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The Mine at Baryulgil: Work, Knowledge, and Asbestos Disease

Jock McCulloch*

In the period from 1945 until the mid-1970s Australia was a major consumer of asbestos products. Today Australia has one of the world's highest rates of asbestos disease. Local manufacture was dominated by James Hardie Industries which also operated a small chrysotile or white asbestos mine at Baryulgil in northern New South Wales. James Hardie has always claimed that the working and living conditions of its Aboriginal employees were good. However, internal company correspondence and the testimony of miners suggest otherwise. Hardie's refusal to protect its workers from a known risk contributed to a high level of occupational morbidity and mortality, as did ineffective state regulations, the non-union nature of the Baryulgil workplace and the community's isolation.

Throughout the twentieth century the Australian asbestos industry was dominated by a single firm: James Hardie Asbestos Pty Ltd. The company, which was founded at the end of the nineteenth century, was one of the first to realize the potential of asbestos cement products. In 1916 it opened the Camellia factory near Sydney to produce building materials.¹ Over the next decade further plants were opened in Perth, Adelaide and Melbourne. Sheltered by tariff barriers and aided by government contracts, James Hardie soon developed into one of the country's most successful businesses. In New South Wales (NSW), Hardie supplied asbestos cement products to the Housing Commission, the Metropolitan Water, Sewage and Draining Boards and numerous Shire councils.² Between 1945 and 1954 more than half of the new homes built in NSW were made from Hardie's asbestos cement sheets.³ Largely because of the company's success in manufacture and marketing, in the three decades after 1945 Australia was the highest per-capita user of asbestos in the world.⁴ As a result, Australia now has the world's highest recorded incidence of mesothelioma, the most deadly of the asbestos diseases.

One of the less well known aspects of James Hardie's history concerns a small mine at Baryulgil in northern NSW. The mine, which employed an Aboriginal workforce, was operated by the company from 1953 until 1976. The work and living conditions at Baryulgil were in some ways just as harsh as those endured by black miners in South Africa under apartheid. As a result, the history of Baryulgil can serve as a window onto one of the most lamentable stories of occupational risk in an Australia workplace during the post-war period.

The Industry and the Firm

The global asbestos industry was vertically integrated. From the beginning of the twentieth century the larger US and British manufacturers of asbestos-based products, such as Johns-Manville and Turner & Newall, operated mines in Canada and Southern Africa to provide fibre for their metropolitan factories.⁵ The industry's peak in Western Europe and North America coincided with what some economists⁶ have called the 'golden age of capital' (1945-72) and, in that sense, asbestos is an exemplar of modern industrial production and its attendant global divisions of

labour. Unfortunately, asbestos causes three life-threatening diseases, namely asbestosis, lung cancer and mesothelioma, a primary cancer of the lining of the lung or the abdominal cavity.⁷ Recent estimates put the eventual number of fatalities world-wide from the three diseases at in excess of five million.⁸

James Hardie differed from Johns-Manville and Turner & Newall in that it bought most of its fibre from outside sources.⁹ However, from 1955 it did have a share in the chrysotile or white asbestos mine at Cassiar in British Columbia¹⁰ as well as operating the mine at Baryulgil. In contrast to Cassiar, Baryulgil was small. There was never more than 40 in the workforce.¹¹ The fibre yield was poor and at its peak Baryulgil produced only 400 tones of chrysotile a year, or less than one per cent of James Hardie's needs.¹² Rarely did the mine make a profit.¹³ Despite its lack of size, Baryulgil had strategic importance: the mine gave James Hardie a seat on the inquiries run by the Tariff Board which controlled duties on imported asbestos. It also provided a back up in case of a disruption of supplies from overseas.

Until 1970 Baryulgil was the only asbestos mine in eastern Australia and it was staffed by Aboriginal workers living on traditional land. In the late 1970s there was an exposé by the ABC journalist Matt Peacock of the harsh work conditions at the mine.¹⁴ During 1983-84, through the efforts of the community supported by the Aboriginal Legal Service in Redfern, Baryulgil was the subject of a Parliamentary inquiry. It remains the only inquiry of its kind into asbestos mining.¹⁵ During that 1983-84 Inquiry, James Hardie presented a picture of a safe work environment. The company claimed to have made every effort to reduce work hazards at Baryulgil, and even adopted dust thresholds far in advance of the recommended standards.¹⁶ Safety equipment, including respirators, was made available and workers were instructed in its use.¹⁷ According to the company, the plant was well maintained and any problems were the result of breakdown or operator neglect. James Hardie was adamant then (and remains so today) that there has never been a case of asbestos disease at Baryulgil.

The 1983-84 Inquiry followed a tide of litigation that had begun in the US in mid-1970s. A flood of law suits saw the major producers, including Johns-Manville and Raybestos-Manhattan, take refuge in bankruptcy and subsequently reinvent themselves as non-asbestos companies. To protect itself, in 1976 James Hardie sold Baryulgil, and gradually phased out asbestos from its domestic products. Like Johns-Manville, it managed a successful transition and by the 1990s its subsidiary, Amaca Pty Ltd, had become a market leader in the US building materials industry. But it was not so easy for James Hardie to escape its past. On average, James Hardie consumed 70 per cent of the fibre used annually in Australia.¹⁸ Recent estimates put the liability for asbestos disease in Australia at around \$A6 billion, of which the major share is attributable to James Hardie.¹⁹ In early 2001 Hardie's management shifted its headquarters to The Netherlands and transferred ownership of Amaca Pty Ltd to a second subsidiary, thereby creating a veil between the parent company and litigants. During that restructuring James Hardie assured the NSW Supreme Court that it would, if necessary, make available up to \$A1.85 billion to cover its liabilities. In fact the company left only \$A293 million in its Medical Research and Compensation Foundation for future claims.²⁰ James Hardie also failed to inform the NSW or Federal governments about the shortfall. As major users of asbestos insulation in trains, power stations and ships, those governments also face a massive future liability.

As the result of protests by trade unions and victims groups, in March 2004 the NSW government established a Commission of Inquiry into James Hardie's conduct.²¹ In his final report the commissioner, David Jackson, found that Hardie's chief executive had misled the stock exchange about the company's asbestos liabilities being 'fully funded'. Jackson also found evidence that Hardie's management had engaged in deceptive conduct which might justify civil or criminal proceedings. Following Jackson's report, the company entered into negotiations with trade unions and the Asbestos Diseases Society. As a pre-condition for a settlement, James Hardie's new chair, Meredith Hellicar, asked the NSW premier, Bob Carr, to guarantee immunity for herself and other senior executives from criminal prosecution.²² Carr left office before an agreement was negotiated and it remains to be seen whether criminal charges will be laid. During negotiations, James Hardie argued that while it was the joint or sole owner of the Baryulgil mine, the operating company, Asbestos Mines Pty Ltd, was never under its control and that it would therefore not include the Baryulgil community within the terms of a settlement.²³ The history of the mine and, in particular, the working and living conditions endured by the Aboriginal workforce reveal why James Hardie has never been comfortable in talking about Baryulgil.

The Baryulgil Mine

The Banjalang of Baryulgil first came into contact with Europeans in 1840 when Edward Ogilvie established a pastoral empire along the banks of the Clarence River. Ogilvie, who employed Aboriginals on his station, which he named Yulgibar, learned the Banjalang language and is credited with producing its first written grammar.²⁴ At its height Ogilvie's empire employed well over 100 Aboriginals as stockmen and domestic servants. For the Bundjalang, work at Yulbilgar meant that the community could continue to live on traditional land without being subject to the authority of a white reserve manager.²⁵ However, Ogilvie's empire barely survived his death and the property was gradually reduced in size. By the first decade of the twentieth century Yulgibar was a run of less than 50,000 acres. With the decline of Yulgibar, young men began leaving the district in search of work and by 1943 the official population of The Baryulgil Square was fifty-three.²⁶

In 1918 chrysotile was discovered less than a mile south-west of The Square and a small quarry was opened.²⁷ Between 1918 and 1924 it produced 2,500 tones of fibre. In 1940 Wunderlich Ltd began re-developing the site.²⁸ In 1943 a mill was installed and with it came further improvements in output. In the following year James Hardie, which was anxious to secure a local source of fibre, entered into a partnership with Wunderlich and the Asbestos Mines Pty Ltd. was formed. In 1953 the James Hardie group purchased Wunderlich's share and from then until 1976 Asbestos Mines Pty Ltd was a wholly owned subsidiary.²⁹ From 1976 until its closure three years later, the mine was owned by Woodsreef Mines Ltd.

Ken Gordon was 13 years old when he started work in 1946 as a 'billy boy' supplying the miners with tea and water. At 15 he went into the quarry to work on the skips.³⁰ The mine had benches running down both sides of the pit. Drilling was done with jack hammers while explosives were used to dislodge rock from the workface. Following blasting the quarry filled with dust, and it was usual for the miners to re-enter the site before the dust had settled.³¹ Ore the size of kitchen

tables was broken up by hand. The work was hard, with shoeless men using 14lb sledgehammers in summer temperatures of 40° celcius.³² The richer ore was placed in skips and drawn by horses to the mill.

At the mill the ore was emptied into a crusher, then processed before the fibre and dust were drawn off by exhaust fans. At the end of each day, the fibre was shovelled by hand into hessian bags. The bagged chrysotile was then trucked along the unsealed road to the railhead at Grafton, some 50 miles away. The mill itself was cramped and all the crushing and separation was carried out within a single building. One of the permanent hands would sweep dust from benches, floors and walls. The men employed in the bagging section, Andrew Donnelly, Harry Mundine, Benjamin Oba, Richard Mundine, Albert Priest and Joe Waghorn, all died prematurely.³³

The fibre was handled manually throughout milling, storage and transport. The hessian bags were porous and often split, thereby making haulage of the product hazardous. Many of the bags used at Baryulgil were re-cycled from the Camellia factory and often contained residues of asbestos. Bill Hindle, who worked as a fitter, recalled that the bags carried the initials EGNEP which referred to the Penge amosite or brown asbestos mine in South Africa. There were also bags from Wittenoom, which contained crocidolite or blue asbestos.³⁴ Bill Hindle himself died from mesothelioma in December 1984.³⁵

The prospect of regular work attracted Aboriginal men from as far away as Brisbane and Cherbourg. The only other work available at that time was on cattle stations but station work is seasonal whereas the mine ran the whole year round. The mine also gave the men access to skilled industrial work. They operated jack hammers, and worked as mill hands, powder monkeys, and as drivers. They did repair work on the machinery and they laid the benches in the quarry. Aboriginal men built the new mill that was opened in 1958. Apart from the manager and the fitter, no European stayed for any length of time.³⁶

Baryulgil was a company town run by one of Australia's largest corporations, yet houses at The Square were built by the miners and their families. During the 1950s, a typical house consisted of one large room with a bed, a table and a lamp. The walls were fashioned from flattened kerosene tins and the floors were made from ants' nests which were crushed and wetted to form a rock hard surface.³⁷ There was no electricity or running water, and no sewerage. The women would wash recycled asbestos bags and make them into floor coverings and bedspreads.³⁸ Bags were also used to keep out the wind and rain. In the late 1950s families at The Square purchased second-hand cement sheets from Grafton and the housing was gradually improved. There was no medical care and for many years a local woman, Mrs Lucy Daley, acted as a midwife.³⁹

Water was a problem at Baryulgil as the creek would alternatively flood or run dry. Most washing was done at the creek, and the women would spend a whole day heating up water over an open fire.⁴⁰ There were no cars until the early 1960s. The dirt road to Grafton was at times unpassable, thereby further isolating the community. The general store at The Square was run by Yulgilbar station and there was a mail delivery each week. Bush tucker was a major part of the diet. Men and women trapped echidnas, possums, goannas, and kangaroos. They also caught fish and turtles in the Clarence River.

Linda Walker was born at The Square in 1935. Her father was one of the first men to work on the mine. As a child Linda played in the mill and she recalls that the

dust was so thick she couldn't see more than a few feet.⁴¹ The wages were low and life was hard. Linda's parents built their own house at The Square with timber from the bush. But the community had more freedom than did Aboriginals who lived on the nearby reserves of Mulli Mulli and Tabulum. Linda used to roam everywhere and in some ways she had an idyllic childhood. The people got on well with the graziers who let the children dive for turtles in the river. Linda left school at 14 to help her mother with housework. The major threat to families came from the NSW government policy of forcibly removing children. Mothers warned their children to hide in the bush whenever the Aboriginal Protection Board truck came.⁴² Linda Walker's cousin, Pauline Gordon, was on the street in Grafton with her brothers when she was taken by the Board. The boys were sent to Kingela Boys Home, near Kempsey, and the girls were shipped 200 miles away to the Cootamundra Girls Home. Some parents never saw their children again.⁴³

The Dust

The methods of mining asbestos have varied over time and place – from quarries to deep shafts. However, the aim of processing fibre is always the same, namely to preserve the mineral's physical properties. For that reason asbestos is milled dry and the process creates dust. Asbestos mines in Southern Africa, Canada and Australia were always hazardous. Dr Peter Elmes, the consultant physician with Turner & Newall, lamented in 1987:

By the nature of their operations mine and mine mill operators find it harder than the user industries to meet agreed international standards and consequently are at risk from the environmental lobbies.⁴⁴

The most hazardous jobs at Thetford (Canada), Wittenoom (Western Australia), Penge (South Africa), Shabanie (Zimbabwe) and Baryulgil (NSW), were in the bagging rooms.⁴⁵

The Baryulgil mill was always dusty. There was no mechanical ventilation in the Old Mill, which operated until 1958. As the former manager, Jerry Burke, told the 1983-94 Inquiry: 'When you walked in it was impossible to see anywhere. Even the operator standing beside you was practically invisible'.⁴⁶ An Aboriginal miner named Bill Harrington recalled that after each day's work: 'Your skin was still white. You would wash it off and you would go like that afterwards and you would be a black fella walking along with a big white streak'.⁴⁷ There were no showers and the men washed in the creek. According to Bill Hindle, the New Mill was intended to produce better quality fibre. But when the mill opened production levels were increased so that many of the problems found in the original plant were reproduced. Little attention was paid to containing dusty areas or sealing off trouble spots.⁴⁸ Apart from the dust, the work was made difficult by the heat and noise. When Jerry Burke complained to head office he was told that because the mine had a short life, management was unwilling to spend the necessary \$70-80,000 on a dust extraction system.⁴⁹ At no time did James Hardie issue a warning to the miners about the hazard. Jerry Burke first learned of the danger in 1974 by reading *The New Yorker* magazine.⁵⁰ Linda Walker's father had not heard the word 'asbestosis'. According to her, none of the miners had.⁵¹

The Square was less than a mile from the mill and the prevailing wind blew dust and fibre over the town, covering the gullies and the creek banks in white powder. According to Jerry Burke:

The mill generated a lot of dust, you could see it in the sun of an afternoon the dust going out towards the north west. This took it over my house and then over towards The Square and all towards Yulgilbar station area.⁵²

Rodney MacBeth, an organiser with the Australian Workers Union (AWU), who first visited the mine in 1974, remembers that the town was covered in a white shroud. 'The dust even on still days emanated from the treatment works and settled on everyone and everything in the vicinity.'⁵³ MacBeth knew nothing about asbestos disease. When questioned at the 1983-84 Inquiry as to whether he worried about the dust MacBeth replied:

Yes, to a certain extent, but when you approached the place on a still day there was always a haze about. To be quite candid the same thing applied to cement works.⁵⁴

Everyone in the community was at risk. The miners returned home at the end of each day with their clothes covered in fibre. Before washing, the women used to beat the clothes on a tree.⁵⁵ There was also contamination from the mill waste. The district has a high rainfall and the ground tends to become soggy. To absorb the water, tailings were spread about The Square several times a year.⁵⁶ Tailings were used around the houses to level the ground and encourage the growth of grass. The dump adjacent to the mine was a playground for the children, and tailings were used at the School as jump pits.⁵⁷ The waste was transported in the company truck, a practice that continued until 1977. A study conducted a year after the mine closed found heavy pollution at The Square. According to the report: 'There is no doubt that the residents of Baryulgil are currently being exposed to highly undesirable levels of asbestos dust'.⁵⁸

James Hardie had a reputation at Baryulgil as a bad employer. There was no trade union presence until the late 1960s when most of the miners joined the AWU. Rodney MacBeth would occasionally visit the mine to secure enrolments and mediate disputes with management.⁵⁹ Wages at Baryulgil came under the Metalliferous Miners (Open Quarry) Award and although the quarry was over 100-feet deep, according to MacBeth the company never paid 'depth money'. Neil Walker, who worked as foreman, did not receive the above-award payment to which he was entitled.⁶⁰ Both Neil Walker and Cyril Mundine, who worked at the mine for many years, were sacked for taking long service leave.⁶¹

Warwick Sinclair, a former claims officer with the AWU, recalled a problem at the mine in 1962.⁶² An AWU officer had come across an Aboriginal community living in harsh conditions. The miners were being underpaid and they were afraid to join the union. The AWU decided to take action on the miners' behalf even though they were not union members. Sinclair visited the James Hardie head office in Sydney and after some consultation the company sent the AWU a cheque for \$300, which was back pay for 30 men for 12 months. Although the underpayment had been going on for far longer, it was not possible to seek compensation for more than a one-year period. Sinclair never forgot the heat, the dust and the 'indescribable poverty' he saw at Baryulgil.

During the 1983-84 Inquiry James Hardie emphasised its role as a good employer. Despite the mine's lack of profitability it persevered with Baryulgil in order to preserve jobs for the Aboriginal workforce.⁶³ There were in fact other reasons why the company kept the mine open. Because it operated Baryulgil, James Hardie was entitled to a seat on Tariff Board inquiries into the asbestos industry. That allowed the company to resist the imposition of duties on imported Canadian and South African fibre upon which its factories relied, while enjoying the protection of a 25 per cent tariff barrier on imported asbestos products.⁶⁴ In 1954 James Hardie's major competitor, the Colonial Sugar Refinery (CSR) instigated a Tariff Board inquiry into asbestos imports. CSR was keen to find a local market for the fibre from its Wittenoom mine and it proposed a 40 per cent protective tariff on imported fibre. As the dominant local manufacturer, James Hardie was CSR's most likely customer, and it hoped to force Hardie to buy its crocidolite. James Hardie's managing director, John Adamson, told the inquiry that overheads were high and in the case of asbestos cement sheets raw materials amounted to 65 per cent of the costs of production.⁶⁵ In 1954 James Hardie imported 26,000 tons of fibre costing £2.09 million. The imposition of the tariff demanded by CSR would have cost Hardie £693,000 a year.⁶⁶ James Hardie won the case and continued to import cheap fibre from South Africa and Canada.

The State

Various government departments, most notably the NSW Department of Mines, shared responsibility for Baryulgil. Until 1964 there was no asbestos legislation in NSW. As a result, Baryulgil fell under *The Mines Inspection Act, 1902*. That act required inspectors to notify owners of any hazard and specify the measures necessary for its remedy. The legislation refers to the provision of exhaust ventilation and respirators, the vacuum cleaning of workroom surfaces, the use of wet brushes in sweeping floors and benches, and the instruction of workers on occupational safety. There is also reference to showers, lockers and lunch rooms. The code allowed for the periodic testing of work areas and regular medical examinations.⁶⁷ The NSW asbestos regulations of 1964 set a statutory limit for dust of five million parts per cubic foot. With the introduction of the membrane filter method in January 1973, the standard was changed from dust particles to fibre numbers and from that date the limit was set at four million fibres per millilitre. In March 1978 the standard was lowered to two million fibres per millilitre.⁶⁸ Whatever the system of measurement, visible dust always signified a hazard.

In all, Department of Mines officers made some 90 visits to Baryulgil in the period from 1948 until 1979. While their reports contain ample evidence of a serious hazard, the mine was never closed and there were no protests from the Department about conditions. From 1970 the Division of Occupational Health within the NSW Department of Health, carried out dust and fibre counts at the request of the Mines Inspectorate. The final government authority to share responsibility for Baryulgil was the State Pollution Control Commission. The Commission, which was established in the early 1970s, played a passive role. For example, it issued the mine a licence in April 1977 without its officers ever having visited the mine.⁶⁹

James Hardie is a large company and there was a formal chain of command between head office and Asbestos Mines Pty Ltd. The local manager reported

directly to the technical director and decisions about work conditions were made in Sydney. Day to day decisions were the responsibility of Frank Page who was a member of the boards of Asbestos Mines Pty Ltd and James Hardie. Page paid frequent visits to Baryulgil.⁷⁰ Items involving capital expenditure were discussed at board level. Such decisions were also discussed with the Industrial Hygiene Section and the Environmental Control Committee.⁷¹ James Hardie had its own industrial hygiene unit at Camellia which monitored dust levels at the company's factories and issued directives to branch managers, including the manager at Baryulgil. From the late 1960s, samples of dust from the mine were sent to Camellia, where they were examined by the senior technical officers, Mr J. Winters and Dr S.F. McCullagh. The annual X-ray program initiated in that period was co-ordinated by Dr McCullagh. From the early 1970s there was close consultation between the company, the Mines Inspectorate, and the NSW Health Commission. By the company's own admission, it always led government authorities in the adoption and use of sampling techniques.⁷² In that sense James Hardie resembled its major British and US counterparts.⁷³

The Department of Mines always took a conciliatory attitude toward conditions at Baryulgil. Its annual report for 1946 refers to the mill, which was supposedly 'being redesigned and particular attention is to be paid to the suppression of dust'. It also mentions 'new dust trunking throughout the mill' and to 'new huts for mine workers that are in the course of construction'.⁷⁴ No such work was ever carried out. Inspections conducted in 1948 and 1952 found high dust counts yet the Mines Inspectorate took no action.⁷⁵ An inspection report from March 1960 refers to the bagging section as dirty and the inspector commented on the absence of respirators.⁷⁶ Again, no action was taken. An inspection in August 1972 revealed a serious dust problem. The report noted: 'All areas except those outside the plant show fibre counts above the statutory 4 fibres per cubic centimetre'.⁷⁷ No notice was issued. The same failure followed an inspection in October 1973 when an officer reported:

The exhaust at the top of the mill continues to emit a constant stream of dust like a dry wood fire ... the use of hessian bags makes handling of the product a large source of dust.⁷⁸

The Department of Mines' failure to regulate Baryulgil is not difficult to explain. The mine was small and isolated and before the opening of Barraba in 1970 it was the only asbestos mine in NSW.⁷⁹ Its workforce was Aboriginal and there was no trade union presence. The Department had little expertise in dealing with such a workplace and it was hampered by a lack of trained staff. The Mines Inspectorate also lacked political will. James Hardie was a powerful company with major government contracts. It is likely that the Department of Mines did not want conflict over such a small operation and so it placed its faith in James Hardie to remedy any hazard.

Whatever the Inspectorate's intentions, the regulatory process was corrupted. The mill was always slowed down and the area watered whenever inspectors were due.⁸⁰ Robert Marshall, Chief Inspector of Mines, told the 1983-84 Inquiry that it was normal to forewarn the manager of impending visits in order to maintain good relations with Hardie: 'If we adopt the policy that nobody is to be notified, it is going to create a few hassles', he said.⁸¹ Dr Francis, from the Department of Health, recalled:

In the test we did in 1972 when I was there it was obvious that the place had been washed down. The mill, for instance, was wet. The ground was wet. There was no secret made of it. It was quite obvious that it had been hosed down.⁸²

According to James Hardie, the clean ups were simply a matter of etiquette, or 'good housekeeping'. At a mine, just as in a suburban home, it is usual to clean up before the arrival of visitors.⁸³

Disease, Death and Denial

In pursuing legal action against employers the victims of asbestos disease face various obstacles in proving the cause and extent of their disability.⁸⁴ Asbestosis is a particularly insidious disease which is difficult to diagnose and whose symptoms are often masked by secondary infections such as bronchitis. The general poor health of the Baryulgil community has further obscured the extent of occupational disease. The health status of Aboriginal people in rural NSW was the subject of a report released during the 1983-84 Inquiry. It gives the life expectancy at birth for an Aboriginal male as 48.1 years, and between 55 and 57 years for a woman.⁸⁵ Those figures mean that many miners would have died of other causes before asbestos disease became visible.

James Hardie has always maintained that miners were never exposed to a serious hazard, and that there has been no asbestos disease at Baryulgil. Any illness at The Square, it has claimed, is simply characteristic of Aboriginal communities.⁸⁶ Yet the Baryulgil people were living on traditional land largely independent of outside interference, and there was employment. One would expect their health to be superior to that of other Aboriginal communities. Asbestosis is usually associated with at least ten years exposure, yet there is evidence of disease at the mine four years after it opened. An X-ray report on a miner named Preece in 1949 found fibrosis.⁸⁷ In 1952 a radiology report on another miner, Harry Mundine, by Dr Pooks from Grafton Hospital, returned the same result.⁸⁸ There have also been many premature deaths at Baryulgil. Cyril Mundine, who worked as a jackhammer operator from 1944 until 1966, died in 1969 at 46 years of age. Mundine had been certified with asbestosis by the Dust Diseases Board and at the time of his death he was receiving a disability pension. There was no autopsy and his death certificate gives heart disease as the cause of death.⁸⁹ The same ambiguities are found in the case of Andrew Donnelly who died in June 1977. Initially the cause of death was given as lobar pneumonia.⁹⁰ A post mortem by Dr K. Murray found asbestosis but cited accelerated hypertension and viral pneumonia as the cause of death.⁹¹ A second report, by Dr R.J. Grobius of the Grafton Base Hospital, gives asbestosis as the primary cause of death and refers specifically to gross disease.⁹²

There is plenty of anecdotal evidence of disease at The Square. Jerry Burke and his family lived close to the mill. Burke died from cancer as did both his sons.⁹³ Linda Walker had seven brothers, six of whom worked on the mine. They did heavy labour but they all died in their 40s and early 50s. They got terribly thin and in Linda Walker's words 'they fell away to nothing'.⁹⁴ Linda's sister, who lived at The Square, died at 46 in the same way. Neil Walker spent the last nine years of his life on a disability pension. Four months before his death Neil Walker was re-assessed

by the Board at a time when, according to Linda, 'his lungs were gone'.⁹⁵ The Board said he may or may not have asbestosis and he was assessed at 30 per cent disability. In the final months of his life he could not walk, he could not sleep and he could not breathe. He was 65 when he died. Among the miners only Cyril Mundine, Neil Walker and Ken Gordon received the dust pension. It is with some justification that the Dust Diseases Board in Sydney, which makes such decisions, is viewed by the Baryulgil people as hostile.

Baryulgil is a close knit community where people have a strong sense of belonging. They also have close connections with other Aboriginal communities in the region. Linda Walker has lost most of her family to the mine: her brothers, her father, her husband, her sister-in-law, and her sister. Those deaths have created a fracture between generations. The children have lost important adults in a community where oral traditions and continuity are paramount. In Linda Walker's words: 'Those deaths broke the children's hearts'.

Following Andrew Donnelly's death, a study of Baryulgil was carried out by the NSW Health Commission.⁹⁶ Of the ex-miners in the cohort nearly half had worked for less than one year, while a further third had worked for a period of between one and three years. Most of the long-term employees were dead. The researchers discovered no major differences between the ex-miners and a control group in terms of lung function. However, an analysis of the 67 identified deaths among former miners revealed that 11 per cent were attributed to respiratory disease. The most significant findings were the chronic bronchitis among 70 per cent of former miners and the evidence of X-ray abnormalities including pleural thickening, fibrosis and pleural plaques, all markers of early asbestosis.

Further research conducted in 1981 and 1982 by the Department of Health illustrates the problems in studying subjects drawn from a population suffering from such poor general health.⁹⁷ The 1983-84 Inquiry noted that the largely negative findings in the surveys must be viewed in context. Asbestos disease does not manifest readily in such a small population and is rendered even less visible against the backdrop of the appalling health typical of Aboriginal communities.⁹⁸ The Banjalang's ethical and religious opposition to autopsies have been a further barrier to knowledge as has the pattern of migrant labour. There was a high turnover at the mine and over a 30-year period hundreds of men worked at Baryulgil. According to Linda Walker many of them died young but because they moved away from The Square asbestos was never recognised as a cause of death.

Over the past two decades, legal discovery in British and US courts has revealed that companies like Johns-Manville and Turner & Newall knew far more about asbestosis and mesothelioma than did regulatory authorities.⁹⁹ They knew which parts of the production process were most hazardous, and they had access to employees' medical records, however imperfect these records were. They also commissioned medical research. Unlike the US corporations, James Hardie has mostly settled claims out of court, thereby avoiding a spill of documents into the public domain. There have been two exceptions: there are the documents (the Hardie Papers) tended at the Baryulgil Inquiry in 1983 by the former mine manager Jerry Burke, and there is a cache of in-house correspondence which was tabled during the case of Fred Swift which came before the Dust Diseases Board in Sydney in 1991.¹⁰⁰

The Hardie Papers consist of correspondence between the mine manager and head office in Sydney covering the period from 1960 to 1974. Those papers show a persistent hazard at the mill, no improvement in conditions over time, and no commitment by management to occupational safety. In February 1960 E.G. Reeve from the Sydney office visited Baryulgil. Reeve was disturbed by the practice of spilling fibre onto the mill floor before it was bagged. He made various suggestions on containing the dust, including enclosure and the introduction of exhaust fans. During his visit Reeve took photographs in the mill but as he explained in a memo to head office: 'The photographic processor did not print the sock cleaning operation presumably regarding it as blank film, which it most certainly is not.'¹⁰¹ The dust in the mill was so dense it rendered the image invisible. A mine manager's report from April 1969 noted the poor work conditions. In a summary of the dust readings the author comments: 'The only place [within the mill] which is approaching the tolerable limit is the bagging area, which is 213 mpcc'.¹⁰² Much the same conditions are described in a survey carried out between 14 and 17 September 1970. Mr J. Winters, the company's Industrial Hygiene Engineer, noted that the readings at several stations were 'alarmingly high'.¹⁰³

The company's senior medical officer, Dr McCullagh, frequently questioned the reliability of dust counts taken by the Health Department.¹⁰⁴ In one memo Dr McCullagh mentions a survey carried out by Department officers in 1969 which showed only one site above the statutory limit. He noted that the company's own readings taken at that time found only two out of the nine stations satisfactory. The same disregard for Mines Inspectorate data occurs in a report from February 1974. On that occasion, Dr McCullagh remarked: 'The asbestos in the air levels recorded by the Inspector are lower than may correctly be found at the Mine'.¹⁰⁵ The Inspectorate's error was due, he believed, to a lack of competence in using the monitoring equipment, and because during the tests six inches of rain had fallen.

In-house correspondence from February 1972 until October 1976 contains repeated warnings about the dust hazard. One report dated 7 February 1972 presents the following description of the mine:

Nevertheless, billowing clouds of [fibre] could be seen coming from this building [the mill] and Mr Burke tells me he has, on occasions seen such clouds from distances of several miles.¹⁰⁶

In a second report, written in the same month, Dr McCullagh comments that despite 'some marginal improvements there is little change and the picture remains gloomy'.¹⁰⁷

The Swift Papers reveal that like Johns-Manville and Turner & Newall, James Hardie made an effort to keep abreast of medical discovery. A company review dated October 1957 presents an accurate summary of knowledge about asbestosis with citations from the UK literature dating back to 1900.¹⁰⁸ The review also contains reference to research linking asbestos and lung cancer. In July 1966 Dr McCullagh gave a presentation to a manager's conference. He told his audience that asbestos can cause asbestosis, mesothelioma and lung cancer and he explained that there was no treatment for asbestosis and that even slight exposure to asbestos can cause cancer.¹⁰⁹ As dust levels in the industry were reduced McCullagh expected asbestos workers to live longer resulting in more cases of cancer. Asbestos was also suspected

of being an environmental hazard for those living near factories. The main danger, he explained, was to those resident within half a mile of the source of exposure, which was the distance between the Baryulgil mill and The Square. McCullagh warned his colleagues that in future James Hardie could face litigation over the siting of its factories.

James Hardie issued the first in a series of bulletins to senior management on asbestos and health in June 1971. Most of the material originated from the Asbestosis Research Council in the UK, of which James Hardie was an associate member. There was also literature from Johns Manville, and the Swiss conglomerate, Eternit SA. In addition, a James Hardie medical officer kept a watch on three dozen or so journals published in the Pacific rim.¹¹⁰

Conclusion

James Hardie's involvement at Baryulgil came to an end in September 1976 when it sold the mine. The buyer, Woodsreef, which at that time was mining at Barraba, was interested not in Baryulgil but in extending its existing leases.¹¹¹ Although it worked Baryulgil for only a brief period after its closure, Woodsreef graded the site, fenced the pit, removed the old mill and planted trees on the tailings dumps. In addition, between 1977 and 1983 state and federal authorities spent \$3.5 million at Baryulgil to solve the problems left behind by Asbestos Mines Pty Ltd.¹¹² In 1983 most of the people at The Square agreed to move to a new site at Mulabugilmah, some three miles away along a dirt road. The Square is important to community identity and in the past 20 years most of the people have moved back to The Square. The general store is used by both communities and it provides a mail service and a bank. Those older members who remain are not concerned about the tailings. They have lived with that problem all their lives.

The 1983-84 Inquiry concluded that James Hardie should have been aware of the dangers of asbestos long before Baryulgil opened and therefore was under an obligation to protect the workforce. It also noted that its own deliberations had been hindered by James Hardie's refusal to provide medical records or to allow Dr McCullagh to give evidence.¹¹³ Yet the Inquiry offered little criticism of the company and its final report offers little insight into James Hardie's behaviour. There is no explanation as to why Hardie, which was so well informed about asbestos disease, chose to keep that knowledge to itself. The testimony of miners was given little credence even though the Hardie Papers, which the Committee accepted as authentic, substantiated their claims about work conditions and environmental pollution.¹¹⁴ Perhaps most surprising of all, the Inquiry found no evidence of widespread occupational disease. Some of the Banjalang elders, including Neil Walker, spoke at the 1983-84 Inquiry but the community never saw the final report and they were told nothing about the outcome. It was as if the Inquiry had never taken place. In any case over the past 20 years men and women have continued to die prematurely. During the current negotiations over a settlement, James Hardie has resisted the inclusion of Baryulgil, forcing the community to initiate legal action in the NSW High Court in March 2006.

Work conditions at Baryulgil were similar to those faced by black workers on South African mines under apartheid. That in turn raises the question as to how that could have happened in Australia? James Hardie was under no pressure from

trade unions or regulatory authorities to improve conditions. The miners were Aboriginal, they had low expectations of employers and they were largely isolated from the outside world. In truth, their choice was to work for Asbestos Mines Pty Ltd, or to work for no one. There were in addition technical factors peculiar to asbestos which meant that the mills were particularly hazardous. Turner & Newall and Johns-Manville found that it was impossible to eliminate dust and still produce fibre cheaply. As a result, around a third of mill workers in South Africa, Swaziland, Zimbabwe, and Canada developed asbestosis.¹¹⁵ Baryulgil was different in the sense that the mine's output and profitability were of little importance to the operating company. Its reason for running the mine was to maintain a seat on the Tariff Board rather than to produce large quantities of chrysotile.¹¹⁶ Consequently, there were none of the pressures on production which contributed so much to the dust in South Africa and Canada. The Hardie Papers show that the threat of occupational disease at Baryulgil was simply irrelevant to the company's senior management.

The 1983-84 Inquiry rejected claims by the Aboriginal Legal Service that James Hardie had exploited an Aboriginal community. In its final report it noted that conditions at Wittenoom, the site of Australia's worst occupational disaster, where the workforce was white, were just as bad.¹¹⁷ Presumably James Hardie would have treated white miners in the same way and therefore the issue of race is not relevant to labour relations at Baryulgil.¹¹⁸ That conclusion is contradicted by the Swift Papers which suggest that conditions at the mine were worse than at James Hardie's metropolitan factories. But it is consistent with the company ethos identified by the Jackson report.

In the US, Canada and South Africa, the asbestos industry benefited from poor and sometimes complicit state regulation. That in turn has led to the delayed costs of mining and manufacture being shifted onto the public purse. In South Africa, the post-apartheid state is still paying for the reclamation of mines in the Northern Cape abandoned by British companies in the 1980s. Until the Jackson Inquiry, the same happened in Australia. What changed the attitude of federal and state governments, which for so long had shared an interest in James Hardie's success, has been the spiralling costs of litigation from publicly owned power stations, railways, and shipyards. On a small scale Baryulgil presents a window into the conduct of James Hardie. It also presents a microcosm of the global industry. It is a story of low wages, hazardous work conditions, and environmental pollution. It is also a story of the protracted struggle by a community for recognition of its losses.

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Endnotes

- * This article has been peer reviewed for *Labour History* by two anonymous referees. The author would like to thank the people of Baryulgil and especially Ken and Pauline Gordon and Linda Walker for their help.
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4. *Ibid.*, p. 117.
5. See Geoffrey Tweedale, *Magic Mineral to Killer Dust: Turner & Newall and the Asbestos Hazard*, Oxford University Press, Oxford, 2000; and Jock McCulloch, *Asbestos Blues: Labour, Capital, Physicians and the State in South Africa*, James Currey, London, 2002.
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13. *Ibid.*, p. 38.
14. See Matt Peacock, *Asbestos: Work as a Health Hazard*, Australian Broadcasting Commission, Sydney, 1978.
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26. See the Annual Report of the Aborigines Welfare Board for the Year Ending 30 June 1944, Parliament of New South Wales, Appendix B, p. 19.
27. For a history of the early period, see Jock McCulloch, *Asbestos: Its Human Cost*, University of Queensland Press, St. Lucia, 1986, pp. 131-137.
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29. Submission by Hardie Trading (Services) Pty Ltd to the 1983-84 Inquiry, November 1983, p. 8.
30. Author's interview with Ken Gordon, Grafton, 29 September 2005.
31. *Ibid.*
32. Author's interview with Mr Neil Walker, Baryulgil, 22 October 1984.
33. William Hindle, evidence before the 1983-84 Inquiry, 7 February 1984, Sydney, pp. 223-237.
34. *Ibid.*, p. 235.
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37. Author's interview with Linda Walker, The Square, Baryulgil, 29 September 2005.
38. Author's interview with Pauline Gordon, Grafton, 29 September 2005.

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40. *Ibid.*
41. Author's interview with Linda Walker, The Square, Baryulgil 29 September 2005.
42. *Ibid.*
43. *Ibid.*
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45. On the history of mining and milling see McCulloch, *Asbestos Blues*; Lloyd Tataryn, *Dying for a Living: The Politics of Industrial Death*, Deneau & Greenberg, Toronto, 1979; and Andrea Peacock, *Libby, Montana: Asbestos and the Deadly Silence of an American Corporation*, Johnson Books, Boulder, 2003.
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47. Bill Harrington, evidence before the 1983-84 Inquiry, Sydney, 7 February 1984, p. 109.
48. William Hindle, evidence before the 1983-84 Inquiry, Sydney, 7 February 1984, pp. 223-237.
49. Jerry Burke, evidence before the 1983-84 Inquiry, Sydney, 7 February 1984, p. 126.
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52. Jerry Burke, evidence before the 1983-84 Inquiry, Sydney, 7 February 1984, p. 159.
53. Rodney MacBeth, evidence before the 1983-84 Inquiry, Sydney, 7 February, 1984, p. 215.
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