

Happy Valley Road and the Victoria Hill District: A Microhistory of a Victorian Gold-mining Community, 1854–1913

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Abstract

The Victoria Hill Reserve in Bendigo is a major site for interpreting the history of quartz mining in Bendigo from the 1850s through to the early twentieth century. Although little of the domestic architecture along Happy Valley Road adjoining Victoria Hill survives to help us interpret the social history of mining, the area has a very rich archive of both personal and public records. These records can be used to write a microhistory of a gold-mining community. Labour-intensive quartz reefing sponsored the formation of mining communities. The fabric of daily life in these communities was dictated by mining. Mining was inherently unpredictable for both speculators and wage workers. The industry also created a harsh environment that made domestic life dirty, unhealthy and unsafe. Like all gold mines, the Victoria Hill mines were a diminishing resource, and boom was followed by depression and the inevitable loss of population. This pattern of boom and bust was repeated across the Victorian gold-mining districts.

The Victoria Hill Historic Reserve, five minutes drive from the centre of Bendigo, is one of the more accessible sites of mining heritage in Victoria. The area was critical in opening up the Bendigo quartz reefs in the mid-1850s, and mine owners and companies used the hill to pioneer deep sinking. Well-laid-out paths and excellent signage, interspersed with seating, direct walkers through the early open cuts, which dramatically reveal the synclines and anticlines of the Bendigo saddle reefs. An old iron poppet head, returned from service as a fire watchtower in the Dandenongs, sits on top of the capped shaft of the Victoria Reef Quartz Mine. In the 1890s this shaft, then one of the deepest in the world, hauled men and materials (but by this stage little gold) over 1,000 metres to and from the surface. From the poppet head itself, visitors can look out along the former New Chum line of reef, which was once a scene of intense industrial mining activity (Figure 1).



Figure 1: Victoria Hill from New Chum Hill. Nicholas Caire Photographer
(Courtesy State Library Victoria)

The headframe in the centre is the North Old Chum. To the right of this is the headframe of Lansell's 180, and to the left of the North Old Chum was Ballersedt's open cut. Nicholas Caire took this photograph as part of a series of images of Sandhurst (Bendigo) in 1875.

Along the Bendigo lines of reef in the 1870s was perhaps the largest concentration of steam engines in the Australian colonies. The visitor trail meanders through two major open cuts and past an array of mining artefacts—shafts drilled by hand into unforgiving rock, engine footings for winding, and compressed air engines, and there is also an old stamp battery that crushed quartz to win gold. Time has erased much of the harshness of mining; red ironbarks have regrown and are testimony to the resilience of eucalypts. In spring the reserve is clothed with flowering wattle. It is a delightful place to walk and the author of this article is frequently led through the reserve by his border collie, Artemis.

From the reserve the curious visitor gets glimpses of two nineteenth-century houses, a stone-and-stucco cottage and a more elaborate colonnaded entrance to a once imposing gentleman's residence. Apart from these buildings there are few clues on Happy Valley Road, the road running along the western side of the reserve,

about the community that mined Victoria Hill. In 1993 heritage architects Graham Butler and Andrew Ward surveyed Happy Valley Road and recorded five houses that they considered were part of the nineteenth-century landscape. The most striking of these was Bon Accord, the brick home of the mining investor William Rae. In the 1870s Rae added a classical Palladian front of two grand rooms and an entrance hall to his modest timber home. Rae commissioned Bendigo's premier architect of the 1870s, William Vahland, for this extension. A generation later, Rae's son Willie turned to the Australian-born William Beebe to design a brick villa close by his father's house. This was noted in the 1993 heritage survey. Also included in the survey was Coath's Cottage (sometimes known as Guernsey Cottage), an 1860s house built of mud, stone and stucco. These three houses were listed in the study as being individually significant (Butler and Ward gave such houses ranks of A–C). Two other houses were listed in the study; one was ranked D (contributory/representative) and the other E, presumably considered of little heritage significance. The house ranked D was a weatherboard cottage, constructed from the dominant building material of domestic architecture on the Victoria goldfields.¹

On 7 February 2009 a fire was deliberately lit in Eaglehawk and tragically killed two men, part of the overall toll of 173 lives lost across Victoria on 'Black Saturday'. In its path, from St Just Point along Happy Valley Road, the fire destroyed a number of historic buildings. In the wake of the fires all that remained of Bon Accord was the 1872 extension of Vahland, and Beebe's villa was severely burnt. The owners of Bon Accord bravely decided not to demolish but added a new addition to its rear. An old stable was unfortunately beyond repair. The owners of the Beebe villa decided not to rebuild, and the house was demolished. Several timber cottages from the nineteenth century were destroyed by fire on Black Saturday. Near Happy Valley Road in St Just Point, a timber cottage built by a miner diarist, Richard Pope, was burnt to the ground. Coath's Cottage sustained severe damage, but, despite the odds against success, Andrew Ward undertook the monumental task of restoring it.

Even before the fires of 2009 much of the nineteenth-century housing fabric of Happy Valley and surrounding mining areas had disappeared. Although Butler and Ward recorded only five historic houses in Happy Valley Road in 1993, the rate assessment books of 1873 rated 55 residences. With this considerable loss of housing it is difficult for the contemporary visitor at Victoria Hill to understand that

open cuts, engine beds and other mining remains were the product of a once vibrant community. Victoria Hill, however, has an extremely rich archival heritage that permits the historian to reconstruct the lives of this mining community in a level of detail that is rarely possible in other communities. Through these records we can write a microhistory of this mining settlement.

From the Big Picture to Microhistory

In the 1960s and 1970s a number of leading historians who turned to the goldfields explored the big picture rather than the minutiae of ordinary lives. Geoffrey Serle's *The Golden Age* painted a masterly portrait of Victoria during the golden decade of the 1850s, with vivid accounts of life on the early diggings, the development of the Victorian economy and a detailed narrative of the birth of democratic politics in the colony. In his *Rush that Never Ended*, Geoffrey Blainey, in the process of covering the vast scope of Australian mineral development, told the story of Victoria's gold industry beyond the 1850s and into the much longer company phase of mining.

The best portrait of an individual mining community remains Weston Bate's *Lucky City*, which narrates the development of Ballarat from the alluvial rushes of the 1850s to the turn of the twentieth century. In less detail Bate covered the story of Ballarat through the twentieth century in *Life after Gold*.² Yet, as a portrait of a gold community, *Lucky City* tells us more about the city fathers (James Oddie is an obvious example) than the miners who laboured in the deep lead or quartz mines and are seldom seen. The unemployment and forced migration that came in the wake of the collapse of deep lead mining in the 1870s is barely touched on. Nor do we hear from the tradesmen, whose skills were essential to the development of Ballarat's successful engineering works. And, as working men are missing, so also are their families. Bate argues that the city had an exceptionally high rate of home ownership, but he never explores the system of the miners' residence area on crown land that made this apparent home ownership possible.

Recent historians, influenced by the methods of microhistory, have attempted to reconstitute the lives of gold-mining families. Pat Grimshaw and Charles Fahey pioneered his approach in their 1980s study of Castlemaine. More recently this methodology has been adopted in a number of unpublished doctoral dissertations. Louise Blake has explored 'Women and Community on the Upper Goulburn Goldfields'

(2019) and Joan Hunt, in 'Mining a Rich Lode' (2015), has researched the families who settled on the Springdallah Dead Lead near Ballarat. While these studies owe much to overseas models—the work of Barry Reay stands out—Australian microhistorians labour under a number of acute disadvantages.³

Unlike their English counterparts, scholars of the Victorian goldfields have no manuscript census returns to enable exploration of small-scale locations. The 1861 printed Victorian census provided detailed tabulations of small regions on the goldfields; thereafter returns at the local level were very poor. The last colonial census to record occupations for towns and cities was in 1871. Under the direction of Henry Archer, himself a product of the gold migration, a detailed system of recording births, deaths and marriages was introduced in Victoria. Although records of birth, deaths and marriages are stored in the Public Record Office Victoria, they are generally closed to local researchers. Local historians have to rely, like Joan Hunt, on the chance survival of local duplicates of vital records or employ, as Louise Blake did, the limited information available in digital indexes of vital events. Although individual certificates can be purchased, their cost at over \$20 a certificate is prohibitive for detailed local studies.

Weston Bate argued that Ballarat was a 'Lucky City' not just because it was endowed with rich gold resources—shallow alluvial, deep lead alluvial and quartz—but also because its location as a railway centre permitted the city to later exploit the rich agricultural lands of its hinterland. Most importantly, the first migrant generation proved to be a rich human resource, and they brought skills and ambition from their old lands to Australia. Yet this is a view from the centre of the city, from the mercantile houses, the offices of the local manufacturing works, the municipal council offices and the local stock exchange. By focusing on Victoria Hill and Happy Valley Road and its environs, a small district of Bendigo, this article investigates another side of mining: the insecure world of mining suburbs where life chances were tied to the peculiarities of geology and the exploitation of an asset that faced ineluctable decline.

A microhistory of the region, compiled through public records and a rich selection of personal papers, can uncover much about daily life on the Victorian goldfields during the years after the great alluvial rushes of the 1850s. A close-grained reconstruction of life in this mining district illustrates the riches that investors could make, but it also reminds us that mining was inherently risky. Mining investments could suddenly

disappear owing to the happenstance of unpredictable geology. Even greater risks confronted those who physically worked in the mines. Like the dividends of investors, regular wages were subject to the vagaries of geology. In turn, the unpredictability of wages cruelly touched the families of the mining workforce. Gold also created a hostile physical environment—a world of dust, mullock heaps, dangerous open cuts and unsanitary backyard privies. In reconstructing the history of this region, this article will show how the exploitation of a diminishing asset shaped the daily fabric of life. Stories of building homes, looking for work, raising children in difficult environments, or risking all in speculative mining ventures were repeated across the goldfields. Such stories are critical to understanding and interpreting the mining heritage of Victoria.

Written Heritage

Victoria Hill, Happy Valley Road and St Just Point have left us with a rich written record. Particularly rare and valuable are the personal voices of residents. From Happy Valley Road we have the journal of John Bartlett Davies, who settled as early as 1858. Two other diarists lived close by. From 1871 to 1886 Richard Pope, a quartz miner and a keen diarist, lived at St Just Point, at the northern end of Happy Valley Road (Figure 2). At the southern and top end of the road, is Bendigo's most prominent residence, Fortuna Villa. Although Fortuna was the home of George Lansell, it was also the home for many years of the indefatigable diarist Isaac Edward Dyason. In March 1871 Lansell, when he was in the process of purchasing Fortuna Villa, offered Dyason employment, a proposal accepted somewhat reluctantly. In March 1875 Lansell embarked on a world trip, and left Isaac Dyason in charge of Fortuna until mid-1876. Lansell left once more to live in London from 1881 to 1887. Again Isaac Dyason was the master of Fortuna, sharing the villa with his wife Harriet. Three of their children were born in Fortuna. In 1888 he continued to live close by Happy Valley in Marong Road (the view of his house has recently been obscured by a number of units). This residence, also once owned by Lansell, was close to Fortuna, but it was also near to the family of Harriet Eastwood. Harriet and Isaac meet in 1876 at a dance ('nice little widow for partner') and they married in 1881. Harriet was a daughter of Willian Mason, a wine merchant, who lived in Happy Valley Road, and her sister Jane married William Rae, the quartz reef owner on Victoria Hill. The Dyason family were frequent visitors to the Rae home, Bon Accord, in Happy Valley Road.⁴



Figure 2: Map of Victoria Hill and region, based on ‘Bendigo Gold Field’, issued by W. Dickson, Secretary for Mines, 1913 (Courtesy State Library Victoria)

These rich personal sources can be supplemented with public records. To explore the residents of Happy Valley, I have extracted all names listed as living in the street from the rate assessment books for 1873, 1877, 1885, 1891, 1897, 1908 and 1913.⁵ This source gives a description of the rateable property, lists whether the property was owned by the crown (as a miner’s residence area), gives the net annual value of the property and also states the number of persons living in each residence. As part of an earlier project I conducted with Professor Alan Mayne on the central Victorian goldfields, I was given access to the records of the Office of Births, Deaths and Marriages, and I have attempted to recover the genealogical history of as many families listed

in the Valley as was possible.⁶ The index of probates has also been consulted. Together the journals and the public records permit us to explore in some detail the lives of those who settled in Happy Valley and environs.

John Bartlett Davies Arrives in Happy Valley

Some time in the early twentieth century John Bartlett Davies decided to transcribe entries from a diary (or diaries) into an account of his life on the Bendigo goldfield. Davies commenced his memo by recalling his decision to leave Cornwall in 1857. He wrote:⁷

In common with many others in my station, I got dissatisfied with my prospects at home and determined to try my fortune in Australia. After some difficulty in getting the needful outfit for the voyage, owing to my father being unwilling to part with me (he having suddenly discovered that I was useful on the farm) I found myself on the eve of starting for the gold land with something over £50 in my pocket.

Although Davies' background was not typical of Cornish migrants to Victoria, it was not unusual. On the Victorian goldfields the most common background of Cornish migrants was the copper and tin mines of the west of Cornwall, with around two-thirds recruited from mining or its associated industries such as engineering. Just over one in ten migrants came from farming families.⁸ Most migrants were probably not as well off as Davies. In the 1851 census his father was listed as a farmer of 100 acres employing three men. In addition, the household contained two female domestic servants.⁹

Like thousands of other Cornish migrants, Davies journeyed from Penzance to Liverpool by steamer, and took passage to Melbourne on the *Sultana*. Accompanied to Liverpool by a brother and an uncle, Davies, aged just 21, also had the good fortune to be taken under wing by a fellow passenger booked on the *Sultana*, Mr Thomas Luxton. Davies wrote that Mr Luxton proved to be a 'judicious counsellor' to a novice like himself and an 'agreeable ship mate'. Mr Luxton advised him to purchase provisions 'in the form of hams, potatoes, cheese, jams etc' to supplement the fare provided on the ship. On 21 December 1857 Davies bade farewell to his uncle, brother and Liverpool and began the long journey to Australia.¹⁰

By early March 1858 Davies was tired by the tedium of the voyage, and his discomfort was increased by the depletion of his luxuries. He

would 'gladly have replaced the sea with any place worthy of *Terra Firma*'. When he saw Cape Otway from the deck of the ship, he felt truly thankful, and his spirits rose even more as they entered the heads. Once in Port Phillip Bay, Mr Luxton pointed out Mt Macedon, some 40 miles distant, and the 'Black Forest of Bushranging celebrity'. At Sandridge Mr Luxton continued to be an excellent companion and provided the young Davies with a bed in Collingwood. Here, on his first night in Australia, Davies 'listened with avidity to anything connected with Bendigo' as it was there he 'intended to settle and pick up nuggets if he had the chance'.¹¹

As his companion had business in Melbourne, Davies caught the coach the following day and set out alone for Bendigo. His journal recorded passing through the towns of Keilor, Sunbury and Gisborne, none of which seemed to him to be places of much importance, appearing to be chiefly kept up by carriers on the roads. The Black Forest, however, was worthy of its name: 'The trees being very large and growing very thick together, a fine rendezvous for lawless bands could well be imagined'.¹² After sleeping the night in Kyneton, Davies continued his journey via Castlemaine. When about ten miles distant from Bendigo:

We came in sight of the "Big Hill" being a high dividing range and which our horses had to climb over in order to reach "Bendigo" it must be a fearful place to pull heavy loads over and has been the scene of many untoward accidents. Beyond this our path lay over a level rise of ground all the way known as Kangaroo Flat whose surfaces bore ample testimony to its auriferous character, as well as the diggers themselves who were scattered about in patches plying their tub and cradles and as we got nearer Sandhurst [there were] other gold getting appliances in the shape of puddling machines which were then in general use.¹³

Arriving in Bendigo, Davies quickly sought out contacts given to him by his shipboard companion. Dropping in at a number of hotels, he also found boyhood companions, including a Thomas Percy. His friends in turn helped him search for work, and within a couple of days he 'fell in with a party of Irishmen' who wanted a man immediately to work their puddling machine. After months at sea, however, he was not used to manual labour; his hands soon blistered, and he gave up his puddling work. To his surprise the Irishmen paid him in pound notes, the first he had ever seen. He was astounded to see 'paper currency on a gold-diggings—the cradle of sovereigns'.¹⁴

Throwing up his puddling job Davies called on friends, who offered him accommodation, and they also informed him that a Henry Thomas was living in a place called Happy Valley. After making a number of inquiries, he found Happy Valley where he fell into conversation with 'some Breage men'. As they reminisced about Cornwall, John Bartlett Davies saw Henry coming down the valley with an axe over his shoulder. Henry kindly asked John to stop with him and, after 'many yarns about old times and old friends', Henry explained that he had just purchased a horse and dray to carry wood and quartz. He offered to go into partnership with John. After a couple of days searching, they purchased another horse and dray for 'for something over £70'. John had only £26 left from his savings so Henry Thomas agreed to make up the difference, and they entered into a partnership as carters. Davies took up residence in Happy Valley, where he remained for most of the next three decades.¹⁵

A Society in Transition

John Bartlett Davies arrived at a critical juncture in the history of the Bendigo goldfield. Travelling across Kangaroo Flat, he noticed 'ample testimony' of the alluvial diggings and watched tub and cradle men ply their trade. Closer to the city he observed puddling machines that were in general use in 1858. Although his dream had been to pick up nuggets if he had the chance, such dreams were fast fading by the time he arrived on the diggings. In the first flush of the gold rushes rich finds could be made. Isaac Dyason, who would later be associated with Happy Valley, gave up digging in 1853 with £1,500 clear profit. By the late 1850s alluvial mining was in decline. The mining registrars spoke of abandoned machines, and sludge from the machines had created major environmental problems.¹⁶ A way forward was to turn to quartz reefing.

Winning gold from quartz was an expensive and risky enterprise. The first quartz reefers generally worked in small parties. Leaseholders were working proprietors, and they relied on good fortune to provide capital for mine development. In the late 1850s miners began experimenting with schemes to raise capital. Ralph Birrell has written on the early forms of companies and the legislation devised to promote quartz reefing.¹⁷ The late 1850s also saw men who had made money from other endeavours enter quartz reefing. The most spectacular example was George Lansell, who in later years was given the sobriquet, the Quartz King. In the early 1860s he invested in the Advance Mine on

Victoria Hill near Happy Valley. In 1865 and 1866 this mine produced excellent dividends and was the foundation of Lansell's mining success.¹⁸

The goldfields were changing in other ways. Early alluvial mining had been the domain of the young, single man. However, from the earliest days on the goldfields, women and children were also present. Perhaps a quarter of the early diggers came as married men. Single and married diggers also came with unmarried sisters. In the second half of the 1850s the colonial government made a concerted effort to redress the imbalance of the sexes and sponsored the migration of single women. Single diggers also called for their girlfriends and fiancées to join them. The late 1850s and early 1860s constituted a period of rapid family formation. By the census of 1861 the marriage rate of women on the goldfields was, by British standards, exceptionally high. In the age cohort 40–44, most women in Bendigo were married; at home maybe one in five remained unmarried at this age.¹⁹ It was into this society in transition that John Bartlett Davies settled, and his diary records the process of establishing himself, finding work, and creating a family and home.

After John Davies and Henry Thomas had purchased the horse, dray and harness they set about seeking work. Business was erratic. When they found jobs they made 35s to 40s per day but 'work was not constant by any means'. When not carting they worked on their houses. Davies boasted that he soon showed himself competent in the 'carpentering line' and was able to cook a steak or a chop and make a pie and pudding. The latter dainties, he added, were only indulged in on Sunday. As winter set in a chimney was erected on their slab and calico tent, which enabled them to get warm and dry their clothes.²⁰ The 1861 census shows that such simple houses were the norm around Victoria Hill. At this census there were 222 residents living in Happy Valley, most of whom were young men in their prime. They were almost all engaged in quartz reefing, and they lived in tents or in houses of one room.²¹

Collecting timber in the bush, Davies had to learn the skills of a bushman. Initially he experienced difficulty finding his way, 'but by degrees [I] got accustomed to it and soon felt nothing about it.'²² He also had to come to terms with a new climate. After two winters he realised that:

The rainy season set in about the middle of June and continued to rain pretty frequently until the middle of September, when everything

around seemed to put forth tokens of spring time. The bush looks beautiful during the two months that follow the short winter. All the undergrowth seems to be covered with flowers something like the heather, only much higher shrubs, and the ground everywhere with an endless variety of flowers, and in the level flats the ground was soon covered with fine grass, and in some places presented quite a Parklike scene. As November and December advanced, however, these beauties began to fade and the water in many places becomes scarce and the tracks in many places covered some inches deep with dust, but it is not until January that the full force of the summer is felt.²³

Initially Davies and Thomas did not receive sufficient work from carting quartz to public quartz batteries, and they decided to set up a puddling machine at Sidney Flat with two other diggers. They purchased timber for the machine, obtained a lease and put up a stable. When their partners abandoned the project, Davies and Thomas sold their timber and returned to carting quartz. By early 1859 they had more work than they could handle so they purchased more horses and employed labour.²⁴

Henry Thomas also heard that his brother Richard and (unnamed) sisters were working at Creswick. Henry visited them and convinced one sister to come back and keep house for himself and John. When she agreed they decided to build a more substantial weatherboard dwelling 24 by 14 foot (about 7.3 by 4.3 metres) costing £90. John Bartlett Davies borrowed his share of the capital, £40, from his Cornish mate Thomas Percy. Richard Thomas also joined the circle when he moved from Creswick and became a partner. Davies combined quartz carting with timber getting, and by June 1859 he boasted that working with a Redruth colleague he made good money.²⁵ In the early 1860s he began to re-invest the carting and timber profits into mining investments, and he became a regular dealer in shares. Initially he lost £70–80, but he was not deterred as they received a few dividends from time to time. The carting business, which changed partners on a number of occasions, was a source of information about gold yields. Davies and his partners—now Tom Percy and Richard Thomas—also took out shares, which gave them some influence in winning carting contracts.²⁶



Figure 3: The claim of Richard and Thomas Coath and their partners on Victoria Hill 1857
(Courtesy Bendigo Historical Society)

Like many early quartz reefers, Richard Coath lost his claim in the 1860s when the returns of gold failed to repay costs of deep sinking. Many of the original prospectors on Bendigo lost their claims in these years.

The 1865 drought drove up the price of feed and made carting difficult and expensive.²⁷ Not daunted by this, Davies and his partners continued to speculate, and from 1866 these investments proved to be very profitable. Davies invested in two ways. First, he and his partners purchased a share in a number of private mines. In October 1866, when the Advance Mine offered a number of shares to raise capital, they bought two for £410. They also purchased an eighth share in the Unity claim for £40. Second, they also invested in public companies. When the Unity claim was floated as a public company in 1869, they received 2,500 of the 20,000 shares and Davies immediately sold 300 for £56 5s.²⁸ In 1871 he wrote: 'I have done no carting myself this year, not because I am above working, but because I can make more money by share speculating'.²⁹

Between 1858 and 1871 John Bartlett Davies made the transition from workingman to independent gentleman. While he had not picked up nuggets, gold was his avenue to success. This was a dream that very few realised, but it was not unheard of. When William Rae of Aberdeen married Jane Mason in April 1861 he was working as a quartz crusher. Profits from this enterprise were invested in his mining claim. By the early 1870s, Rae had retired from active mining. In 1872 he commissioned an addition of two grand rooms and entrance hall to his 1860s weatherboard house and thereafter lived the life of a gentleman bibliophile (Figure 4).³⁰ Similarly, David Chaplin Sterry was working as a quartz miner in March 1860 at the birth his daughter Elizabeth Jane. Profits from this endeavour were invested in the construction of the Gold Mines Hotel, designed by William Vahland and opened in 1872.³¹



Figure 4: William Rae (Courtesy Madeleine Chow)

This picture was probably taken in the 1880s when William Rae had retired from active mining and lived the life of an independent gentleman spending most of his time reading.

Among the prominent quartz reefers on Victoria Hill were the German father and son team of Johann and Christopher Theodore Ballerstedt. Together, and sometimes with other partners, they opened up quartz reefs from the 1850s. Their early open cut can still be seen on Victoria Hill. They were fortunate, and early profits, which they refused to disclose, financed later reefing. In the 1860s they built the handsome villa, Fortuna, south of Victoria Hill.³² Johann died in 1869 leaving an estate valued for probate at £19,000, and in February 1871 Christopher (normally known as Theodore) sold his house and mine to George Lansell for £30,000 and returned home.³³ George Lansell renamed the Ballerstedt claim the '180' and used it to experiment with deep sinking in the 1880s and 1890s. The footings of his winding machinery for the '180' are also still extant on Victoria Hill.

To understand the history of Bendigo we need to appreciate a number of critical factors about quartz mining; each reef was a diminishing asset, and the cost of getting gold was an enormous consumer of capital. Unless claim holders found easily won gold, their costs quickly mounted, and they faced enormous problems working and holding onto their claims. Richard Coath, the son of a sawyer and a native of Guernsey, migrated to the Victorian goldfields in 1854 and in the same year took up a claim on Victoria Hill with his brother Thomas and three other partners. By the late 1850s these claim holders faced difficulties financing their mine, and they were forced to amalgamate with eight other claims to form one company, the Victoria Reef Quartz Mining Company. Although the original claim holders received shares in the new company, these were not fully paid up, and within a few years many of the original claimholders forfeited their shares for non-payment of calls. Richard Coath was one of these unfortunate miners, and by 1863 he had left Happy Valley and tried his luck at Rushworth. This was also unsuccessful; he was back in Bendigo in 1865 when he filed for bankruptcy, claiming failed mining speculations as the cause of his distress. Coath remained in Happy Valley for the remainder of his life, and he was listed in subsequent rate books as a miner, presumably working for wages.³⁴

In the 1866 rate book, the first to give occupations, the majority of householders were miners (86 per cent) living in humble houses built on crown land or miners' residence areas. Several of these initial claim holders were pushed, like Richard Coath, into working in one

of the major mines on Victoria Hill or in mines in the wider district. Over the next five years the turnover along the road was high, and 43 per cent of the 1866 householders had moved out by 1873. Overall the Bendigo goldfield was prosperous in the late 1860s and early 1870s, and population flowed into both Bendigo and Happy Valley. In 1873, 25 of the 55 householders in Happy Valley had arrived since 1866. These new migrants joined the old residents in forming the distinctive mining suburbs of Bendigo.³⁵

Our best account of this later stream of migration comes from the diaries of Richard Pope, who settled at St Just Point on the northern edge of Victoria Hill in 1871. Born at Breage in Cornwall in 1835, Pope migrated for the first time when he turned 21 and mined in the Virginia coal mines, the Illinois silver mines and at the great copper mines of Michigan. The day after his marriage in 1858 he journeyed once again to the US; then, on returning to the British Isles, he joined his father, a mine manager, in Ireland. In 1868, after his father died, he once again migrated, this time to Australia and not as a bachelor sojourner but as a married settler with his wife Mary Anne and family of five young children. His brother Joseph had preceded him, and a sister also settled in the copper triangle in South Australia. After working in the deep lead mines of Ballarat and district, Pope grew tired of erratic employment resulting from the failure of the Ballarat leads. He was never fond of deep lead mining with its dank atmosphere and creaking timbers, so he returned to hard rock mining at Bendigo in 1870. His story was a common one during the boom of the early 1870s.³⁶

Mining Communities

David Goodman has argued that the colonial authorities in the 1850s feared a society made up of single, immature males.³⁷ Their concerns were largely misplaced, and most diggers the 1850s did not succumb to the irresponsible life feared by evangelical Christians. As mining moved to a more stable regime of puddling and then quartz reefing, miners began building permanent houses and establishing families. When we probe behind the raw statistics of the census, we can begin to uncover complex family links. Even single diggers brought complex family relationships to the goldfields, and many single diggers sent for, or encouraged, kin to join them.

Although John Bartlett Davies travelled to Australia alone, his decision to stay in Happy Valley was buttressed by the offer of a boyhood

friend to take him into a partnership. Very rapidly these two young men extended their friendship and family links. Henry Thomas was joined by a brother, Richard Thomas, and a sister Julia.³⁸ In March 1861 Julia married a Thomas Wills, who operated a crushing machine at Golden Square. The young John Davies was invited to the wedding and here he met the bridegroom's sister Grace. Grace and John married in March 1863.³⁹ John Bartlett Davies was also eventually joined by three brothers. James William arrived in 1860, only to succumb to a bowel complaint soon after arriving. John wrote he felt 'more lonely than ever for we were always on the best of terms and I used to look forward with great pleasure to the time when he would be my daily companion.'⁴⁰ In 1869 Sidney Davies arrived and probably lived with his brother until he married in 1873. Gamaliel Robert Davies (known as Robert) arrived the following year and married in 1874. His first wife, Mary Anne, died in 1879, and Robert remarried in the same year, this time taking a young widow, Caroline Johnson, as his wife. Both brothers established households around Victoria Hill and worked in mining.

At the height of the boom in 1873, Happy Valley Road contained a total of 55 houses and a total of 216 inhabitants (Figure 5). The rate books do not give a description of the material of which the houses were made, but the average net annual value of £14 10s suggests that most were timber houses. William Rae was rated on a house and stables valued annually at £65, indicating that his was the only brick house. The majority of residents in 1873 (73 per cent) were miners, but there were also two storekeepers, a restaurant keeper, a butcher and a bootmaker. In 1873 only one residence was built on freehold land; all the rest were built on what was known as a miner's residence area. Under the Mining Act, miners and others were able to take up crown land, often in large areas of half an acre, and build a house for a nominal rent of 5s per year. In 1881 the law was amended to allow residence area holders to sell the improvements on these blocks and bequeath them to their heirs.⁴¹ Well into the twentieth century the residence area remained a common form of household tenure in Happy Valley Road; 40 per cent of houses were built on crown land in 1913. Occupying crown land, often not identified as such on rate books, explains the apparent high levels of home ownership on the goldfields.

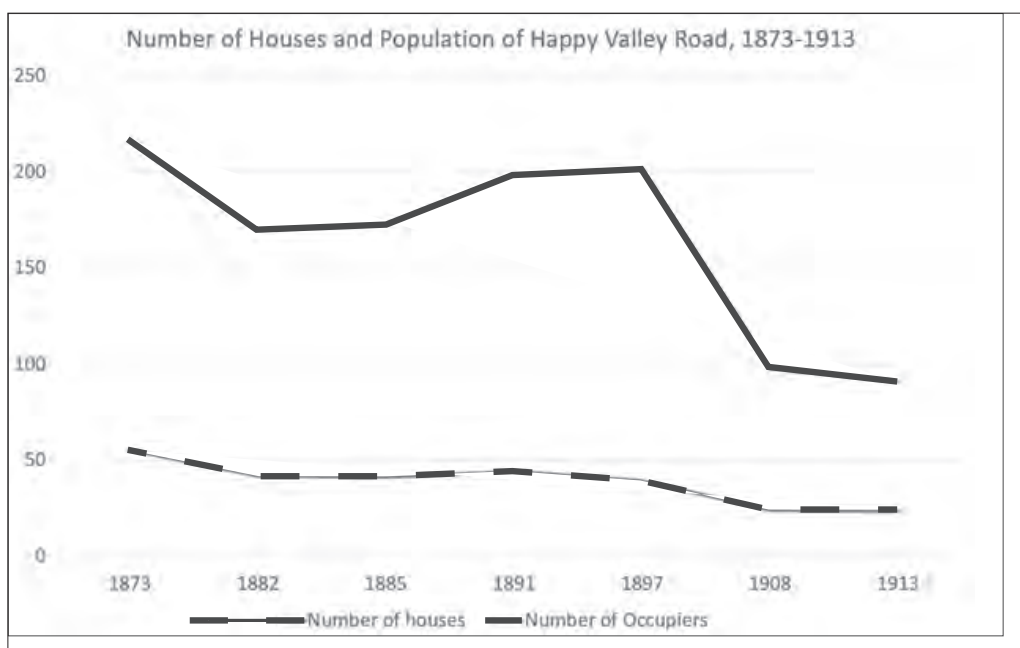


Figure 5: Numbers of houses and occupiers in Happy Valley Road, 1873–1913
(Rate Assessment Books 1873–1913)

In a booming mining community of the late 1860s and early 1870s, the simple weatherboard cottage was an ingenious way to quickly and cheaply house the growing population. When he first arrived in Bendigo in August 1870 Richard Pope boarded at a hotel in Long Gully at 18s per week, which was around 40 per cent of his weekly wages. When his family arrived at the end of the month, he rented two rooms for 5s 6d. This was a crush for his family of seven, and by the new year he had planned for his own house at St Just Point, north of Happy Valley:⁴²

Wednesday 18th January 1871

Carpenter started putting up our new house for us at St. Just Point today, 4 Rooms, 22 feet long and 20 feet in depth, 9 feet walls to house. £7 10s to put up shell.

Friday 3rd February 1871

Received £40 draft from Ballarat for sale of house and went into Sandhurst today to get it cashed which I succeeded in doing after some trouble and afterwards paid Magee £25 on a/c, he having supplied building material for our house.

Saturday 4th February 1871

Paid Mr.Colenso 30s for building chimney and carpenter £5 on account, and went into the house to live this afternoon (though it is not finished), to save the rent.

In the early 1870s, Happy Valley bore many of the distinctive demographic features of the mining districts of Bendigo. After the alluvial period, few Irishmen or Scotsmen settled in the area. When we include the surrounding districts of New Chum, St Just Point and Ironbark, a distinct Cornish community is evident. The area also shared with Ironbark a strong German community. A feature of Happy Valley was the strong representation of Channel Islanders—Richard and Thomas Coath, William Mason and James Pitcher were born in Guernsey. In 1873 the sexual imbalance of the gold-rush days of the 1850s was still evident. Of the 55 occupied residences, nine were inhabited by only one person. These were generally bachelors. When Adolphus Witt died in the hospital in 1888 little was known about his background other than his age. He was buried in the Lutheran section of the White Hills cemetery. Those who did marry largely followed the patterns of high fertility evident in the general Bendigo community. Married at eighteen in 1863, Grace Davies bore her first child within a year of marriage, and by 1878 she had given birth to seven children. Selina Coath, married at 22, bore the last of her fifteen children in 1884. Her fertility was clearly exceptional; Grace Davies was closer to the average marital fertility of Bendigo women.⁴³

Until Bendigo was supplied with secure and clean water in 1877, infant death rates were high. In 1861 one in four children died before their first birthday. By the boom of the 1870s the rate had declined but was still high at around 150 infant deaths per 1,000 births.⁴⁴ While death rates declined when children were older than one, childhood diseases nevertheless took a toll on toddlers. Few families in Happy Valley escaped infant or childhood deaths. Early in 1867, Grace Davies was laid up with a sore throat, and just as she was getting better her son Edward James contracted scarlet fever on 14 January. In the middle of the night poor little May Louise was taken sick as well. After fitting for several days, she died on 17 January. John wrote:⁴⁵

On Friday afternoon we carried her to her last earthly resting place, she was buried by the side of James William in the White Hills cemetery being nearly 3 ¼ years of age. We feel her loss very much indeed she was such an affectionate little thing, she used to come to me and getting on my knee say, “I your own Papa Ed John is Mama’s boy”.

The mining landscape contained perils that created a hostile environment, and residents had to be aware of abandoned shafts and mining dams. Thomas Percy, the mate and business partner of John Bartlett Davies, cut across the Victoria Hill mining area on 25 October 1875 after a visit to the Ironbark Hotel. According to the publican he was not intoxicated and had drunk only one small glass of ale. The night was a dark one, and he did not carry a lamp or light. Crossing Victoria Hill, he turned off the track and fell into an unfenced section of Rae’s open cut. He was found the following morning by a couple of miners about 20 feet (6.1 metres) below the surface. His injuries were so severe that all the attending doctor could do was make him comfortable. He died on 10 December. At the subsequent inquest William Rae testified that he had fenced off the open cut with timber and mullock, but some thief, unknown to him, had stolen the timber fence. Adult illnesses were also an ever-present threat in an area with few sanitation facilities. In 1884 Robert Davies died of typhoid, leaving his widow, Caroline, with four young children.

Decline

Happy Valley and its residents enjoyed their most prosperous days in the first half of the 1870s. By the 1880s gold getting was becoming more difficult, and capital for exploration was scarce.

In the mid-1870s John Davies noticed a falling away of dividends and contemplated getting out of mining.⁴⁶ In 1874, feeling the stress of mining speculation and after a bout of ill health, he visited Cornwall. On his return he discovered that ‘dividends were scarce and shares had gone down in price’. Looking for other opportunities, he tried his hand at farming and purchased a small property at Myers Creek. He quickly realised that this was too small to become a going concern for his growing family. Grace also missed the community of her Wesleyan chapel. Returning to Bendigo he contemplated selling out of mining and figured that he could realise sufficient to make £3–4 per week.⁴⁷ In the end he stayed in mining. In 1878 he risked a large part of his capital

when speculators purchased shares from the successful mine owner Barnet Lazarus and offered these to the public. In September 1878 he hoped his purchase would ‘turn out well’, but in the following November he reluctantly conceded that the speculation in the ‘Lazarus [Company] did not turn out a good thing’ and mining was ‘not lively on the whole’.⁴⁸

John Davies’ journal ends in 1879. In January he wrote that Grace and he had often talked of making ‘a start to go to the old country’. Grace, he explained, was as anxious as he ‘and more so to get away from the heat and dust and the worrying life of mining’. In February 1879 they booked their passage and he ended his journal. From the Bendigo rate books it would appear that Davies let out his Happy Valley Road property from 1880 to 1882. He returned to Happy Valley in 1882 and continued his occupation as a carter until 1889 when he decided to try his hand as a mining share broker. In 1895 he purchased a house in Don Street and worked as a stockbroker until his death in 1908. Davies made the all-too-common mistake of remaining in mining too long, and when he died in 1908 he left no assets that were probated.⁴⁹

William Rae similarly found that by the mid-1870s his investments were not as profitable as they previously had been. In 1876 he accepted a proposal to amalgamate his claim with the Victoria Reef Quartz Company. For his claim he received 9,000 shares paid up to 2s on a par of 20s. His problems commenced when yields declined, and the company needed to make calls on capital. Across Bendigo the prosperous years of the early 1870s turned sour in the late 1870s when further exploration was required. Prodigal payment of dividends left companies exposed. The calling up of capital was required, and many investors once again lost their shares. There was a turn-around in the early 1880s, and exploration was helped by the introduction of rock drills. Yet the old problem of failure to set aside reserves continued, and in the second half of the 1880s profits dived once again. In these years William Rae found himself pressed to pay calls. Isaac Dyason, his brother-in-law, worried that Rae in January 1882 may have ‘connived’ with his mine workers to encroach on a neighbouring mine and share the gold. In November 1883 Dyason lamented their failure to sell their shares in the Victoria Quartz Reef mine when it had been possible at 30s per share.⁵⁰

Unemployment emerged as a major problem in 1879, and thereafter mining was a highly insecure occupation. In August 1879 local mine owners reacted to the decline in yields by attempting to cut

weekly wages from 45s to 42s. Miners in turn struck. Tensions were high, and Isaac Dyason, as George Lansell's manager, feared walking along Happy Valley Road to visit his fiancée Harriet Eastwood. The strike was resolved by the government threatening mine owners with a loss of leases. Led ineptly during the strike by Lansell, the mine owners caved in and restored the old wage rate. They turned, however, to an exploitative form of work known as tributing where the miner worked without wages in return for a percentage of the gold won. In 1880 tensions were further heightened when Lansell refused to pump water from claims near his '180' mine, throwing some 200 men out of work.⁵¹

Richard Pope took a major part in the 1879 strike and was a part of a deputation that waited on Lansell at the Menzies Hotel in Melbourne. For his part in this dispute he appears to have lost his job and for a while was forced to work at Woods Point. By the mid-1880s he had won a position as manager of the South Johnson Mine and for a few years was relatively prosperous. He led his neighbourhood Primitive Methodist Church and was a member of a local self-improvement society. But, when the fortunes of the Johnsons Reef Mine turned down, Pope, as manager, was blamed, and he was dismissed. Isaac Dyason had the unenviable task of giving Pope this news and felt sorry for him, but he did add in his diary that he had found the manager reading novels in the stope. Like many other miners in such circumstances, Pope realised that flight was his only option, and in 1886 he left for Broken Hill.⁵²

The decline in mining had a major impact on the mining suburbs of Bendigo. Happy Valley was particularly sorely hit. In 1889 a return of Bendigo mines demonstrated that the once prosperous Victoria Quartz Reef Mine employed a mere four wage workers. The remaining 25 miners eked out a living as tributers.⁵³ George Lansell's '180' mine won 34,607 ounces of gold between 1884 and 1887; for the next eight years the return was a mere 632 ounces.⁵⁴ Between 1873 and 1891 the number of occupied houses in Happy Valley dropped from 55 to 44. In 1891 less than half of the householders were miners, and, as a sign of the changing fortunes of the area, one quarter were widows (Figures 5 and 6).

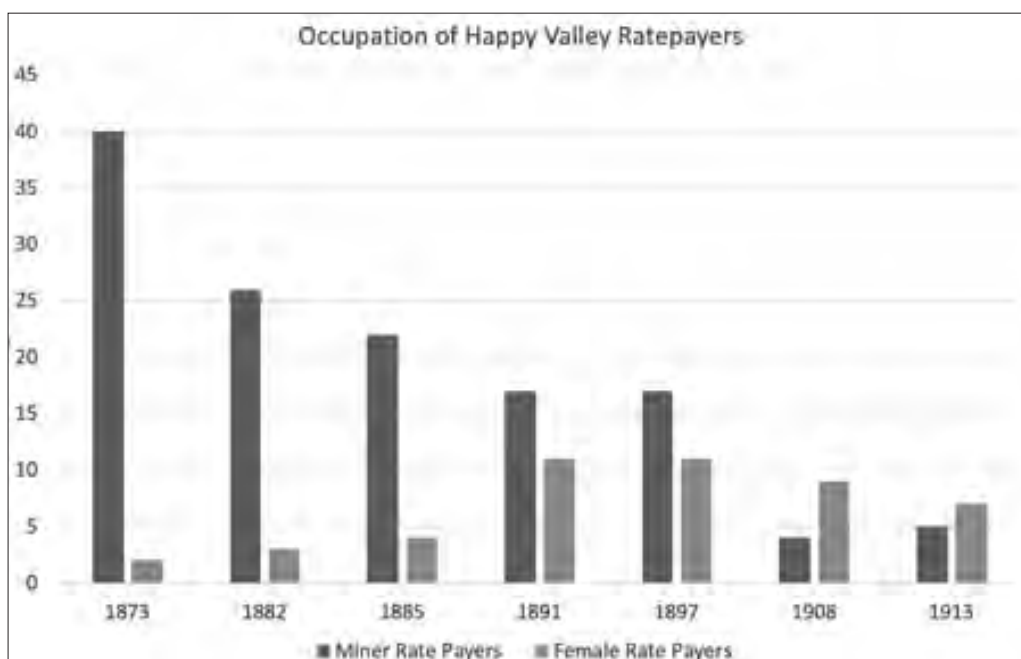


Figure 6: Occupation of Happy Valley Ratepayers (Rate Assessment Books 1873–1913)

Although this represented a natural ageing of the area, it was also a sign of a more intractable feature of the industry—mining was prematurely killing its workforce. Isaac Dyason compared mining to war; both made men callous. Mine accidents were a constant feature of mining life, and few miners would have escaped without at least a minor accident. Richard Pope, for example, suffered a painful blow to his thumb from a mining hammer in September 1874.⁵⁵ Regulation of workplaces reduced fatalities after 1878, but deep mining and the use of mechanical drills alarmingly increased the rate of deaths from miners’ silicosis or phthisis. Doctors were often imprecise in recording causes of death and had little understanding of miners’ phthisis. By the 1880s the scourge of what was often called miners’ complaint was evident among Happy Valley Road households. Richard Coath died in 1886 at the relatively young age of 50 from bronchitis, probably contracted from his years of mining. As early as 1883 the disease touched the family of Isaac Dyason when Harriet reported that her brother, Alfred, in Happy Valley was suffering from miner’s complaint. His illness was protracted and he did not die until 1899.⁵⁶

Although mining revived in the 1890s, the great days of the mines of the Happy Valley–Ironbark region were over. In this decade the centre

of mining moved north to the Moon group of mines in Eaglehawk, and the Bendigo goldfield enjoyed a brief Indian summer before the wartime crash. The population of Happy Valley Road remained stable over the 1890s, only to drop precipitously in the new century. By the 1890s the number of miner ratepayers in the region had declined substantially since the early 1870s (Figures 5 and 6).

Changing mining fortunes meant changing domestic fortunes. Jane Rae had been used to a comfortable life when her husband William died in November 1887 (Figure 7). On paper he was a wealthy man, leaving an estate of over £6,000. However, most of this was tied up in shares in the Victoria Quartz Reef Mine. He had survived by selling off shares, and at death he owned less than half of his initial allocation. The year after William died, Jane Rae faced the demand for calls on the remaining shares. Her brother-in-law, Isaac Dyason, wrote that she lived beyond her means, as if she had an income of £1,000 per year. To provide some support, Dyason organised the sale of further shares, and her children were old enough to help out. But the children caused problems. Tina married a Presbyterian minister whose congregation did not realise he had a fondness for drink. Her son Willie eloped in 1900 with her servant. She managed to hang on, however, and remained a resident in Bon Accord in Happy Valley Road until her death in 1913.⁵⁷

With a depressed mining industry, whether to stay or to move became a common dilemma among goldfields residents. In Richard Pope's case, as we have seen, the decision was forced upon him. John Bartlett Davies left Victoria Hill but moved only a few blocks away to Don Street. Isaac Dyason resisted moving. In the early twentieth century his son Clarence worked as a mining engineer (and was a man about town) in Melbourne, and his daughter Emily pursued a musical career in Melbourne and briefly in Germany. His second daughter Amy was her mother's companion before marriage. Harriet's family struggled to make a living in Happy Valley, and when a sister decided to shift to Melbourne Harriet tried to convince Isaac to move too. Isaac initially considered this a silly course of action, but he gave into pressure and purchased a home in St Kilda when his daughter Amy married a Melbourne businessman.⁵⁸

Not all residents could afford to make such moves. Selina Coath remained in her cottage long after the death of her husband. It is difficult to say how widows survived in these years. Selina Coath died in 1925,



Figure 7: Jane Rae and her daughter Christina c.1864 (Courtesy Madeleine Chow)

Jane Rae was born in Guernsey and arrived in Victoria in 1860 at the age of seventeen. She married William Rae in 1861. Five of their six children lived to adulthood.

having outlived her husband Richard by over thirty years. Her humble miner's cottage was an obvious bulwark against extreme poverty. Her many children helped her survive, and one son, Thomas, became a labour activist in the early twentieth century, while another, William, was the mayor of Boulder in Western Australia. The Western Australian goldfields were a common place of flight for young Bendigo miners in the early twentieth century. More desperate was the situation of Caroline Davies, who had four young children to support in 1884. For over twenty years she remained the ratepayer on a humble miner's residence area. While her occupation on the rate returns was given as widow, the 1912 federal electoral roll makes it clear that she actually eked out a living as a laundress. The same roll demonstrates that in a mining community there were very few jobs for women.⁵⁹

Conclusion

Victoria Hill is an important part of the gold-mining heritage of Victoria. Located close to the centre of Bendigo, the historic reserve illustrates the open cuts first used by reefers to exploit gold locked in quartz. On the site are engine beds of the great steam machinery that crushed the quartz and conveyed men and materials to underground workplaces. The same machines hauled the ore from below. The iron head frame of the Victoria Quartz Reef Mine was once instrumental in deep sinking. Over a hundred years since the peak of mining, the native bush that John Bartlett Davies enjoyed but also cut down has regenerated. The City of Greater Bendigo has constructed easy walking paths through the open cuts, and clear signage helps the visitor interpret the mining geology and machinery (Figure 8). Missing, however, is any interpretation of the lives of those who worked in the mines and raised families under the shadow of mullock heaps and sand dumps, and amidst the dust, fumes and noise of mining.

Fortunately, the area also has a rich written record to complement the material culture of mining. This record reminds us that mining was an inherently unstable industry where fortunes—both of the entrepreneur and the working miner—could quickly change. Unlike modern mining, nineteenth-century quartz reefing was labour intensive, the work was dangerous and unhealthy, and unemployment was an ever-present threat. To fully appreciate the heritage of Victoria Hill we must understand the lives of the women, men and children who lived alongside the mines. This is the challenge heritage managers must now face in their ongoing work of interpreting Victoria Hill.



Figure 8: Rae's Open Cut and the Victoria Quartz headframe August 2019
(Courtesy Charles Fahey)

Since 1875 the native vegetation has returned and visitor paths guide the walker safely through Rae's Open Cut where Thomas Percy was fatally injured in 1875.

Notes

- 1 The 1993 Heritage Study by Graeme Butler & Associates can be downloaded from the City of Greater Bendigo Home Page, at <https://www.bendigo.vic.gov.au/About/Document-Library/eaglehawk-and-bendigo-heritage-study-1993>.
- 2 Geoffrey Serle, *The Golden Age: A History of the Colony of Victoria 1851–1861*, Melbourne, Melbourne University Press, 1963; Geoffrey Blainey, *The Rush That Never Ended: A History of Australian Mining*, Melbourne, Melbourne University Press, 1963; and Weston Bate, *Lucky City: The First Generation at Ballarat 1851–1901*, Melbourne, Melbourne University Press, 1978, and *Life After Gold: Twentieth-century Ballarat*, Melbourne, Melbourne University Press at the Miegunyah Press, 1993.
- 3 Pat Grimshaw and Charles Fahey, 'Family and Community in Nineteenth-century Castlemaine', in Patricia Grimshaw, Chris McConville and Ellen McEwen (eds), *Families in Colonial Australia*, Sydney, George Allen & Unwin, 1985, pp. 83–104; Louise Blake 'Women and Community on the Upper Goulburn Goldfields', PhD thesis, Monash University, 2019; and Joan E. Hunt, 'Mining a Rich Lode: The Making of the Springdallah Deep Lead Goldfield Communities', PhD thesis, Federation University, 2016. For microhistory, see Barry Reay, *Microhistories: Demography, Society and Culture in Rural England, 1800–1930*, Cambridge, Cambridge University Press, 1996.
- 4 See Charles Fahey, 'From Kent to New Chum: The Families of Isaac Edward Dyason and George Lansell, 1871–1915', in Charles Fahey & Alan Mayne (eds), *Gold Tailings: Forgotten Histories of Family and Community on the Central Victorian Goldfields*, Melbourne, Australian Scholarly Publishing, 2010, pp. 62–90.
- 5 These assessment books were found in the Bendigo Town Hall tower in 1993 and have recently been deposited in the Bendigo Regional Archives Centre (BRAC). Unlike rate books, the assessment books listed whether the property was built on crown land as a miner's residence area, and how many persons lived in each house.
- 6 I have made a less detailed study of the neighbouring districts of Ironbark Hill and Gully. Where individuals have been named, certificates have been purchased or supplied to the author by descendants.
- 7 John Bartlett Davies, Journal, 1965.0005, University of Melbourne Archives, p. 1.
- 8 Charles Fahey, 'From St Just to St Just Point: Cornish Migration to Nineteenth-century Victoria', in Philip Payton (ed.), *Cornish Studies 15*, Exeter, University of Exeter Press, 2007, pp. 117–40, at p. 125.
- 9 Census of England, 1851, HO 107/1912.
- 10 Davies, Journal, pp. 3–4.
- 11 Davies, Journal, p. 15.
- 12 Davies, Journal, pp. 16–18.
- 13 Davies, Journal, p. 19.
- 14 Davies, Journal, p. 21.
- 15 Davies, Journal, pp. 22–3.
- 16 'Report of the Royal Commission, Appointed to Enquire into the Best Method of Removing the Sludge from the Gold Fields', *Victorian Parliamentary Papers*, 1859–60, Vol. 3; *Report of the Mining Registrar, Kangaroo Flat Division*, December 1859. See Susan Lawrence and Peter Davies, *Sludge: Disaster on Victoria's Goldfields*, Melbourne, La Trobe University Press, 2019.

- 17 Ralph W. Birrell, *Striking a Claim: Gold and the Development of Victorian Mining Law*, Melbourne, Melbourne University Press, 1998, pp. 106–20.
- 18 See, for example, a report on the Melbourne Exhibition describing a display illustrating the dividends of the Advance Mine, *Bendigo Advertiser*, 26 October 1866.
- 19 Peter McDonald, *Marriage in Australia: Age at First Marriage and Proportion Marrying, 1860–1970*, Australian Family Formation Project, Monograph No. 2, Department of Demography, ANU, 1974, see pp. 68, 75 and 79.
- 20 Davies, Journal, pp. 23–4.
- 21 Census 1861. The 1861 census is a particularly rich source and gives detailed descriptions of the various gullies and diggings on the Bendigo and other goldfields.
- 22 Davies, Journal, p. 24.
- 23 Davies, Journal, p. 29.
- 24 Davies, Journal, p. 26.
- 25 Davies, Journal, pp. 27–8.
- 26 Davies, Journal, pp. 34–6.
- 27 Davies, Journal, p. 37.
- 28 Davies, Journal, p. 45.
- 29 Davies, Journal, p. 65.
- 30 Mike Butcher and Gill Flanders, *Bendigo Historic Buildings*, Bendigo, National Trust of Australia (Victoria), Central Victorian Branch, 1987, pp. 107–08.
- 31 The changing occupations of Rae and Sterry can be traced through their marriage certificates and the birth certificates of their children. For the mines on Victoria Hill, see *Dicker's Mining Record*, 23 November 1861.
- 32 For the Ballerstedts, see Charles Fahey, 'The Ballerstedts and the Bendigo Quartz Reefs', *La Trobe Library Journal*, no. 30, December 1982, pp. 29–32.
- 33 For a vivid account of the sale of Fortuna, see Isaac Dyason, Diary, 25 February 1871, MS 10813, State Library Victoria (SLV).
- 34 *Dicker's Mining Record*, 23 November 1861. For Richard Coath's insolvency, see *Herald*, 13 November 1865.
- 35 This analysis is based on the 1866 rate books and the 1873 assessment book.
- 36 For Richard Pope's biography, see Charles Fahey, 'Richard Pope: A Miner's Life in the Inland Corridor', in Alan Mayne and Stephen Atkinson (eds), *Outside Country: Histories of Inland Australia*, Adelaide, Wakefield Press, 2011, pp. 135–58.
- 37 David Goodman, *Gold Seeking: Victoria and California in the 1850s*, Sydney, Allen & Unwin, 1994, pp. 166–7.
- 38 Davies, Journal, p. 23.
- 39 Davies, Journal, p. 35.
- 40 Davies, Journal, pp. 31–2.
- 41 Bendigo Assessment Book 1873. For the miner's cottage, see Tony Dingle, 'Miners' Cottages', *Australian Economic History Review*, vol. 5, no. 2, July 2010, pp. 148–61.
- 42 Diary of Richard Pope, 8 August 1870, and 18 January, 3 and 4 February 1871, MS 11918, SLV.
- 43 Bendigo Assessment Book 1873. The family histories were compiled from Birth, Death and Marriage Records. Marital fertility in Bendigo was high. In 1871, the 'Total Marital Fertility Rate' was 8.8 children and in 1881 the rate was 9.5. The figures were calculated from manuscript Birth Registers and the published census returns.

- 44 Calculated from Manuscript Birth and Death Registers.
- 45 Davies, Journal, p. 46.
- 46 Davies, Journal, p. 67.
- 47 Davies, Journal, pp. 74–7.
- 48 Davies, Journal, p. 83.
- 49 Davies' career after 1879 can be followed in the Bendigo City Rate Books.
- 50 Dyason, Diary, 27 January 1882 and 29 November 1883.
- 51 For the 1879 strike and flooding of mines, see Michael Roper, 'Inventing Traditions in Goldfields Society: Public Rituals and Townbuilding in Sandhurst 1867–1885', MA thesis, Monash University, 1986, pp. 297–37.
- 52 Pope, Diary, 19 May 1886; and Dyason, Diary, 19 May 1886.
- 53 Mining Leases, *Victorian Parliamentary Papers*, 1889, Number c10.
- 54 Mining Returns, Department of Environment, Land, Water and Planning (DELWP), held in the Epsom office.
- 55 Pope, Diary, 22 September 1874.
- 56 Richard Coath, Death Certificate 1886; Dyason, Diary, 30 August 1883; and *Bendigo Independent*, 24 January 1899. The problem of Miners Phthisis was investigated by Walter Summons. See his *Miners Phthisis: Report on the Ventilation of the Bendigo Mines*, Melbourne, Government Printer, 1906, and *Miners' Phthisis: Report of an Investigation at Bendigo into the Prevalence, Nature, Causes and Prevention of Miners Phthisis*, Melbourne, Stillwell & Co., 1907.
- 57 Dyason, Diary, 26 May, 8 June, 20 September, 13 and 20 November 1888, and 21 January 1900.
- 58 Fahey, 'Richard Pope', pp. 151–4; and Fahey, 'From Kent to New Chum', pp. 87–90.
- 59 Federal Electoral Roll, 1912. Of the 51 female electors in Happy Valley and Victoria Hill, 46 were simply listed as 'Home Duties'. The other occupations were: one laundress, two dressmakers, one tailoress and one saleswoman.