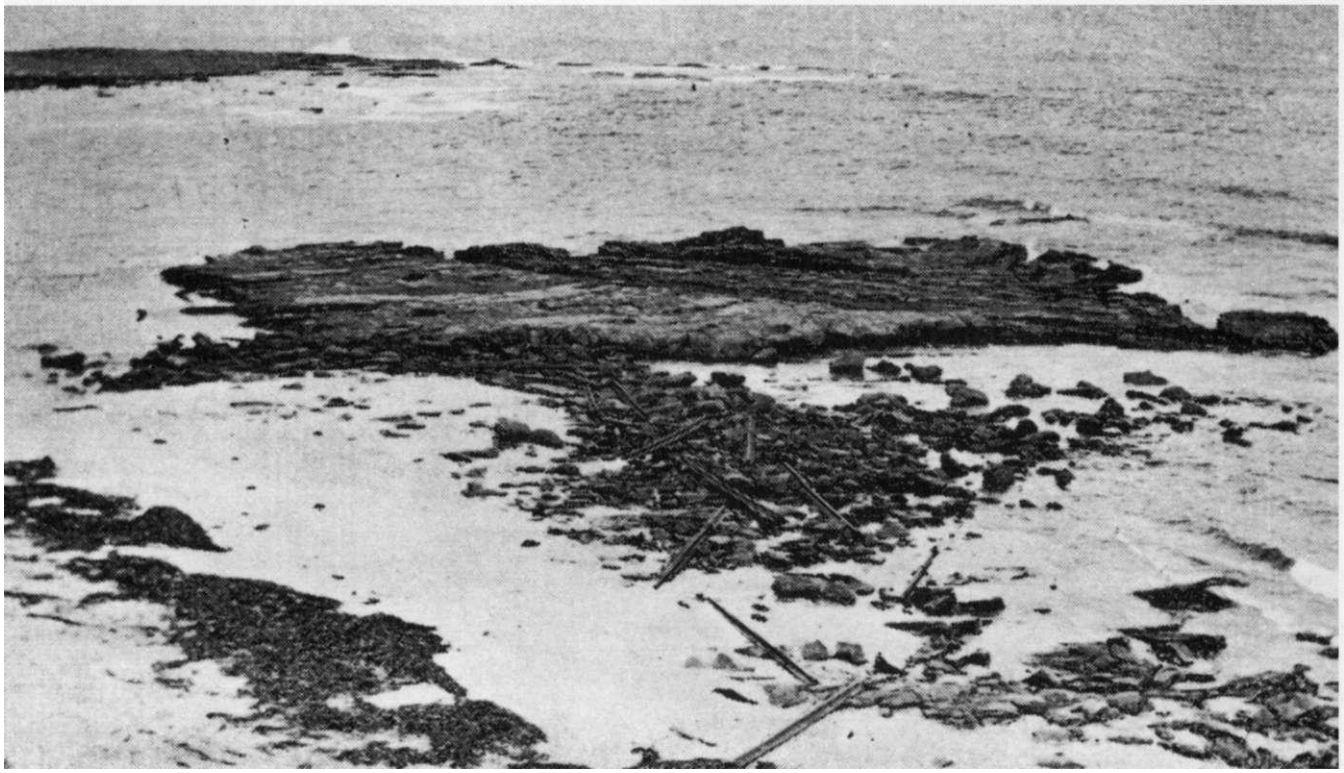


The Victoria Coal Company constructed a short length of tramway across the rock platform and sandy shore at the boat harbour to the east of the proposed terminus at Cape Paterson. Tramway materials were landed at a jetty constructed from the end of the rock platform and were carried over the tramway to firmer ground from where bullock teams hauled the rails and fittings to the railhead. By 2005 virtually all rails had been removed, but in the 1950s they could be found strewn across the shoreline and rock platform as illustrated in this view. Photo: J Coughlan Collection

Cape Coal

by Mike McCarthy

William Hovell's discovery of black coal near Cape Paterson, 7 kilometres south of Wonthaggi, in 1826[1] did not seem to excite too many people in the Colonial Government at the time. It was a long way from Sydney and plenty of coal was within much easier access to that town. However, the years that followed saw a series of unsuccessful ventures come and go, all aimed at exploiting the find. Along the way, Victoria's first commercial coalmine opened and then failed only to see, within a few years, the opening of the State Coal Mine at Wonthaggi in 1910.

Hovells' discovery was near what is now known as Wreck Creek (formerly Coal Creek), about 1.5 kilometres west of Cape Paterson and near present-day Harmers Haven. At the time, Hovell was part of the Westernport military settlement at Corinella established to ward off the French. His duties included the conduct of a survey of the nearby coast and it was whilst doing this that he made his discovery. The small quantity that he mined and despatched to Sydney failed to attract any reaction at all.[2] Victoria, as we know it, was then part of the New South Wales. With plenty of coal available at Newcastle there was no need to develop coalmines in such a far-flung corner of the Colony.

In 1835, Samuel Anderson settled on the Bass River and, over the following two years, he explored the area down the coast past Cape Paterson. He came across the outcrops that Hovell had described and opened up a track to the Bass River to cart coal for his own use. Again, because of distance and the ready access to local coal, the Sydney administration ignored the find as well as his requests for formal approval to mine the mineral commercially.[3]

In 1840, Superintendent La Trobe of the Port Phillip District visited Westernport and expressed interest in the coal. He sent H Cameron to investigate. Cameron returned speaking enthusiastically about what he had found. Subsequently, William Watson, an experienced miner arrived at Coal Creek in 1841 and, with the aid of subscribed funds, sank a shaft.[4]

The venture came to a premature end, however, following the murder of two sealers in the vicinity in October 1841. They were shot by members of a group of Tasmanian aborigines (the group included the well known Truganinni) who subsequently abducted Watson's wife and daughter. There is quite a saga about the pursuit, capture and trial of the two assailants, which is not particularly relevant here, but it ended in the eventual execution of the guilty two. The assault on his family proved too much for Watson and he abandoned the claim.[5]

A short time later, in December 1841, a Welsh miner, Richard Davis arrived in Melbourne and, hearing of the coal outcrops, headed south-east to the Cape where he found the seams originally sighted by Hovell. He sank a small shaft a little above the high-tide mark at what is now Harmers Haven, mined a small quantity and carried 25 pounds of it to Melbourne to show La Trobe in an effort to obtain a miner's lease. He was dismayed to find that La Trobe was virtually powerless to help. All such authority lay with the Government Departments in Sydney and in any case, at that time all rights to mine coal in the colony sat with the Australian Agricultural Company. La Trobe tried to help by offering a quarrying lease but Davis rejected this and set off in search of work at the Burra mines in South Australia.[6]

Davis returned to what was by then the Colony of Victoria in 1852 where he found work on the Castlemaine gold fields. It was around this time that the new Government announced a £1000 reward for the discovery of an 'available coalfield' in the Colony. Matters had changed considerably since 1827 when the Colonial Government in Sydney chose to ignore

During the short time that the Cape Paterson mine was in operation a small settlement of sorts existed close to the mine-head. There were several huts providing accommodation as well as a boiler house and windlass, the remains of which can he seen in this photograph taken probably in the 1920s. No trace of these structures remains today. *Photo: Vallance, Wonthaggi Historical Society*

the Cape Paterson coal deposits. The new Colony sought to free itself of dependence on expensive coal imported by sea from New South Wales. After some delay, Davis approached LaTrobe again for a mining lease that would enable him to prove the worth of the Cape Paterson field and claim the reward. He was (erroneously) told that 'the Newcastle Company' still held all rights to mine coal and that this was to continue for a further seven years but he was again offered a quarrying lease over 700 acres near the coal outcrops and this time in conjunction with a partner, Thomas Bury, he accepted.[7]

Davis sank a shaft a short distance inland from the cliff-face west of the Cape and named the shaft 'The Reward'.

A good, well-timbered shaft found the upper of the two main coal seams (named 'The Rock') 60 feet from the surface. He had insufficient funds to sink the shaft to 'The Queen', the second of the main seams but he felt he had done enough to claim the reward. Unfortunately, despite his best efforts over a number of years, Davis had great difficulty in convincing those in authority to pay him the £1000. Selwyn, the Government geologist, in particular, seemed to stand in Davis' way probably because, in his view, Hovell and not Davis originally discovered the presence of coal at Cape Paterson.[8] Davis was eventually to receive the reward, a sum that barely met his expenses, but only after a Parliamentary Report in 1863 recommended it.[9]

Davis' Reward shaft lay on the west side of Coal Creek. Action was also underway on the east side where, on the strength of reports of Davis' efforts, Nathaniel Levi had established the Victoria Coal Company in 1859.

Levi, a member of the Victorian Parliament, described himself as an 'Auctioneer'. He had raised £20,000 from share issues and appointed Richard Davis as the company's manager.

Davis sank three shafts under the company's name. The first was virtually on the beach midway between present-day Harmer's Haven and Cape Paterson; the second was at the base of the old coastline, a short distance inland, while the third was at the top of the cliffs overlooking the ocean. Levi's son, Henry, took over management in 1863 and sank two further shafts, numbers 4 and 5 between the existing Nos 1 and 3 shafts. Number 5 was quite close to the Number 4 and was to serve as an airshaft for mining operations. A common whim served the two shafts and, 50 feet underground, a drive connected them. The company mined coal from a two feet thick seam to the north and west of the shaft.[10] In total, close to 3000 tons of coal was raised with 1933 tons despatched, the bulk of it by bullock wagon to the 'Boat Harbour', as it was then known.[11] This is a small cove just over a kilometre east of the Cape, which protects it from the west but leaves it very exposed to weather from the south and east. Here the coal was bagged and loaded into whaleboats tied to a jetty built from a rock platform. This was the only means by which the coal could be transported to ships moored offshore. It cost the company 18 shillings per ton to transport the coal from the mine to the ships. The company intended this to be the principal shipping place for its activities but its suitability became questionable after the destruction of the jetty in bad weather on several occasions.To make matters worse, moorings provided by the government about a kilometre and a half off-shore shifted in a storm and silted over. With insurers then refusing to cover vessels visiting the Cape it became clear that the Boat Harbour was not the answer Levi and his supporters were seeking.[12]

However, even if the moorings had not moved it was unlikely that shipping of coal from here could have continued for long. In 1865, Captain A Keen commented to a Parliamentary Enquiry;

I told Mr. Levi that, before he attempted to ship one bag of coals, that he could not ship it. The first thing is, they could never get vessels to

go there, it is not any harbour at all, you might as well anchor off Cape Otway, or Cape Schank. It used to be regular life-boat work to go off there with coals, it cost them far more in bags, than the coals would sell for in Melbourne, and the cartage.[13]

The company abandoned the boat harbour as a shipping place and tried using the jetty at Inverloch, seven kilometres to the east. Although this represented a well-protected loading point for whaleboats, the sandbar at the entrance to Andersons Inlet, upon which Inverloch sat, was an unacceptable hazard. A far more substantial solution was needed that would allow ships to be loaded directly from a jetty. The company returned to an earlier plan and chose the Cape itself where a rock platform jutted into Bass Strait and provided some protection from the seas. A jetty constructed from the shore on the east side of the rock platform would service the ships and a tramway would link it with the mine.

This appeared to be the only potentially viable answer because, despite Cape Paterson being only a two-hour drive from Melbourne today, in 1860 it was quite remote. No roads existed to the area and the Koo-wee-rup swamp to the north meant that any heavy loadings had to take a circuitous route to the north-east or had to go by sea. However, such a project was beyond the means of the Victoria Coal Company so Nathaniel Levi petitioned the government for assistance.

The government had already rejected an initial request for a jetty at the Cape, back in I860[14]; however, with the other options proving unsuitable, Levi persisted. In August 1862, the government relented and agreed to aid the venture in a more substantial way. A loan of rails and a grant of £1000 would assist the construction of a tramway, with payment linked to the completion of works to that value.[15]

Nathaniel Levi wasted no time in getting things moving. In October 1862, tenders were called for the construction of one mile 30 chains of tramway from the company's No 3 shaft to the shoreline a few hundred metres east of the point of the Cape. The lifeguard shed on No 1 surf beach at Cape Paterson marks the spot today. The successful tenderer was John Higgins.[16] Henry Levy provided oversight for the company from early 1863.[17]

The Barlow rails at Cape Paterson were joined by connection plates. These were 32 inches in length and can be seen protruding from the end of the rail in this photograph. Photo: Mike McCarthy

During late 2004 the Barlow rails at the proposed terminus of the Victoria Coal Company's tramway emerged from the dunes on the shoreline after stormy weather. The design of the rails is clearly evident in this photograph. The hollow centre of the rail was intended to be bedded within gravel to maintain stability. Photo: Mike McCarthy

The rails provided were mostly Barlow rails lifted from the Melbourne to Geelong railway and from the Geelong sidings. In all probability, they were the original rails used on that line. They were mostly 73 pounds per yard in weight and measured 10.5 inches across the base, *2.5* inches wide on top and stood *4.5* inches high.They came in 20 feet sections. Included with them were 12 sets of points and crossings, all Barlow rail, that had been 'thrown out in the Geelong yard', for which the Railways Department demanded *£4* per ton, and 6500 to 7000 'rivets' for use with the rail. Included were also some'T' section rails.[18]

Barlow rail differed from the rail that we are so familiar with today. It resembled an inverted 'V' but with a rounded top and flattened bottom points. Gravel filled the hollow in the middle of the rail. The rails were kept in gauge by iron cross ties *(4.5A* inches by *2.5* inches angle iron at Cape Paterson) and were joined by fishplates, 32 inches long, that fitted beneath the rail at each joint.[19]

The Company received the bulk of the rails at the Geelong jetty on 21 November 1862 with the remainder handed over at Williamstown in June 1863.[20]

By early 1863, the schooner *Friends* had delivered all but 130 of the rails to the 'Boat Harbour'.The ship anchored off-shore at the moorings and whaleboats were loaded for the perilous journey through the surf to the beach. Predictably, a quantity of crossties was lost overboard in the process.[21]

The jetty formerly used for the despatch of bagged coal now provided the means of delivery for the first 60 rails. A short length of tramway was laid across the rock platform and sandy beach to a break in the cliffs that provided access for a bullock team to collect the remaining rails and fittings.

It was perilous enough trying to carry away bagged coal from this location. Conveying iron rail and fittings from ships and then offloading them in the heavy swell that is normal

here added to the danger and more than one rail had to be retrieved from beneath the waves alongside the platform.[22]

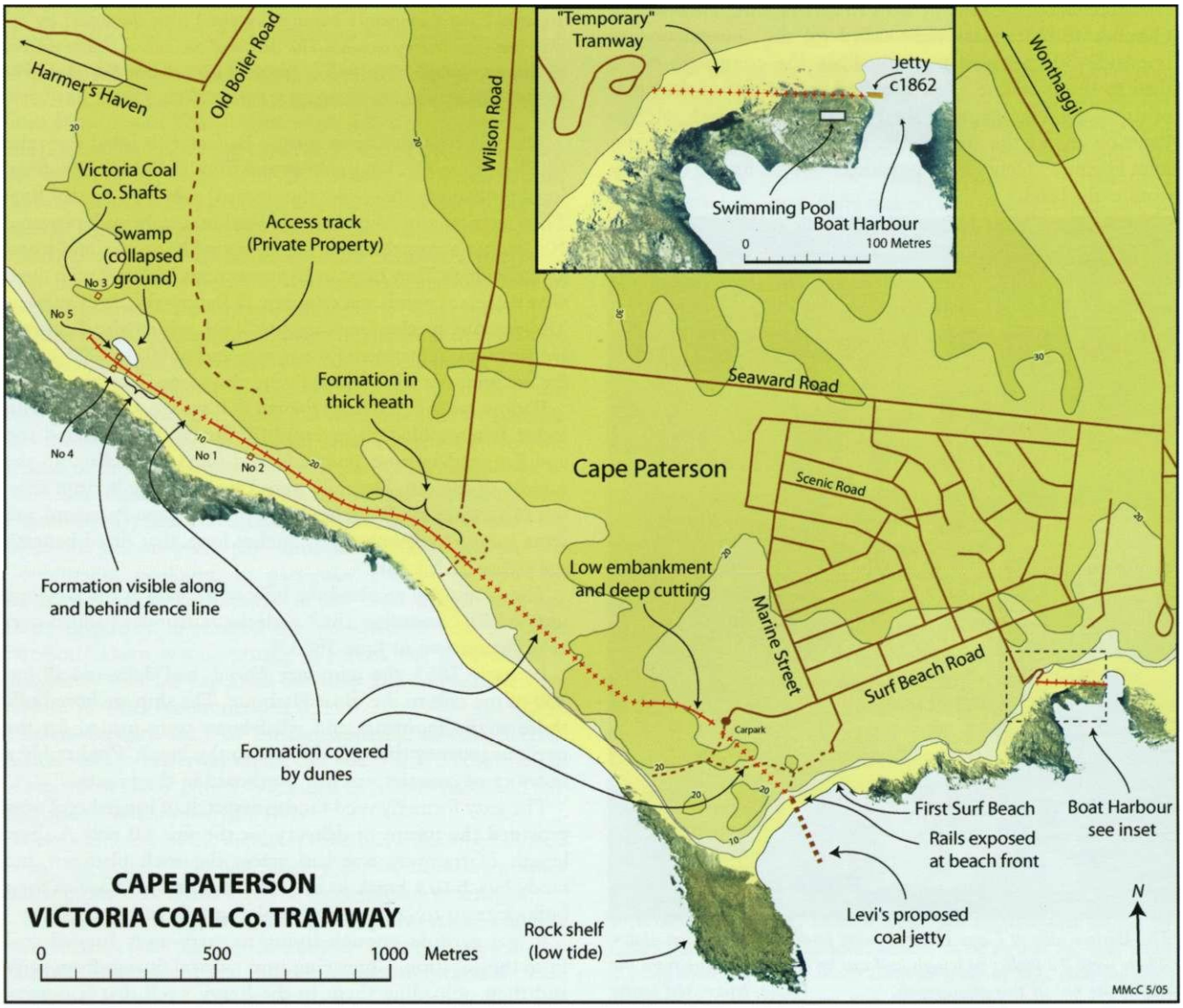
Despite the difficulties, the rails and other equipment found their way ashore and construction progressed rapidly. A camp at the mine site provided accommodation for the labourers. On 22 July 1863 H Christopherson, a Railways Inspector, reported to Higinbotham, the Engineer-in-Chief of the Victorian Railways Department, on the progress of the tramway He stated that the line was complete or at least as complete as it was going to get for some time. The detail he provided in his report is useful. He indicated that the tramway was built to 5 feet 3 inches gauge and commenced 42 feet from the mouth of the mineshaft.[23] It ran one mile 30 chains and 50 links to the bluff. He referred to an 'incline to the jetty' which suggests that a jetty had been built at the proposed terminus but, in fact, certainly referred to where a jetty might be built. The embankments were mostly eight feet wide although one was nine feet and another was ten feet across at the top. The slopes were one in one; quite steep given that all material was sand. Side cuttings provided some of the sand for the embankments. The tramway passed through sand hillocks where the cuttings were 10 to 12 feet wide at the base and the side slopes were again 1 in 1. There were several timber box cuttings.[24]

The Cape Paterson terminus comprised two sidings built using 66 pound per yard 'F class T' rail as well as some of the Barlow rail.[25]

Higinbotham did not present a very favourable opinion of what he saw. He indicated that because all foundation material was drift-sand neither the cuttings nor the embankments could be expected to last for any length of time. Side drains had existed along the route but water trickling through the cutting walls was already filling the drains with sand and, at some locations, sand had covered the rails. He reported that the permanent way was very uneven in height, the curves were irregular and sections intended to be straight were not so in many cases. He found that the embankments were not wide enough. The Barlow rails, when laid, were 6 feet 5 inches from outer edge to outer edge and were therefore only *9.5* inches from the embankment edges. He expressed no confidence in the carrying capacity of the tramway as built. Because the main line rails did not have sleepers, he believed they could not sustain much traffic and, at the time of his inspection, were already depressing embankments through their own weight! Barlow rails, by design, should not have sleepers but should sit within good quality gravel. Without this, they lose their structural integrity and cannot carry heavy loads. Cape Paterson sand is a long way from 'good quality gravel'!

Higgins, the contractor, had valued the work at £1462 but Christopherson put it at £1085, which set it at just over the benchmark for the Government grant of £1000. The following August Christopherson certified the work complete and the money was paid.[26]

Unfortunately, no use was ever made of the tramway. There



The Victoria Coal Company tramway formation can be seen passing beneath the wooden fence posts to the right of centre and then following into the distance parallel with the shoreline. Photo Mike McCarthy

was no point in using it given the absence of a substantial pier, at least 400 feet in length, to load the coal into ships at the terminus. Although the company was capitalised to £20,000 it had expended almost all of this in buying equipment, leasing vessels for coal transport, constructing the jetty at the boat harbour, sinking the five shafts and delivering material to Cape Paterson

Operations at the Victoria coalmine ceased while Levi and his son again sought government assistance to construct the jetty and possibly a breakwater at the Cape Paterson tramway terminus but, as before, they could not get support.[27] Exasperated, Levi abandoned the tramway and looked to the west to Griffiths Point. A 3 feet 6 inches gauge tramway built by the Westernport Coal Mining Company ran from Kilcunda to a good deep-water jetty there. In 1888, Levi successfully petitioned Parliament for authority to construct an eleven-mile extension of the tramway to Griffiths Point (now San Remo) to serve his Cape Paterson coalfield but the exhaustion of subscribed capital and the non-payment on calls on company shares prevented its construction. Levi travelled to Britain in search of subscribers and returned having raised sufficient capital to complete the rail link to Kilcunda, only to be told in 1899, when he returned via Adelaide, that the tramway to Griffiths Point had been dismantled. Without a viable transport link to Melbourne, the venture was doomed.

Levi fought hard over many years to keep the scheme going but with no success and at one time proposed an ambitious plan to link the mine to Western Port Bay by canal but nothing came of it.[28] He and his estate continued to meet the lease payments on the land until 1909, two years after his death.[29]

Knowledge of the existence of the Cape Paterson tramway soon faded from memories and essentially, it became forgotten. However, this was to change for a brief period in 1917 when the Melbourne *Herald* reported its rediscovery by none other than the Premier of the State, Sir Alexander Peacock. Under the banner 'Premier finds unused line', the article described how Peacock, when inspecting the recently opened Powlett coalfields and the newborn town of Wonthaggi, only a few kilometres from the tramway, stumbled across the rails whilst at Cape Paterson.[30]

He wanted them removed and incorporated into railway extensions that were underway in Victoria at that time. One can only imagine the consternation of the Victorian Railways Commissioners of the day on being told to incorporate a mile of badly rusted Barlow rails into their system!

Subsequent to Peacock's request, E Webster, a Victorian Railways draughtsman, was despatched to the Cape to report on the rails. What he found confirmed that little had changed over the half century since all work on the tramway and mine had ceased other than the encroachment of sand that Higinbotham had predicted all those years ago. He found that 400 metres of the tramway remained relatively clear, while sand and scrub covered 966 metres with the depth varying between a metre and eight metres. Some cuttings had completely filled in to the extent that the rails seemed to disappear into the side of a hill. Corrosion had attacked the exposed rails from the waist down. Webster was able to report that they were of no use to the Railways Department and, subsequently, the tramway returned to its previous obscurity.[31]

Other remains still there at that time included a derelict shed housing a vertical boiler, probably associated with a pump, a windlass and the shaft with piping disappearing into its depths.

In the late 1950s and early 1960s, I can recall as a lad of around eight to ten visiting the Cape on family outings from

Warragul. I have strong memories of clambering over the rails on the rock platform at what had been the company's boat harbour and can clearly recall the iron tie rods that kept the rails in gauge. I thought it odd that there were no wooden sleepers and can remember borrowing a ruler to measure the gauge (frightening really!). At that time, the rails followed their original alignment from beneath the sand to the rock edge but I can remember how twisted they were, most probably from wave action during storms. Other rails were scattered on the beach mostly buried in the sand while others lay in the water off the edge of the rock platform where the wooden jetty existed in earlier times. I wondered at the time where this railway had run from. Seeing it again was quite something to look forward to each time my family visited the Cape.

In 2005, over 140 years after tramway construction was complete, most metallic remnants have long gone. Even the rails at the boat harbour have disappeared, probably in the name of safety, as Cape Paterson is now a popular holiday location. The line of boltholes that originally secured the rails remain on the rock platform and off its edge, beneath the waves, are a number of the Barlow rails although some have very recently been removed.

Of the mine and the main tramway route, enough remnants remain to make it interesting. The mineshaft is no more; but an innocuous depression hidden in the scrub on the ocean side of the property fence marks its location. The tramway formation is evident 42 feet (13 metres) north of the shaft as Christopherson had reported in 1863! It actually commences around 200 metres west of the shaft in what is now freehold land. It curves past the shaft and angles away beneath the property fence to enter the beachfront reserve where it remains for the rest of the distance to the terminus. Anyone visiting this end of the line needs the permission of the property owner as the only access is through a farm at the end of the appropriately named 'Old Boiler Road'.

The embankments, over the next 500 metres or so, are evident in amongst the thick heath and coastal grasses but with no sign of rails. Scrub has now grown over the alignment and stabilized much of the formation but this is certainly not the case with respect to the cuttings in this section, of which there were several. No evidence of any of the cuts through the dunes remains. Nature has reclaimed its own!

At the bottom of Wilson's Road, a maintained walking track gives access to the beach. It crosses the tramway formation but you have to look hard to find it. The problem here is that the native heath covers everything and has blended the tramway formation into the surrounding landscape very effectively Nevertheless, you can find it; you just have to venture bravely into the thick scrub, scratch around a bit and hope that you will be able to find your way out again!

Closer to the Cape Paterson terminus the tramway curved around a hill that marked the point of the Cape. The hill has protected a section of formation about 200 metres in length from the sand drifts that have obscured much of the remaining earthworks. In this section is a cutting approximately 4 metres in depth excavated on a curve. Coastal scrub disguises it today and at first glance, it seems like a gully amongst the sand dunes. However, the regularity of the curve and the vague remnants of a tramway formation leading in to it point to its true origins.[32]

At the terminus, the point where the tramway reached the beach is now marked by a shed owned by the Cape Paterson Surf Life Saving Club. Interestingly, beside the shed and protruding from the sand bank are four Barlow rails! The tramway was in a deep cutting and on an incline at this location. However, along with most other cuttings along the way, sand had filled the excavation probably by 1900. The cutting held two sidings in addition to the mainline so was much wider than other cuts along the route. Consequently, a remnant remains in the form of an obvious deformity in the foreshore profile when viewed with your back to the sea, although much of the excavation has filled with sand. When first laid the tramway extended beyond the cutting onto the beach but sometime before 1950 locals removed the rails, again, probably for safety reasons. Recently rails have emerged again as the sand dune has eroded back from the shoreline. A tantalising thought is the likelihood that a set of Barlow rail points remain buried in the dunes near the beach

Up to the 1920s, the rails at the proposed terminus on the surf beach at Cape Paterson emerged from the dunes that had covered them over the previous 60 years. They sat in the sand pointing in the direction of the pier that was never built. Photo: Wonthaggi Historical Society

In the 1940s an enterprising farmer saw opportunity in the rails lying along the tramway formation and extracted approximately 12 lengths to use to build farm structures. A shed was built using the rails as upright supports and it remains in use today with the Barlow rails clearly evident at the front. *Photo: Mike McCarthy*

terminus. It is also likely that rails remain deep within the dunes above the beach along the route, as, over the years, scavengers have recovered only those visible. However, what is visible does change. A local farmer noticed rails protruding from the dunes in the mid-1940s. They had gradually emerged as the dune shifted. He attached a chain to the rails, hauled them clear of the sand, and eventually collected ten lengths to use as poles to construct a shed. In 2005, the shed was still in use with the rails in good condition.

It is ironic that only a few years after Levi's death the Victorian Government opened up the Powlett coalfields only a few kilometres away from the Victoria Coal mine. The Wonthaggi railway opened in 1909 to serve the mines. Although the small seams found at the Cape would probably have made the mine unprofitable in the end, there is no doubt Nathaniel Levi would have petitioned the government to extend the railway the short distance to his workings. Levi's persistence would have seen the line built, the mine made operational and, ultimately, his dream come to fruition. With his death, however, the drive to open the Cape coalfield also died and, with the exception of one or two minor efforts in later years, nothing further was done.

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