

Dust and Silicosis: Conflicting Narratives and the Queensland Royal Commission into Miners' Phthisis, 1911

Abstract

In 1909-10 the Queensland Parliamentary Labor Party was engaged in rebuilding its strength from the opposition benches after a damaging split with its former leader, William Kidston, who continued as Premier in alliance with more conservative politicians. Reflecting the concerns of hard-rock miners, it campaigned to ameliorate the occupational disease silicosis (miners' phthisis). In December 1910 a Royal Commission was appointed to enquire into this 'evil'. This opportunity was squandered by the Commission's conservative findings the government's action in placing responsibility for dust suppression on tributers and contractors, and the reluctance of mining unions to alienate the latter by making silicosis an industrial issue. This article attempts to recover employer and employee narratives that helped shape this pivotal event whose legacy cast a long shadow over the lives of Queensland mining families.

Introduction do we need this? (prefer to keep)

On 4 November 1909 the newly elected Member for the North Queensland mining seat of Woothakata, E. G. (Ted) Theodore, rose in the Legislative Assembly to make his maiden Parliamentary speech. Theodore's address was succinct. Taking up less than two columns of Hansard, it highlighted the urgent need to safeguard miners from the dust produced by pneumatic drills. 'An increasing number of these infernal machines are now being used', Theodore warned, with 'serious' effects 'on the health of the miners'. Other Labor Parliamentarians from metalliferous mining seats echoed these comments. Myles Ferricks, Labor's Member for Bowen, declared that 'all the mining representatives' wished to bring miners' phthisis under the *Mines Regulation Act*. The prevalence of the disease, Ferricks informed Parliament, was 'making great inroads into our national life'.

For the Parliamentary Labor Party as a whole, the danger of hard-rock mining was a key issue as it sought to recover from a damaging internal split. This split had occurred in 1907 when the Premier, William Kidston, refused to bow to the organisational wing's demand that he end his alliance with liberal 'progressives'; an alliance which had in 1903 ended the long rule of the 'continuous' conservative Government then headed by Robert Philp. Routed by Kidston in the 1907 election, appeals to the interests of hard-rock miners were a major factor in Labor's rebuilding of its Parliamentary representation. In the October 1909 election Kidston's supporters, including George Jackson (Minister for Mines), lost all their metalliferous seats. By contrast, eleven of Labor's 28 representatives now came from mining constituencies. Even Croydon, the sole non-Labor metalliferous seat, was held by an ex-Labor independent, William Murphy. Throughout 1910 the Government found itself under relentless pressure on the miners' phthisis issue. Even the Governor's address and supply bills were turned into debates about

miners' phthisis.

By 1910 miners' phthisis —a general term for silicosis, tuberculosis, or a combination of both — was pandemic. Gold miners in Victoria and Western Australia were dying in great numbers, as were South African gold miners, Cornish tin miners, and American metal miners. All were victims of a technological revolution sparked by global demand for gold and base metals. This revolution began in the 1860s and 1870s with the invention of pneumatic drills — also known as rock or machine drills. Four times faster than hand drills, they greatly increased the speed of work and allowed mining to be carried out at ever-greater depths. Machine drills increased the quantity, quality and spread of dust. When rock made of silica was fractured extremely fine particles became airborne. Inhaled deep into miners' lungs, they caused scar tissue, or fibrosis. Damaged lungs were then susceptible to chest diseases like tuberculosis. Dynamite, available from 1867, contributed to the problem. Six times more effective in shattering rock than previous explosives, it also increased miners' exposure to silica dust.

Public interest in dust-induced mining diseases was slow to develop in Queensland. This partly reflected the late introduction of machine drills. Even the large Charters Towers field relied solely on handwork prior to 1881. But, as output became tied to deep-mining, problems mounted. In 1910 the Department of Mines reported that 'conditions arise in which dust is present to an almost intolerable extent'. Yet while the Government (here or earlier I think you to say something about the composition of this Government, to explain that Kidston had forced an election with Labor support but Labor did not support his ministry; something on the Philp-Kidston divide and then coalition is surely needed. DONE IN 2ND PARAGRAPH & BELOW) incorporated provisions for dust control into the *Mines Regulation Bill 1910*, it gagged debate about miners' phthisis. The Government's hesitancy in confronting the problem of miners' phthisis partly reflected its own internal divisions as Kidston, lacking a clear Parliamentary majority after 1908, was forced to ally himself with his old conservative enemy, Robert Philp.

Philp's supporters were not enthusiastic about the changes proposed in the new Bill. But, paradoxically, they were keen to address the issue of miners' phthisis, which they saw as stemming from unhygienic working practices rather than dust. In late 1910 conservative demands in the Legislative Council that infected workers be excluded from the mining industry halted the Bill's progress, as these suggestions were an anathema to the more liberal majority in the Legislative Assembly. Trapped between these conflicting views, Kidston announced that 'an expert Commission should be appointed to make a thorough investigation and report, not only as ... [to] the extent of the evil' but also on ways 'to modify the evil'.

Part of the significance of this Royal Commission lies in the push by Labor for a radical new approach to occupational health in the mining industry. Thus Theodore argued: 'The regulation of wages is a secondary consideration with most miners if they get fair conditions which ... conserve their health'. Miners' phthisis could not solely be blamed on the new pneumatic drills. It also resulted from management's past avoidance of its responsibilities. Harry Collins, Labor Member for Burke, remarked: 'The prevalence of this disease was owing to the fact that the mineowners had not done their duty'. To redress such failings, Labor urged provisions to stop mine-owners divesting their health and safety responsibilities to contractors. It had also included in its 1909 election platform a proposal 'for the election of inspectors by popular vote of miners'.

This article argues that two related factors underpinned the eventual failure of the radical perspective articulated by Labor during 1909-10. First, was a conservative perspective expounded by Dr J. S. Elkington, the Queensland Commissioner for Public Health, officials from the Department of Mines and a majority of the Legislative Council. This official stance denied even the existence of miners' phthisis, neatly severing any occupational connection by arguing that it was simply common tuberculosis, the white plague, with its lower class stigma. The composition of the Royal Commission meant that an endorsement of this perspective was

virtually preordained. The Commission's Chair, the pro-Labor Independent, William Murphy, was an active campaigner against the hazard of dust. But the other two Commissioners, Elkington and C. F. Jackson (Chief Inspector of Mines), were the leading advocates of the conservative narrative. As the Royal Commission (don't you need to explain who conducted it? Or indicate you will? DONE IMMEDIATELY ABOVE) heard testimony, this narrative was reinforced by employer evidence that attributed dust exposures to worker failure to adopt appropriate controls. Secondly, support for the radical perspective was undercut by the mute response from the leadership of labour's industrial wing. The *Worker* barely mentioned miners' phthisis. The minutes of Theodore's own union, the Amalgamated Workers' Association (AWA), record no discussions of the problem between 1908 and 1910. It will be argued that such failings can be traced back to the industry's complex employment relationships. Many of those engaged in hard-rock mining were not employees but tributers or contractors. As the latter frequently shared union membership with their own workers any industrial campaign over miners' phthisis threatened to divide the labour movement. In such circumstances, union leaders happily left the issue to Parliament, one arguing: 'It is not a branch question at all'. As Labor's interest in occupational health in Queensland's mines waned after 1910, the Commission's conservative legacy was long-lived. When, in 1916, the Ryan Labor Government finally brought miners' phthisis under the *Workers Compensation Act* its actions were largely within the parameters of the Commission's findings.

Changing Perceptions of Silicosis

Silicosis, a widespread occupational disease in the first half of the twentieth century, affected a broad range of workers. It was frequently part of public discourse on work and health and was the subject of numerous investigations involving metal miners, tunnel construction workers, stonemasons, quarry workers, and cement workers. In 1923, the industrial hygiene section of

the Pan-Pacific Science Congress was dominated by discussions on dust diseases and mine ventilation by national and international experts. As discourse on the definition, cause and prevention of silicosis shifted from the public arena to a small circle of scientists, engineers and technicians — particularly those in the American industry-sponsored Air Hygiene Foundation — public awareness of the disease declined.

Recently, studies have emerged into the medical aspects of silicosis, the industry and government responses, and a variety of social and economic effects including the migration of dying workers from the mining fields. The actions of unions and workers to mitigate the effects of silica dust have been examined to a lesser extent. The most comprehensive account of American metal miners has been Alan Derickson's work on the response of the Western Federation of Miners to issues of illness, disability, destitution, and death through the foundation of hospitals, campaigns for mine safety, and social insurance legislation. The action of Vermont stonecutters and Sydney rockchoppers has also been examined. Little has been written about labour initiative on silicosis, although the role of Australia's Miners Federation, the British Miners Federation, the Workers Industrial Union of Australia and the Australian Workers Union in protecting members against pneumoconiosis and lead poisoning has been investigated.

These studies have broadened our understanding of historical aspects of occupational illness and health. As Michael Quinlan pointed out, historians have largely neglected this field of study. Missing from this growing literature have been the voices of workers themselves. With more recent occupational health disasters such as asbestosis and mesothelioma, insights and commentary from workers directly involved have been included. But when examining events occurring almost a century ago, without workers' letters or diaries, there is a risk of hearing only the voices of those in authority. Recovering workers' stories from the Royal Commission, even with its limitations, gives some insight into how workers understood silicosis and why they

made particular choices when confronted with silica dust.

Precarious Employment and the Mining Workforce

As the twentieth century opened, the world's voracious demand for minerals fuelled an Australian mining boom that surpassed even the 1850s in the wealth it generated. Mining assumed particular significance in Queensland. In 1901 more than one-eighth of all adult males breadwinners were found among the ranks of the state's 16,375 miners. During the ensuing decade this showed little change. Gold mining provided more jobs than any other sector of the industry. In 1910 there were still 6,115 gold miners in Queensland, more than half of whom worked at either Charters Towers (2,631 underground miners) or Gympie (922 miners). Both of these fields elected two Parliamentarians?). Mount Morgan gave work to 411 gold miners. Others worked on the Croydon, Etheridge and Hodgkinson fields adjacent to the Gulf of Carpentaria. Employment here fluctuated according to the season and opportunities on the larger fields. In 1910 it was reported that most Croydon miners had recently come from gold fields 'elsewhere'. While gold mining employment declined after 1904 a boom in copper and tin mining offset this. Copper prices trebled between 1904 and 1907. These were, as Kennedy has remarked, 'palmy days for the base metals industry of North Queensland'. Copper miners rushed to find work at Chillagoe, Mount Molloy and Mount Garnett in the Cairns hinterland. Tin miners descended on nearby Irvinebank and Herberton.

Stability in mining employment masked a growing crisis. Queensland's Treasurer reported in 1910 that 'easily won and easily treated deposits are becoming exhausted, and the extraction of the ores from the deeper ground is becoming more difficult and costly'. The Charters Towers field was hardest hit. Underground employment fell from 4,285 in 1905 to 1,604 in 1912. Falling copper prices also undercut the viability of Chillagoe's mines.

As the conditions that had underpinned prosperity evaporated, life became increasingly

precarious for those who remained. Waged employment diminished rapidly. In its stead various forms of contract employment flourished. The most significant of these was tributing, a practice that had its origin in the Cornish tin mines. Tributers, who leased mines, or parts thereof, have been described by Blainey as 'aristocrats among miners. They worked in a company mine but were their own bosses, entering the mine early or leaving it early.' After paying for timber and equipment the tributer paid the mine owner a share of the gold extracted. By contrast, contractors did specified work in a designated stope or drive. Both practices were distinct from the more common practice of 'contract mining', or payment by piece-work, which has been discussed in detail by Hagan and Fisher. In exploring the displacement of waged labour with tributers on Western Australia's Boulder field, Bertola concluded that 'tributing provided companies with avenues for increasing absolutely their working profits through intensification of work speed'.

During 1909, John Mullan, one of Labor's two Charters Towers' parliamentarians, estimated that 'over 1000 miners' were tributing on the field —more than one-third of the workforce. Two years later the *Worker* estimated that tributers worked most Charters Towers mines. Another Labor Member observed: 'The tribute question was a very big one in Queensland, especially on Charters Towers and Gympie'. Elsewhere, other contractual arrangements prevailed in lieu of wage labour. Murphy, Croydon's representative, recorded that in his district 'the mines were worked principally by syndicates, and the miners were generally shareholders'. Everywhere, contractors and their employees supplemented the use of tributers. Often contractors carried out the most dangerous mining tasks. At Mount Morgan it was the contractors, rather than mine employees, who operated the machine drills.

Stoodley's study of North Queensland mining safety prior to 1900 concluded that tributers and contractors were more likely than other miners to compromise safety 'because of their eagerness to get out as much gold as possible'. The prevalence of tributers and

contractors also shaped the labour movement's response to dust and miners' phthisis. For if the dust hazard was to be eliminated the key question was: Who would bear the responsibility and cost? George Ryland, Labor Member for Gympie, brought this question to the fore when he announced in August 1910: 'There has been a difficulty as to who is liable ... there is a combination in the ownership of the mine — there are tributers, contractors, and also the owners'. This conundrum made dealing with dust and miners' phthisis a double-edged sword. If dust control were made an owner responsibility, as Labor recommended, then tributers and contractors would benefit. But if the costs fell on tributers and contractors they could become opponents of improved safety measures. The same problem was apparent with Labor's recommendation that sufferers of miners' phthisis receive workers' compensation. Tributers and contractors were, as non-employees, excluded from such benefits. In consequence, they tended to oppose the compensation of mining injuries. As Murphy noted in Croydon, where 'an accident happens' miners 'will fight the claim, because the men, being shareholders, are not entitled to compensation'. Murphy added that it was 'the same with contractors and tributers'.

The ambivalent position of tributers and contractors partially explains the muted response of the mining unions to the problem of miners' phthisis. Given that many, if not a majority, of metalliferous miners were tributers or contractors, the strength of unions such as the AWA depended on their capacity to embrace all sections of the industry. When it was suggested in 1912 that the AWA exclude those who employed five workers or less, Theodore noted that the exclusion of 'mining contractors ... would mean the loss of a great many members'. When it was pointed out that contractors at Mount Morgan 'sweat their employees', another official argued that conflict with contractors had to be avoided, as 'they did not want to fight their friends'. Given this coverage of both contractors and employees, any union call for industrial action over either dust or miners' phthisis would almost certainly have produced a fratricidal conflict. It was far safer to leave the issue to Labor's political wing.

The Establishment of the Royal Commission

The tone of the Parliamentary addresses by Labor politicians in 1909 and 1910 suggest that the issues of dust and miners' phthisis resonated widely among their electors, and that for working miners the correlation between dust and disease was self-evident. In mid-1909, Vernon Winstanley, a Labor Member for Charters Towers, informed Parliament that in his electorate there were 'many men of fifty years of age who are practically done for work, and there is no compensation for them'. Guided by such sentiments, Labor's campaign platform for the 1909 General Election included provisions for 'allying of dust'. After the election, Labor continued to argue that miners' phthisis was more common than official figures suggested. Winstanley claimed:

... out of 67 miners who have died at Charters Towers during the past twelve months, thirteen of them have died from miners' phthisis ... had all been killed on one day, there would have been an outcry from one end of the State to the other, but because they died at intervals of a month each not a word is said.

Labor proposed the enforced use of sprays on machine drills, shorter working hours, worker election of inspectors and the curtailment of all work practices that added to excessive dust. It also demanded miners' phthisis be made a compensable disease under the *Workers Compensation Act*.

The Minister for Mines assured the Opposition that the Government shared its concerns. 'The new Mines Regulation Bill', he advised, 'was one which deals with all matters mentioned'. The new Act did provide, as Labor demanded, for the control of dust 'arising from the use of rock-drilling machines' as well as that produced 'from any other cause'. However the problem, Labor realised, was in the definition of an 'owner'. The Act effectively passed responsibility for dust suppression, and safety in general, from the actual owner of the mine to

the tributer or contractor. Owners receiving a 'royalty' or 'rent' were explicitly excluded from responsibility for ventilation and dust suppression. This was transferred instead to 'the immediate proprietor or lessee or occupier of any mine or any part thereof'. The latter were also saddled with the responsibility for providing and ensuring the use of 'jets and sprays'. In addition, 'the owner, contractor, or tributer' at each mine was made liable for the compensation of any injured person.

Denouncing these provisions, Labor argued that tributers and contractors should not be burdened with the primary responsibility for safety. Winstanley informed the House that 'In most cases they are poor men ... A tributer gets a mine on tribute after it will not pay for working by the company, and in a majority of instances these men are working for less than half the usual rate of wages'. But the Government responded: 'The clause was a fair one. If the owner worked the land he was liable. If he let it on tribute, the tributers were liable.' The Government also rejected Labor's entreaties to directly bring miners' phthisis under either this Bill or the *Workers Compensation Act*. On 29 September 1910 the Government gagged debate, referring the *Mines Regulation Bill* to the Legislative Council. But, to the Government's consternation, the Legislative Council halted the Bill's passage, demanding the insertion of a clause dealing with 'tubercular disease' among miners.

If the Legislative Council appeared to share the Opposition's concern for the health of Queensland's miners, this was their only common ground. Where the Opposition attributed miners' phthisis to dust and unsafe work systems, the Legislative Council amended the Bill so that 'No person who is known to the person in charge of any mine to be affected with tubercular disease of the air passages shall be permitted to work in the underground working of any part of a mine where others are employed'. In explaining this action the Minister for Mines stated that 'this new subclause was inserted on account of the information which had been obtained ... in connection with what was asserted to be a disease called "miners' phthisis" '.

The 'information' that the Minister referred to was a series of reports and letters produced by A. R. Macdonald (Under Secretary for the Department of Mines), C. F. Jackson (Chief Inspector of Mines) and Dr Elkington (Commissioner for Health) in response to a request from Dr Cumpston, Western Australia's Royal Commissioner on Miners' Phthisis. These reports not only suggested that the incidence of miners' phthisis had been exaggerated, they also challenged the relationship between exposure to dust and the onset of the disease. Macdonald informed Cumpston that only the Inspector for Croydon had given 'any particulars with respect to the prevalence of Miners' Phthisis', pointing to 20 deaths in seven years. But he queried the veracity of such evidence, suggesting 'that it is pretty certain that Miners' Phthisis has been confounded with other things'. Jackson also concluded 'in many supposed instances of phthisis ... the occupation of mining has had nothing to do with the matter, the case being pure tubercular affection'. Dr Elkington gave these findings his medical imprimatur. Miners' phthisis was 'not a distinct disease'. Although the inhalation of dust made lung tissues more susceptible to infection, the best way to halt the disease's spread involved 'the prevention of the spitting nuisance below ground, and the exclusion of infectious consumptives from underground work'. This was the Legislative Council's strategy.

Challenging this official opinion, Labor argued that the 'information' upon which the Legislation Council acted 'was misleading'. Collins, Member for Burke, observed: 'these cases were fibrosis and not tuberculosis at all'. He pointed to the evidence of enquiries overseas and elsewhere in Australia. In Cornwall a statistical spike in fatal cases of miners' phthisis 'was due to the deaths of men who worked the rock drills'. In Western Australia, only 7.23 per cent of 'non-machine miners' suffered from 'fibrosis', as against 33.15 per cent of 'machine men'. Even those Parliamentarians unsure as to the true cause of miners' phthisis were dismayed by the proposed amendment, recognising that it would only 'victimise persons who already were sufficiently punished'. Rejecting the amendment, the Legislative Assembly declared it

'premature, as the facts as to the prevalence or otherwise of the disease in Queensland are not known, and a commission of inquiry is considered necessary before legislation'.

For the Government the dispute over miners' phthisis was most unwelcome. The Legislative Council would not pass the *Mines Regulation Bill* unless its 'tuberculosis' clause was included. The Legislative Assembly would not pass the Bill unless it was excised. A Royal Commission offered the Government a way out. The divisive issue would be left in abeyance until a Report was handed down. In the interim the Bill would be passed. Following the Premier's announcement of the proposed Royal Commission on 14 December 1910, the Bill was promptly returned to the Legislative Council. But for almost two week the Bill passed back and forth between the two Houses without agreement. Finally the Legislative Council relented, clearing the way for the establishment of the Royal Commission when it decided 'not to further insist upon their amendment'. Despite this concession the Commission's composition ensured a sympathetic appraisal of the Legislative Council's perspective. When the Commission began its deliberations two of its three members were C. F. Jackson and Dr Elkington — the very men whose reports had informed the Legislative Council's amendment. Only the Commission's Chair, William Murphy, the independent Member for Croydon, had expressed sympathy for the dissident view. As the only Independent Parliamentarian to hold a metalliferous seat, Murphy was respected by both Labor and Kidston. He was also an influential figure among northern miners. His newspaper, the *Croydon Mining News*, was widely read throughout the Croydon, Etheridge, Cloncurry, Chillagoe and Mount Garnet fields. During 1908 and 1909 Murphy had used its columns to highlight how exposure to dust threatened the health of hard-rocks miners and construction workers. In one such article he observed that 'as the quartz crystals find their way into the lungs' the affected workers were doomed 'to a painful and lingering death'.¹ (*Anything* about why he was chosen?)

¹ *Croydon Mining News* 15 October 1908, unpagged.

The Commission's Hearings: The 'extent of the evil'

The Royal Commission, charged with determining the 'extent of the evil', took oral evidence from 345 witnesses; held 102 meetings; and distributed questionnaires to 14,039 miners, 572 mine managers, 217 mill and smelting works managers, 144 medical practitioners, 42 hospital medical officers, 20 life and accident assurance companies, 8 mines' inspectors and 7 trade union secretaries.

Mining unions did little to coordinate submissions, encourage membership participation or develop policies on miners' phthisis. Thus while John Crawford, President of the Gympie Miners' Union, indicated that 'many' miners complained to the union about unhealthy working conditions he conceded that 'they never made any complaint as a Union'. While the *Worker* called upon miners to submit returns to the Commission, this call came in May; months after it began its work. Nor did the *Worker* guide miners in this task. The Secretaries of both the Gympie and Mount Chalmers miners' unions also indicated that their organizations had not discussed the exclusion from industry of those suffering from miners' phthisis. Union testimony was sometimes contradictory. Despite the contrary testimony of his union's Secretary, Crawford suggested that the Gympie union had indeed decided to support exclusion of ill miners.

Notwithstanding the lacklustre response from most union leaders, some 2000 miners provided evidence to the Commission, either by returning surveys or by testifying in person. Their testimony portrayed the hazards of mining life in remarkably common ways. John Weightman, Secretary of the AWA's Mount Chalmers branch, described how miners' phthisis 'takes hold of strong men, and they fail in a few years'. His story was not isolated. Seventy-one per cent of working miners believed metal mining was an unhealthy occupation. In contrast, only thirty-seven per cent of mine managers agreed. The Manager of Pfeiffer's Day Dawn Gold Mine at Charters Towers stated he had 'never heard any man say he left us because he had

dust on the lungs’.

The discrepancy between employer and employee narratives might have reflected social divisions that precluded managers from first-hand experience of sick miners. Equally, it could have indicated an awareness that to acknowledge the harmfulness of mining was to raise the question of why more had not been done to prevent lung diseases. Some employers located silicosis in workers’ genetic predisposition (can this be given a less anachronistic formulation?) or their poor personal hygiene. Workers were more likely to locate it in dust from mining equipment like rock drills; mining practices such as rising, returning to the shaft too soon after blasting, and shovelling dry ore; and in matters such as the contract system and working hours.

Many miners identified rising, where ore or rock was excavated from overhead or where a shaft was excavated upwards, as hazardous. Employers acknowledged that miners were ‘looking up all the time, and ... must inhale the dust’. But, as one explained, rising ‘might be done away with in many instances if the matter of cost was not taken into consideration’. The General Manager of Charters Towers’ Brilliant Extended Gold Mine objected to replacing rises with winzes, which were small shafts sunk from a level or between levels, because, although they produced less dust, winzes were more expensive and slower to excavate than rises.

Miners also identified blasting all through the shift as a contributing factor to silicosis. Many felt they were sent back to work before the dust and fumes had settled. Employers and shift bosses were more likely to dispute this, arguing that workers were given adequate time to let the dust settle. Frederick Knowlton, a rock driller from Mount Chalmers, called for ‘a stipulated time for firing throughout the mine’. Currently, ‘they fire at all times, and there are clouds of dust and smoke continuously coming up into the upper levels’. Contracting and tributing were also criticised because miners on contract were less likely to let the dust and

smoke settle before returning to work. According to one miner, contractors drove their workers 'harder than the mining companies do'.

While no reliable statistics on the incidence of silicosis and tuberculosis in Queensland metal miners exists, workers' stories of sickness and death probably more closely reflected the reality of life in mining communities than those of employers. Fourteen years after the Royal Commission 151 children under the age of fourteen had parents receiving a miners' phthisis allowance under the *Workers' Compensation Acts, 1916-23*.

The Commission's Hearings: To 'modify the evil'

The Commissioners were also charged with recommending ways to 'modify the evil' of lung disease. John McCarthy, a Mount Chalmers miner, expressing the thoughts of many of his colleagues said it was 'caused simply by using the rock drills and boring dry holes. There ought to be a regulation making it compulsory to use water jets.' In fact, when asked by the Commissioners for recommendations to improve conditions 46 of the 59 working miners (77.9 per cent) from whom suggestions were requested had proposals for improving ventilation and the using water. By contrast, only 13 of the 23 employers (56.5 per cent) had any recommendations. While all doctors interviewed confirmed that metal miners had a higher incidence of lung diseases than general labourers, some specifically identified rock drills as a menace.

When the discourse on the use of sprays and jets is deconstructed, a variety of contested views are revealed. A number of employers had installed sprays but said miners either would not use them, or broke them. Employers interpreted this as perverse behaviour, laziness or carelessness. In contrast, workers were more likely to identify equipment failure or time pressures as the reasons for not using the sprays. John Dash from the Amalgamated Miners Association explained that miners not have time to put water jets on their drills.

By 1900 rock drills were linked to death and disease of metal miners around the world. One type of drill, the air-feed stoping machine, was even called 'the widow maker' by miners. In response, a variety of water devices were marketed. The most notable was the American Leyner drill, which had automatic feed allowing water and air to pass through the drill steel itself. Other appliances were merely attachments for dry drills coming in the form of sprays, atomisers and jets. They were less effective but cheaper. Water, drawn via a hose from a bucket; was forced through a nozzle by compressed air. 'The miner had to work closely with his machine, and as the spray made a wide discharge of water it was difficult if not impossible to keep dry.' Jets directed a stream of water by a hand-held hose, attached to a water supply, into the hole being bored. However, mud produced by jets sometimes clogged the drill.

Given this, workers' refusal to use anti-dust devices can be contextualised. First, miners frequently advocated the installation of water pipes underground as an alternative to toting heavy buckets of water. At the Brilliant Extended Gold Mine shovellers carried water in kerosene tins and sprinkled this on the ore. The general manager admitted they only did this about half the time but dismissed the notion that water pipes should be laid on instead. Many Peaks mine had twelve Holman sprays, requiring a 'rather a fine adjustment'. The company provided 'pails and everything else', but, according to the manager, 'the miners had a decided objection to carrying a few tins of water about, and they practically refused to use the sprays'. More tellingly, he admitted that while the miners were on wages 'there was no difficulty; but immediately they went on to contract they would not use the sprays'.

The debate over water revealed tensions between controlling production costs and protecting workers' health. Metal mining areas were predominantly in the north-west, a region lacking a good water supply and often affected by drought. Consequently, mining, crushing and smelting were at times hindered. Spraying to allay dust required the installation of tanks at each level underground or a water supply on the surface and as Ravenswood manager explained,

'we have no town water supply. It would mean laying big lengths of pipes into the stopes, and that is going to be an expensive thing.' That Leyner water drills required over 670 litres per drill per shift may explain why few were used here.

When asked if it would be economical to have the best possible working conditions in order to get the best returns from miners, Manager George Richard answered: 'Yes, if you have the capital'. But many older gold mines did not have the capital. Yields were declining. The price of gold was fixed by the gold standard, and transport costs were high given the remoteness of the mining fields. Installing water pipes would substantially increase overheads. Some managers also believed miners would be careless if water was in ready supply. The manager of Charters Towers' Stockholm Gold Mine said the men 'would let [it] pour all over the place if you had it in the stope ... Miners are very careless as a rule.' It was this narrative of worker carelessness and indifference that the Commissioners embraced to explain why miners failed to use sprays and jets.

Apart from water, miners frequently called for improved ventilation. Most metal mines relied on natural, rather than mechanical ventilation, leaving them far behind coalmines in ventilation technology. However, high surface temperatures in North Queensland impeded the physics driving the air exchange central to natural ventilation. Also, when the underground workings were extensive the air tended to 'short circuit at every opportunity, without going to ventilate the workings where desired'. Added to this, tributers, who had to pay for the mullock to be hauled out of the mine, sometimes dumped it into passes and blocked ventilation. Dianne Menghetti noted that in Charters Towers, 'as late as 1912, when there were twenty shafts between 1,500 and 3,000 feet deep on the Brilliant and Day Dawn reef systems, their aggregate area of unimpeded downcast was only 123 square feet'.

The Commission's Findings

The Commissioners noted that dust was produced underground by rock drilling, blasting, and trucking and shovelling broken ore and mullock. Surface workers were exposed when handling, moving and crushing dry ore and rock. They identified dust as the cause of lung damage, predisposing workers to tuberculosis. But they believed that in the absence of tuberculosis, fibrosis alone was 'of relatively little direct import so far as a risk to life is concerned'. From 1906 to 1910 the death rate from lung diseases per 10,000 living miners in Queensland was 42.2, compared with 53.9 in Western Australian miners from 1900 to 1909 and 191.6 in Bendigo miners in 1905 and 1906. While acknowledging that their data was limited, the Commissioners nevertheless concluded that Queensland miners had a 'relatively low death rate from lung diseases'.

Mine owners were seen as doing their best to control the dust problem, while miners were portrayed as obstructing management's dust abatement efforts. They frequently spat at work, a habit that could spread tuberculosis, and drank alcohol, which the Commissioners claimed made them susceptible to this disease. The Commissioners also concluded that the *Mines Regulation Act, 1910*, if strictly enforced, would adequately protect miners although they recommended making it obligatory for all mines to supply clean water, not just those mines with a ready supply. As for blasting, the Commissioners were satisfied with provision of the Act allowing for half an hour to pass between firing and returning to work unless the dust settled sooner or miners wore respirators. They were felt the Act adequately dealt with the provision for proper ventilation, with the exception of Charters Towers, where they advocated further inquiry and the establishment of a special board.

While the Commissioners acknowledged an increased incidence of tuberculosis among miners, they did not believe it was a serious problem. However, they declared that it could become one in the absence of state intervention. Two principal remedies were proposed. First, in accordance with the Legislative Council's earlier recommendation, they advocated the

exclusion 'of persons affected with pulmonary tuberculosis'. To achieve this they supported compulsory medical screening of both new and current miners. Secondly, they recommended monetary compensation for 'men excluded from underground employment in their own interests and in those of the men associated with them'. No immediate steps were taken to implement these recommendations. But their legacy was considerable.

The Commission's Legacy

If the holding of the Royal Commission was, in large part, the product of Labor's campaign for a new approach to occupational health in mining, its Report represented a major setback for this perspective. Lung disease among miners was still largely attributed to the workers' themselves. Exclusion of the afflicted and some form of monetary compensation were portrayed as the major strategies for dealing with sufferers. Even the *Worker* reported in July 1911 that: 'The Commission is forced to the conclusion that the miners themselves, either through ignorance or neglect of the laws of hygiene, are responsible for a vast amount of preventable disease'. No editorial caveat was rendered on this observation. In Parliament, Labor's crusade went into virtual abeyance. Further progress, one Labor representative remarked, could not be expected until 'the advent of a more humane Government'.

It is probable that Labor's reluctance to continue the fight reflected more than simple despondency as the Labor leadership reassessed its strategic position. As Fitzgerald observes, in late 1910 mining employment in north Queensland 'had fallen considerably' and 'the AWA's traditional source of members was drying up'. By 1913 there were only 2,712 underground gold miners left in Queensland - less than a third of what there had been at the century's dawn. In Charters Towers less than a thousand continued to ply their trade. With miners abandoning the industry, Theodore and the AWA shifted their attention to the sugar industry, waging a bitter but eventually successful campaign to organise sugar workers throughout 1911. Even mining MPs

such as Ferricks, Collins and Mullan were mobilised, touring the camps of striking sugar workers, many of whom were ex-miners. In this new industrial climate the health concerns of hard-rock miners no longer assumed its former electoral significance.

As miners waited for the promised Labor Government there is no reason to suppose that there was any diminishment in the number falling ill from dust exposures. The burden for supporting former miners and their families fell heavily on the local branches of the Australian Workers Union - the body that represented most hard-rock miners after 1913. In August 1915, for example, the Health Committee of the union's Mount Morgan branch provided relief for 52 adults, 34 of whom were widows, as well as 65 children. All were left destitute as a result of miners' phthisis. The Health Committee also worked with the local Labor Member, James Stopford, to gain special payments from Queensland's Home Secretary.

Given the legacy of suffering left by miners' phthisis, the Ryan Labor Government's *Workers Compensation Bill*, introduced during August 1916, was greeted with interest. But expectation was met with disappointment. Observing there was no mention of miners' phthisis, William Murphy, the Royal Commission's former Chair and the then Member for Burke, challenged the Minister, J. Fihelly. Fihelly simply replied that 'they would deal with it at a later time'. Publicly embarrassed, Fihelly was back with a *Workers Compensation Amendment Bill* on 15 December 1916. This made 'better provision in respect of certain industrial and mining diseases'. Particular attention was given to 'silicosis' and 'miners' phthisis'. Fihelly explained the Government's change of heart by noting that 'facts were brought directly under my notice by mining Members sitting on this side of the House'. Commenting on the new provisions, James O'Sullivan, a veteran mining Member, declared: 'This is a great measure of improvement ... the workers have come into their own'.

Despite O'Sullivan's endorsement the new provisions were framed within the parameters of the Royal Commission's findings. The starting premise, as the Minister noted,

was that it was 'well known that many persons are particularly susceptible' to miners' phthisis. In order to prevent the disease's spread the Government intended, from 1 January 1917, to medically screen all men 'going into the industry' to ensure that they were not 'predisposed towards the disease'. Those 'likely to develop the disease could take on other occupations'. To be eligible for compensation those too ill to work had to be 'a worker at the date of death or incapacity'. This clause excluded tributers and contractors. It also left without succour miners who had left the industry. Even those deemed eligible for compensation the maximum personal benefit was £1 per week up to a maximum of £400. It is evident that financial considerations were foremost in the Minister's mind. By excluding the 'susceptible', he emphasised, they were ensuing 'a protection of the fund'. It was evident that the radical idealism that had once inspired Labor's approach to occupational health was a thing of the past.

Conclusion

Dr Irving Selikoff, a leading expert in asbestosis and silicosis, once described silicosis as 'a social disease with medical aspects'. Nowhere was this more apparent than in Queensland during 1909-11. Decisions by government, public officials, political and industrial organizations and mine owners, meant that an opportunity to reduce silicosis was wasted. Shifting health and safety responsibilities from mine owners onto tributers and contractors guaranteed that little would be done to improve working conditions. As many testified to the Commission, time pressures made it less likely contractors would use jets or sprays, and more likely they would send workers back too soon after blasting. Allowing companies to continue with rising and refusing to regulate firing times aggravated the situation. Ultimately, Queensland governments adopted the conservative approach of other Australian states by excluding sick workers without fundamentally changing the conditions that produced their disease. Almost lost in this discourse on silicosis have been workers' narratives, generated by their daily experiences in the workplace and mining communities. But, an examination of the transcript of the Royal

Commission, which brought together stories that shaped workers' understanding of miners' phthisis, reveals a far-sightedness that surpassed that of their employers and those in authority.