 2011). Similarly, Ivanova et al. (2007: 211 emphasis added), in attempting to determine "how the social and economic impacts *should* be assessed and negotiated with local and regional communities", show how various commonly used tools such as social and economic impact assessments are biased toward the identification of either negative or positive impacts.

It is in this fundamentally political context that the chapter introduces the Ravensthorpe experience before examining three key aspects of the local impact of mining activity, namely, the ways in which mining is understood and experienced as transformative, the broad contours of corporate community engagement, and the conceptualisation of sustainable communities.

Boom and Bust in Ravensthorpe

Following a lengthy evaluation process begun in 1997, RNO was approved for construction in 2004 and officially opened in May 2008. During this time ownership of the nickel mine changed from Comet Resources to BHP and then, through corporate merger, to BHP Billiton. Consisting of an open-cut mine and hydromet-allurgical process plant, RNO was Australia's largest nickel-laterite project

requiring an operating staff of 650. Ultimately the ore produced at RNO was further refined at BHP Billiton's Queensland Yabulu plant. Combined, RNO and Yabulu constituted the largest single investment in BHP Billiton's history (Department of Industry and Resources 2008). In response to BHP Billiton's efforts to establish a residential workforce, 300 employees and their families had moved to the region by May 2008 (RNO 2008), the majority of whom relocated to the Shire of Ravensthorpe, in particular to the small coastal community of Hopetoun. Indeed, the incoming workforce more than doubled the pre-mine Hopetoun population (Landcorp n.d.). The rest of the workforce was employed on fly-in/fly-out (FIFO), and bus-in/bus-out (BIBO) rosters.

The development of this mine heralded substantial, externally-driven, forced changes in the Shire of Ravensthorpe. Throughout its lifespan BHP Billiton's RNO was a pervasive aspect of everyday life in the shire and a watershed in local community life (Mayes 2008). Much local energy went into coming to terms with the presence of RNO and many local 'pre-mine' residents commented on this. For example:

Probably going back 12 months ago a lot of the locals were quite negative about the impact [of RNO] but I think people are sort of getting used to it. I think people have accepted the changes and ... there's nothing you can do. It's happening.

As others pointed out, "It's going to be here for 25 years; you might as well face it".

Though a 25-year estimated lifespan was repeatedly asserted by BHP Billiton, in January 2009, just 8 months after the official opening, BHP Billiton, literally overnight, commenced RNO's immediate closure, and also the closure of the Yabulu processing plant with a loss of some 1,800 jobs (BHP Billiton 2009). The demand for nickel began to fall in the second half of 2007 and the nickel price, renowned for its marked volatility over the last four decades, fell dramatically from a high in 2004 of US\$45,000/t, and a peak in May 2007 of US\$52,000/t, to just US\$10,000/t by the end of 2008 (International Nickel Study Group 2013). BHP Billiton announced the closure as "largely the result of the diminished prospects for profitability" (BHP Billiton 2009). This closure, as was the case with the arrival of the mine, had a profound impact on local communities (Pini et al. 2010; McDonald et al. 2012).

The Shire of Ravensthorpe encompasses four, distinct, place-based communities each of which were affected differently by RNO: Ravensthorpe (seat of local government and service centre to the surrounding agricultural industry); Hopetoun (small coastal retirement community and home to the majority of residential mineworkers); Jerdacuttup (farming community with its own school and hall, and location of the mine site); and Munglinup (farming community, part of both the Shire of Ravensthorpe and the neighbouring Shire of Esperance).¹ Importantly,

¹ While this chapter presents the Shire of Ravensthorpe as consisting of four discrete and unified place-based communities, it is important to keep in mind that many local communities may simultaneously exist in one location. The idea of community as neatly contained by place is

communities are not static; rather they are continually in the making, shaped by ongoing social and political contexts (see Panelli and Welch 2005), such as the arrival and departure of a large-scale mining operation.

Transforming the Shire of Ravensthorpe

The social, economic and environmental effects of mining, irrespective of positive or negative interpretation, are most often described as transformative processes (Bridge 2004). This is certainly true of government and industry perspectives on the social and economic effects of RNO. The WA Department of Industry and Resources, for example, in June 2008 (p. 2) announced that:

The transformation of Western Australia's Shire of Ravensthorpe from sleepy farming district to prosperous mining hub is complete following the opening of BHP Billiton US \$2.1 billion Ravensthorpe Nickel project near Hopetoun in May.

This transformation is presented as inherently positive. The development of the mine is also about 'regional' development (Department of Industry and Resources 2008: 2): "The successful opening of this project is as much about the development of regional Western Australian communities as it is about the State's buoyant resources industry." Similarly, BHP Billiton promoted the project as creating "a unique opportunity to advance regional development" (BHP Billiton 2004). A company publication celebrating the opening of the mine commended the Shire's ability to adapt to social change on a scale greater than that experienced anywhere else in WA in 2007–2008 (BHP Billiton 2008: 29). Readers are also assured that as a result of BHP Billiton's presence "we will continue to see this region transform in the coming years" (BHP Billiton 2008: 29). Evaluations of mining's impact on local communities in Australia also tend to accept and represent mining activity as synonymous with (positive) local development (for example, Owen and Kemp 2012) and understand the 'problem' or 'challenge' as one of enhancing benefits for local communities and mining companies, and managing negative consequences in the interests of reducing business risk (for example, Ivanova et al. 2007).

Often, these transformations refer quite narrowly to population change, employment opportunities and new infrastructure. Once RNO received the green light, the consequent "massive capital and population influx" saw the Shire of Ravensthorpe become one of the "fastest growing local government areas in Australia" (Department of Industry and Resources 2008: 2). During construction and operation phases mining dominated the local economy. Operational requirements such as the need for improved roads on which to transport ore together with the decision to establish a residential workforce ensured substantial infrastructure development. This 'multi-

more an analytical device than a reality (Massey 2005). For further discussion of the way that mining industry corporate social responsibility practices tend to construct and privilege place-based communities see Mayes et al. (in press).

user' infrastructure was funded by the federal government (A\$9.4million), state government (A\$18 million) and BHP Billiton (A\$9.5 million) (Department of Industry and Resources 2008) and included an airport, improvements to local and state roads, and a primary school in Hopetoun (Western Australian Technology and Industry Council 2004).

This transformation, however, is about far more than infrastructure, population growth and employment opportunities for some (see Chaps. 5 and 8). While Ravensthorpe may have been designated by outsiders as a 'prosperous mining hub', local residents contested this new identity. Jerdacuttup residents publically resisted the way that Jerdacuttup was increasingly seen as synonymous with RNO and Hopetoun pre-mine interviewees consistently referred to the overwhelming ubiquitous presence of "orange uniforms" in local public places, the beeping of mine vehicles, and the way the town felt 'taken over' (Mayes 2008) (see Fig. 15.1).² Indeed, for many interviewed pre-mine residents, the presence of RNO was pervasively experienced as a "sense of loss of control and marginalisation" (Mayes 2008: 25). This local sense of marginalisation and powerlessness (also see Cheyney et al. 2002) has significant implications for individual and community well-being and quality of life, as is discussed below in the particular context of mine closure.

At the same time, a fundamental reconfiguration of these four communities and their relationships to each other took place (Mayes 2008). For example, the new primary school in Hopetoun meant that student numbers in Ravensthorpe declined affecting funding and the long-term viability of the Ravensthorpe Primary School. RNO's decision to provide financial incentives to attract businesses to Hopetoun to assist in the retention of residential mine staff weakened Ravensthorpe's standing as the business centre and changed what local residents saw as Hopetoun's character. Further, the comparatively large residential area constructed by BHP Billiton primarily for mine employees restructured Hopetoun community dynamics. Hopetoun interviewees described a strong spatial and cultural division between what they saw as 'old Hopetoun and new Hopetoun'.³ While local inter-place rivalry and competition, if not animosity, pre-existed the arrival of the mine, RNO's presence introduced new tensions and inequalities frequently and vehemently commented on by local interviewees. This had much to do with uneven distribution of benefits and costs, but was also to do with the way the communities were rapidly changing according to the needs of (unstable) multinational capital.

The new infrastructure and fundamental transformations of the physical environment, however, were designed primarily to facilitate mining and to accommodate the needs and desires of new residents. Local benefits were thus secondary. From the local perspective, transformations also centred on opportunities for employment in the local area and social vibrancy due to the influx of young families

²This is a reference to personal protective equipment (PPE) worn by mine employees in Australia and which includes fluorescent orange safety vests. Similarly, reversing mine vehicles 'beep' as a safety mechanism.

³There were, of course, other more evocative descriptions of this division.



Fig. 15.1 The main street of Hopetoun showing the prevalence of mining vehicles Mayes (2008)

(Mayes 2008). The expectation of increased local employment, as interviewees repeatedly pointed out, did not substantially eventuate. The use of employment and income statistics in this instance would be questionable indicators given that the boost to local employment and income was largely centred on incoming workers just as local pre-mine residents were largely unable to secure the specialised jobs attracting higher pay and better conditions. At the same time the cost of housing in the Shire rose dramatically forcing those on lower incomes to leave. This in turn could manifest in a reduction in welfare spend in the area (and a rise elsewhere). As Ravensthorpe interviewees made very clear, the lived experience and community transformations attending the resource boom are more than (a far from benign) access to infrastructure and amenities, and indeed pivot on the transformation of community in both meaning and practice (Mayes 2008; Mayes et al. in press).

Mining-Community Relations

Local communities over the last decade are credited with having a ‘better’ understanding of their rights and as “placing more demands on governments and companies to ensure fair benefits from mineral activities” (Buxton 2012: 19). In some instances communities in Australia have been credited with having “significant influence on the outcomes of mining proposals”, including decisions to halt particular projects (Cheyney et al. 2002: 3; Buxton 2012). Not surprisingly, winning local community support has become a business imperative (see Humphreys 2000).

Mining corporations see relationships with local communities as an important component of their corporate social responsibility (CSR) strategies (Kapelus 2002: 275). In short, local communities are a key site of corporate legitimisation crucial to a project's smooth functioning (Mayes et al. 2013). The concept of the social license to operate is central to this. This concept emphasises social acceptability as fundamental to successful business and centres on meeting/managing the social and environmental expectations of local communities and the wider society. A social license to operate in the particular context of the resource industries can be a core component of corporate strategic risk management and a central determinant of invaluable reputational capital (see, for example, Humphreys 2000). Who confers this license and the means by which it is awarded is difficult to ascertain. The model assumes that communities and other social groups have the desire and capacity to effectively articulate, and negotiate, the unwritten conditions of acceptance (see, for example, Gunningham et al. 2004).

Importantly, the rise of CSR in the mining industry signals a shift from generalised philanthropy (as a means to ward off or offset criticism) to direct community engagement in ways directly aligned with core business goals (Humphreys 2000). The need for such engagement has long been recognised within and outside the industry, as has the benefits to industry from the "positive contribution which communities can make in the forms of labour, local knowledge, and assistance in access" (see, for example, Denoon et al. 1995: iii). In practice, this direct corporate engagement of/with local communities is far from participatory (Cheyney et al. 2002; Mayes et al. 2013), and a growing body of work seeks to improve corporate engagement and community development practices (see, for example, Owen and Kemp 2012). On another level, however, community engagement in practice is convincingly critiqued as fundamentally business-centric and concerned to manage local communities in ways supporting industry goals as opposed to better understanding the social consequences of mining (Banerjee 2008; Mayes et al. 2013). As part of this managerial approach mining companies position local communities as 'stakeholders,' which not only excludes a range of individuals and groups (Cheyney et al. 2002) but also belies power imbalances between communities and corporations (Bridge 2004; Banerjee 2008; Mayes et al. 2013). Such power relations must be included in examining local experiences of change. These encompass not only power relations between the local community and the mining company but also those internal to the local community (Panelli 2001).

The community engagement processes and strategies BHP Billiton implemented in Ravensthorpe were showcased by BHP Billiton as evidence of best practice, and of 'successful' community engagement (see, for example, RNO 2008). Three interrelated components constituted the RNO CSR community engagement strategy: namely, two formalised RNO-convened and controlled committees, regular community newsletters, and cash community development grants dispersed by one of the formal committees. A close analysis of these three components demonstrated how they were initiated and modified in response to market pressures, as opposed to community needs or demands (Mayes et al. in press). Importantly, these strategies sought to achieve community *adaptation* to the changes wrought by RNO and to

develop local communities, particularly Hopetoun, as a stable base for RNO and its workforce. The emphasis on ‘partnerships’ and ‘win-win outcomes’ evident in RNO/BHP Billiton discourse and practice, and also more widely in the mining industry, limited community benefits and concessions to those that also served the interests of capital; whether something of benefit to the community is supported or not is directly tied to whether or not this something also benefits the corporation (see Mayes et al. 2013). Importantly, the local adoption of a ‘partnership’ approach, itself a pre-condition of engagement, enables corporate appropriation of local labour, creativity and knowledge in securing a successful mine. For example, local residents contributed free labour and expertise (for example, serving on committees) which involved significant personal expense in terms of time, money and emotional stress (Mayes et al. 2013).

The consequences of privileging business-centric goals and the political positioning of the local communities as ‘mutual beneficiaries’ and ‘partners’ are made amply clear in an analysis of RNO’s (lack of) community engagement upon closure of the mine (Pini et al. 2010; McDonald et al. 2012; Mayes et al. 2013). Local criticism of BHP Billiton’s handling of the closure in particular focused on the company’s failure to honour the partner relationship by failing to ‘work together’ to either avoid or minimize the impact of closing RNO. Further, analysis of CSR approaches and practices in the Shire of Ravensthorpe suggests that engaging with mining corporations is of questionable value for local communities, not only in relation to free labour wasted in advancing corporate goals in the hope of securing community goals closely aligned with those of the corporation. Cheyney et al (2002: 21) in their Australian study of community perceptions of corporate ‘participatory processes’, also found a level of “disempowerment through participation”. While they see this as the result of *inadequate* processes, this outcome is arguably systemic and inherent in a process which sees corporations at the centre of the engagement process.

Sustainable (Mining) Communities

Mining corporations also come to stand at the centre of community sustainability. The minerals industry, both internationally and in Australia, invokes ‘sustainable community’ as closely linked to industry-driven (economic) development (ICMM 2010). The principal function of the powerful national industry peak organisation, the Minerals Council of Australia (MCA),⁴ is to promote the industry’s contribution to sustainable development in tandem with the notion that “the future of the

⁴ According to its website, the MCA is a national industry body representing 48 companies, which together account for 85 % of mineral production in Australia and which include the two largest transnational mining corporations, BHP Billiton and Rio Tinto.

Australian minerals industry is inseparable from the global pursuit of sustainable development” (MCA n.d.), specifically (MCA 2005: 2):

To the [Australian] minerals industry ‘social licence to operate’ is about operating in a manner that is attuned to community expectations and which acknowledges that businesses have a shared responsibility with government, and more broadly society, to help facilitate the development of strong and sustainable communities.

Further, the recently released MCA (2013: 7) report “Analysis of the Changing Resident Demographic Profile of Australia’s Mining Communities” argues that “Part of the story in developing sustainable communities includes developing a strong economic base. For many of the regions investigated in this study, mining has provided this economic base.” Industry commentary emphasises the business case arguing that “industry’s adoption of the more sustainable practices *will require*, and could even promote, *improved returns to capital in mining*” (Humphreys 2001: 107, emphasis added). ‘Sustainable communities’ and ‘mining communities’ are conflated by way of sustainable mining.

This claimed connection between the (mining) economic base and strong, sustainable communities is also promoted at mine site level. RNO, for instance, regularly communicated this to the local community in its tri-annual newsletters, in claims such as (RNO 2008):

Significant progress has been made in building a strong operation and sustainable community. It is important to recognise the job is not yet done and while we are committed to seeing the job through, it will take the support of everyone involved with the site and community to achieve the challenging goals we have set ourselves.

The message is clearly that the driving force is in transforming Ravensthorpe into a sustainable community. In light of the preceding discussion of community engagement, it is important to note that the story of sustainable mining is one of partnerships and shared local goals as opposed to one of community rights (Bridge 2004). The above RNO statement not only links sustainability to strong mine operations but also reduces community agency to the provision of support for industry goals.

RNO claims that it contributed to community sustainability were met locally with scepticism; for example, an interviewee closely involved with the RNO committees dismissed RNO sustainable development plans as airy-fairy. These plans certainly become empty rhetoric upon the sudden closure of the mine. A substantial body of research around mine closure has identified a number of serious economic and social impacts dependent on the specificities of the mining operation and of the affected community (McDonald et al. 2012). In Ravensthorpe the closure had a profound effect on the local community of both pre-mine and post-mine members. Interviews with Ravensthorpe residents conducted 3 weeks after the closure of RNO with long-term pre-mine community members and also post-mine community members, demonstrate immense economic, social and emotional upheaval, including around the connections developed between mineworkers and their families and the pre-existing community (McDonald et al. 2012). Emotional impacts were powerfully evident at personal, familial and community levels (Pini

et al. 2010). Following closure, the local (forced) acceptance of RNO, and the not inconsiderable free local labour mobilised in pursuit of its success and attendant ‘win-win’ outcomes (Mayes et al. 2013) was intensely experienced as having been for nothing (Pini et al. 2010). This is not to say that Ravensthorpe was wildly dysfunctional or incapacitated by this massive disruption—though BHP Billiton excused itself from attending public meetings on the basis of its (locally-contested) assumptions that these would be dysfunctional (Mayes et al. 2013). Community members drew on their understanding of themselves as resilient farmers or robust mineworkers as fortification against the suddenly changed circumstances. What is important here is that the intense emotions publically and privately articulated in Ravensthorpe, and the widespread uncertainty about individual and community futures, at the time of the mine’s closure constitute an important dimension of local (ised) costs attending mining activity.

Conclusions

Sustained, in-depth qualitative research in the Shire of Ravensthorpe with an emphasis on local community perspectives demonstrates how the community adapted to the RNO and how it responded to its sudden closure. What evolved was a cycle characterised by ongoing restructuring of community identity and sense of place. Australian rural communities have long been subject to major, though variously experienced, changes in the size and make-up of their populations, primary industries, levels of state social and economic support, and shifts in sociocultural values (Panelli 2001). However, this was forced, rapid change driven by transnational capital which, despite CSR programs and community engagement practices, had little sustainable responsibility or commitment beyond responding to market opportunities and constraints. RNO exemplifies the inherent uncertainty and contingency in mining operations: the sudden closure occurred in the midst of a generalised mining boom in Australia where a multinational hugely profitable company walked away from its biggest single investment and repeated public promises from BHP Billiton RNO that the mine would have a 25-year life span.

The local transformations are ongoing. After a period of significant uncertainty if not anxiety in the Shire around such issues as what would become of BHP Billiton’s relatively large local housing stock, First Quantum minerals purchased RNO in February 2010. At this point, the demand for nickel dramatically increased and prices climbed to US\$24,000/t (International Nickel Study Group). The rejuvenated operation also requires a 600-strong workforce some of whom are accommodated in the 160 Ravensthorpe houses built by BHP Billiton and acquired in the purchase. The first production of ore under FQM ownership occurred in October 2011. Here too the burden of ‘adaptation’ will be on local communities as opposed to the mining operation.

It is not the case that the local communities were passive victims, but rather that they were relatively powerless in the face of a multinational corporation with state

backing as demonstrated in the way that CSR processes forced communities to align with industry goals. In Ravensthorpe local communities actively engaged with RNO to 'make the best' of its presence and their activities helped shape the RNO operation. While there were certainly positive, though unevenly and even contradictorily experienced, aspects to the transformations of local communities in the Shire of Ravensthorpe, there was clearly an array of negative outcomes. Such outcomes tend to date to be either masked or devalued in external assessments of the social dimensions of mining, for example, through discounting social upheaval as something that lasts only for a limited time (Lawrie et al. 2011). The local experience of RNO highlights the limitations of assessments which foreground (measurable) socio-economic indicators to the exclusion of understanding places and communities as co-constructed through substantial, ongoing cultural and emotional investments from individuals and collectives (McDonald et al. 2012).

The importance of 'the local' as a scale for analysing the consequences of mining activity is made clear. Given the heterogeneity and complexities of intersections between mining and local communities, detailed local case studies are necessary for the development of nuanced context-specific understandings and the development from this of cumulative knowledge sensitive to the multifaceted contradictory nature of the relationships between mining activity and local communities (Flyvbjerg 2006). The personal, local community experiences examined here represent the intertwined material, social and economic consequences of contemporary mining and governmental pro-development policies. Such experiences are a crucial aspect of any comprehensive story of mining, not least so those directly living the boom may have a voice. Perhaps more importantly this study of Ravensthorpe demonstrates that the scale at which one 'measures' the impact of mining is central to understanding/experiencing it as either a curse or cure, just as the emphasis on what can be measured limits understandings of mining as a lived community experience.

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References

- Banerjee SB (2008) Corporate social responsibility: the good, the bad, and the ugly. *Crit Sociol* 34 (1):51–79
- BHP Billiton (2004) News release: BHP Billiton commits to residential workforce for Ravensthorpe nickel project. <http://www.bhpbilliton.com>. Accessed 5 May 2011
- BHP Billiton (2008) Ravensthorpe Nickel Operation: resourcing the future. <http://www.bhpbilliton.com>. Accessed 5 May 2011
- BHP Billiton (2009) News release: changes to BHP Billiton's nickel business. <http://www.bhpbilliton.com>. Accessed 5 May 2011

- Bridge G (2004) Contested terrain: mining and the environment. *Annu Rev Environ Resour* 29:205–259
- Buxton A (2012) MMSD+10: reflecting on a decade of mining and sustainable development. IIED discussion paper, International Institute for Environment and Development, London
- Cheyney H, Lovel R, Solomon F (2002) People, power, participation: a study of mining—community relationships. Mining, minerals and sustainable development project. International Institute for Environment and Development, London
- Denoon D, Ballard C, Banks G, Hancock P (1995) Editors' introduction: mining and mineral resource policy issues in Asia-Pacific: prospects for the 21st century. In: Proceedings of the conference at the Australian National University, 1–3 November 1995
- Department of Industry and Resources (2008) Ravensthorpe on world stage as nickel project opens. Prospect, Western Australia's International Resources Development Magazine, June–August 2008, pp 2–3
- Flyvbjerg B (2006) Five misunderstandings about case-study research. *Qual Inq* 12(2):219–245
- Gunningham N, Kagan RA, Thornton D (2004) Social license and environmental protection: why businesses go beyond compliance. *Law Soc Inq* 29(2):307–341
- Hajkowicz SA, Heyenga S, Moffat K (2011) The relationship between mining and socio-economic well-being in Australia's regions. *Resour Policy* 36(1):30–38
- Humphreys D (2000) A business perspective on community relations in mining. *Resour Policy* 26(3):127–131
- Humphreys D (2001) Sustainable development: can the mining industry afford it? Viewpoint. *Resour Policy* 27(1):1–7
- International Council on Mining and Metals (2010) Mining: partnerships for development. Using resource endowments to foster sustainable development. Mapping in-country partnerships. ICMM, London
- International Nickel Study Group (2013) Production, usage and prices. <http://www.insg.org>. Accessed 12 Apr 2013
- Ivanova G, Rolfe J, Lockie S, Timmer V (2007) Assessing social and economic impacts associated with changes in the coal mining industry in the Bowen Basin, Queensland, Australia. *Manag Environ Qual* 18(2):211–228
- Joseph M (2002) Against the romance of community. University of Minnesota Press, London
- Kapelus P (2002) Mining, corporate social responsibility and the “community”: the case of Rio Tinto, Richards Bay Minerals and the Mbonambi. *J Bus Ethics* 39(3):275–296
- LandCorp (n.d.) Hopetoun: Mary Ann waters. <http://www.landcorp.com.au>. Accessed 23 July 2008
- Lawrie M, Tonts M, Plummer P (2011) Boomtowns, resource dependence and socio-economic well-being. *Aust Geogr* 42(2):139–164
- Massey D (2005) *For space*. Sage, London
- Mayes R (2008) Living the resources boom: towards sustainable rural communities. Sustaining Gondwana working paper series, Alcoa Foundation's conservation and sustainability fellowship program, Issue 11
- Mayes R, Pini B, McDonald P (2013) Corporate social responsibility and the parameters of dialogue with vulnerable others. *Organization* 20(6):840–859
- Mayes R, McDonald P, Pini B (in press) 'Our' community: Corporate social responsibility, neoliberalisation, and mining industry community engagement in rural Australia. *Environ Plann A*
- McDonald P, Mayes R, Pini B (2012) Mining work, family and community: a spatially-oriented approach to the impacts of the Ravensthorpe nickel mine closure in remote Australia. *J Indus Relat* 54(1):22–40
- Minerals Council of Australia (2005) Enduring value: the Australian minerals industry framework for sustainable development. http://www.minerals.org.au/file_upload/files/resources/enduring_value/EV_GuidanceForImplementation_July2005.pdf. Accessed 9 April 2013

- Minerals Council of Australia (MCA) (2013) Analysis of the changing resident demographic profile of Australia's mining communities. http://www.minerals.org.au/file_upload/files/reports/MCA-13-ResidentialProfile0131-MYR.pdf. Accessed 9 Apr 2013 [report prepared by KPMG at the request of MCA]
- Minerals Council of Australia (n.d.) Sustainable development. <http://www.minerals.org.au>. Accessed 7 Apr 2013
- Owen JR, Kemp D (2012) Assets, capitals and resources: frameworks for corporate community development in mining. *Bus Soc* 51(3):382–408
- Panelli R (2001) Narratives of community and change in a contemporary rural setting: the case of Duaringa, Queensland. *Aust Geogr Stud* 39(2):156–166
- Panelli R, Welch R (2005) Why community? Reading difference and singularity with community. *Environ Plan* 37(9):1589–1611
- Petkova V, Lockie S, Rolfe J, Ivanova G (2009) Mining developments and social impacts on communities: Bowen Basin case studies. *Rural Soc* 19(3):211–228
- Pick D, Dayaram K, Butler B (2008) Neo-liberalism, risk and regional development in Western Australia: the case of the Pilbara. *Int J Sociol Soc Policy* 28(11/12):516–527
- Pini B, Mayes R, McDonald P (2010) The emotional geography of a mine closure: a study of the Ravensthorpe nickel mine in Western Australia. *Soc Cult Geogr* 11(6):559–574
- Ravensthorpe Nickel Operation (2008) Resourcing the future. Ravensthorpe Nickel Operation, Ravensthorpe
- Western Australian Technology and Industry Council (2004) Major economic developments in practice. <http://www.tiac.wa.gov.au>. Accessed 11 Mar 2008