Return to previous file: Part 2

Figure 15. The second Homeward Bound Battery. The tramway can be seen leading from the mine on the hill above. Water from a race powered the mill and the waste water flowed via a waterfall into the Rich Burn.
Photo: Museum of New Zealand Te Papa Tongarewa (c.014899)

7.9.1 Archaeological description

The archaeological evidence of the Homeward Bound mines consists of three battery sites, the aerial cableway, the mines and a track climbing the hillside above the second battery site (see Map 4, p. 24 and Fig. 18). When walking up the Rich Burn, the first feature to come into view is the large battery (Fig. 19, p. 30 and 'S' on Maps 3 and 4, pp. 24–25).

This is the third Homeward Bound Battery, moved to the site from Waipori in 1910. It is a ten-stamp mill, manufactured by the Sandycroft Foundry of Chester, England. The heavy frame timbers still bear the marks cut into them to aid reassembly. Extensive stabilisation and timber preservation work has recently been carried out on the structure, including the construction of a roof. Scattered around are various items of battery plant, including a berdan and a

Figure 16. Third Homeward Bound Battery, date unknown. *Photo: Lakes District Museum, Arrowtown.*

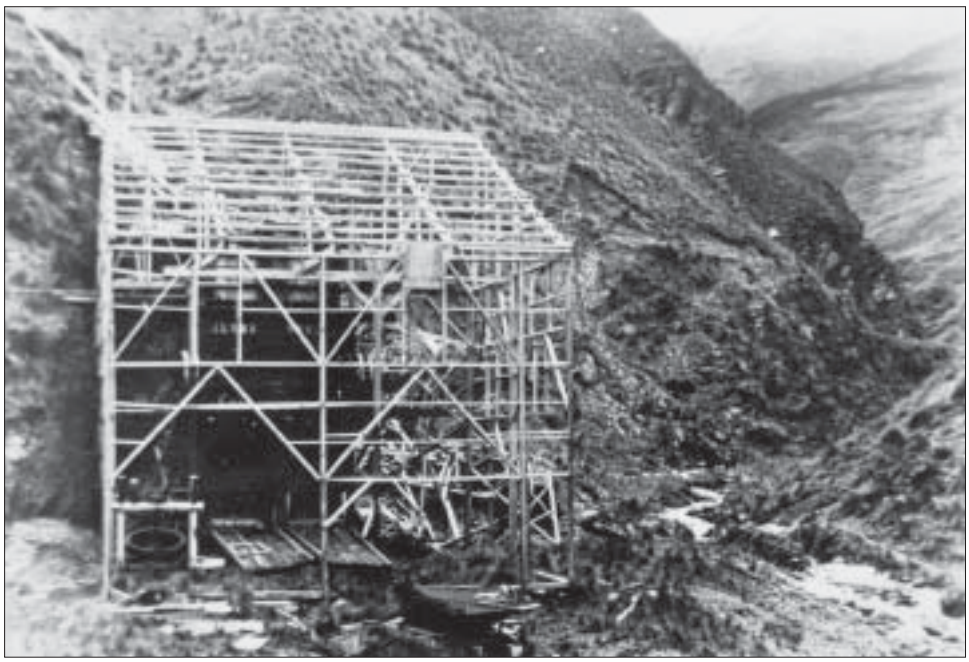


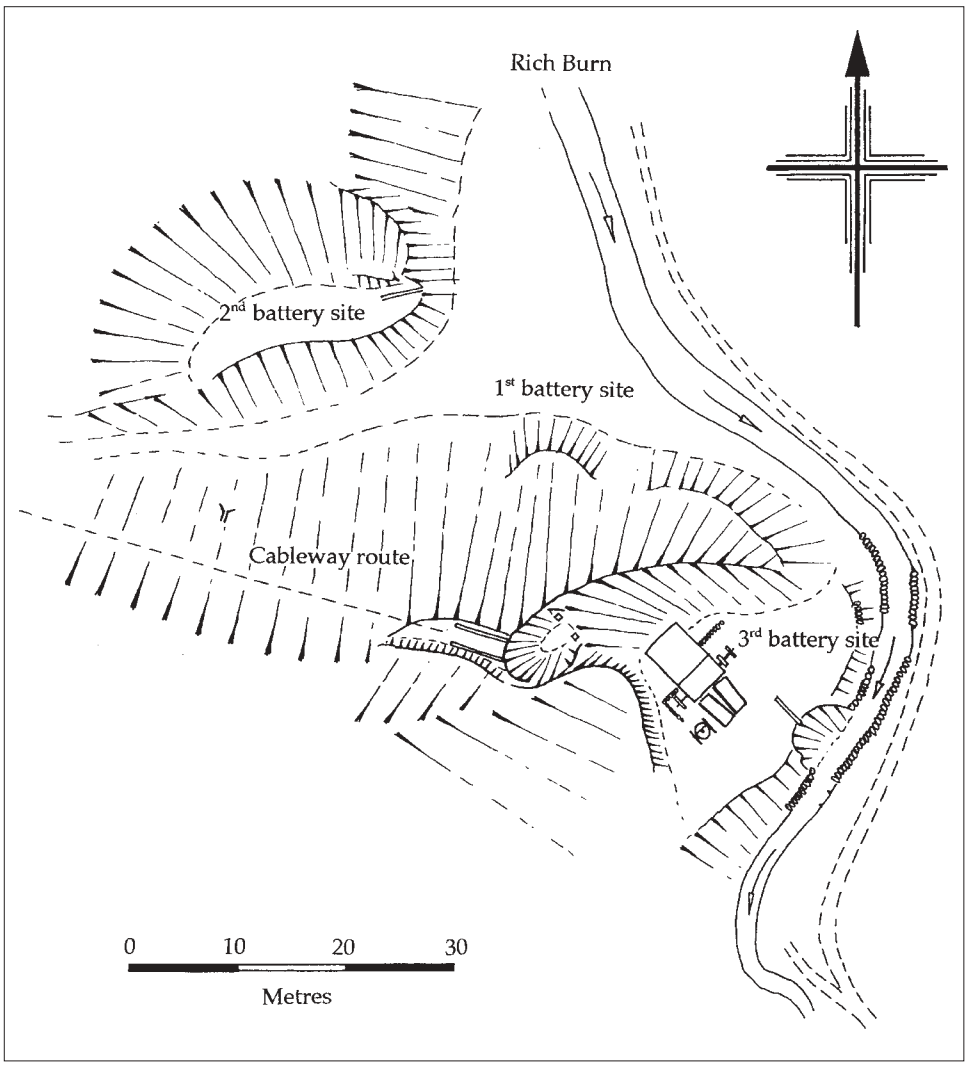
Figure 17. Third Homeward Bound Battery, in a state of disrepair, c. 1930. *Photo: Alexander Turnbull Library, F29659½.*

disassembled Wilfley concentrating table. A jaw rock crusher is sitting in the battery structure, although it was originally mounted to the rear and above the mill.

The battery was originally housed in an iron and timber battery shed, of which nothing now remains. Contemporary photographs show it complete (Fig. 16), and at a later date when the iron had been stripped away (Fig. 17).

The two battery sites of the first Homeward Bound Company (1876–84) were located nearby, on either side of a small gully just past the surviving battery (Fig. 18). The 'Little Wonder' of 1876 was down near stream level, and while the site was marked by a few pieces of rusting iron when visited in 1993 (Petchey

Figure 18. Homeward Bound Battery sites.



1996: 170), subsequent flooding has obscured any evidence. The site of the second battery (1879–84) is on a terrace above the Rich Burn. The site currently consists of a terrace cut into the hillside, with scattered sections of corrugated iron, tins and pieces of cast iron. No items of machinery remain, but the end of the head race and the outflow of the tail race can both be found, each cut into the rock. The tail race discharged straight over the rock face, into the stream below.

Above the existing battery structure (Fig. 19) is the site of the ore hopper and terminus of the aerial cableway. The cableway pylons with their cast iron guidewheels follow a straight line up the hill to the site of the top ore hopper and cableway return wheel (Fig. 20). The return wheel is very similar in design to the return wheel at Skytown, see Section 9.6 below. On the hillside above the hopper is the mullock heap from the upper levels of the mine, one drive of which is still open.

Climbing the hillside to the north of the cableway is a zig-zag track which ascends to the ridge top. From there an indistinct track can be followed which leads to the series of workings along the line of strike, including the Lady Fayre shaft and the Golden Link, before dropping into Sawyer's Gully and the site of the Maryborough/Premier operation (see Chapter 10 below).

Figure 19. The remains of the third Homeward Bound Battery (ex OPQ). The roof on the structure is a recent addition to slow down the deterioration of the timbers. The berdan is in its correct position, but the camshaft and Wilfley table have been dismounted. *Photo: P. Petchey.*

Figure 20. The Homeward Bound aerial cableway top return wheel. *Photo: K. Jones, Department of Conservation, Wellington*

7.10 SUNRISE BATTERY SITE AND OFFICE

The history of the Sunrise Mine is described below in Chapter 11 below. The mines were located high up the mountain, while the battery was built much lower down beside the Rich Burn, some 600 m upstream from the Homeward Bound site.

7.10.1 Archaeological description

The site of the Sunrise Battery and the surviving office building is on the true right of the Rich Burn ('Z' on Map 4, p. 25), near the confluence with Advance Creek. The battery site consists of a level area beside the creek, protected from erosion by revetment. There is a line of schist piles built along the back of the

terrace. The machinery has been removed (and partly comprises what is now Anderson's Battery), and so little remains on site. There are a few stamper shoes scattered about.

The mine office is located just upstream of the battery site (Fig. 21). It is a small weatherboard building with a corrugated iron roof. Floods have regularly washed through it and gravel has accumulated around and in the building so that the ground level is now at the base of the windows.

On the other side of the stream from the building, at the confluence of Advance Creek and the Rich Burn, is the pipe inlet structure for the Homeward Bound pipeline that supplied water to the third (existing) battery. The pipes themselves have long since been removed.

7.11 HUT SITES AND TRACK TO ADVANCE PEAK

About 700 m upstream from the Sunrise office the track forks, the upper branch climbing up to Advance Peak, and the lower branch continuing on towards the Premier Mine in Sawyer's Gully (see Chapter 10 below).

At least five hut sites were located near the fork in the track, four on the true left and one on the true right of the Rich Burn. It is not clear whether these huts were associated with the Premier Mine or some of the Advance Peak workings, although it is possible that they were used by a mixture of miners from the various companies working in the area.

Figure 21. The surviving building at the Sunrise Battery site. *Photo: P. Petchey.*

8. Scanlan's Gully (Map 3)

A number of mines operated in Scanlan's Gully (sometimes Scanlan Gully or Scanlon's Gully) and its branches, of which the largest and most profitable was the Tipperary. Others were Anderson's Mt. Verde Mine and Balch's Mine.

8.1 THE TIPPERARY MINE

The Tipperary Reef was the first main line of lode opened at Macetown, and the Tipperary Mine was to become one of the most productive of the Macetown quartz mines. The lode was first opened out in 1875–76 by Thomas Hall. Two versions of the discovery exist. Veitch (1972) recounts that Hall pegged out the most promising outcrop in the valley, and then allowed a group of Chinese miners to sluice away the soil overlying the lode, thus getting the ground opened out at no cost and only a little loss of gold. Ng (1993: 229) gives a similar account. Miller (1966: 163) gives a slightly different version, whereby Hall followed a trail of dirty water coming down Scanlan's Gully, finding a small group of Chinese miners sluicing away the free gold on the cap of the reef, unaware of their discovery. Hall quickly pegged out the reef. Whichever version is correct, Hall was apparently guilty of some dubious business practices, and the mine was embroiled in litigation until the beginning of 1878. It then produced some very good returns, including a 501 oz cake of gold in December 1881 (Veitch 1972).

In 1879 a battery was constructed in Scanlan's Gully (A.J.H.R. 1880 H26: 26). It consisted of ten heads of stamps, a berdan and a buddle, driven by a Whitlaw water turbine 3 ft in diameter (A.J.H.R. 1886 C4: 20; Veitch 1972). Until that time much of the Tipperary ore had been crushed at the Public Battery.

To raise ore in the mine, a water balance was constructed. This consisted of a wheeled tank placed on an inclined tramway with the same length as the depth of the shaft in the mine. The tank was filled with water at the top of the incline, and was then allowed to descend to the bottom. The tank was connected by a cable to a box in the shaft, in which the ore was placed. The descending tank raised the ore, and then the tank was emptied and was drawn again to the top of the incline by the descending ore box in the shaft, ready for another load (A.J.H.R. 1886 C4: 20). Although this was ingenious, it was too slow in operation for the efficient working of the mine (Veitch 1972).

This, amongst other problems, caused the mine to close in 1888 (Veitch 1972). It was reopened in 1893 after the West Argentine (Westralia) Gold Company (Ltd) was floated and raised the capital to start operations. The mine was put back into working order and a tramway laid to the battery. Work in the upper levels of the mine was suspended, and a low-level adit was constructed, reaching a length of 1927 ft before the old workings were encountered in February 1886 (Veitch 1972).

The company also constructed a furnace at the battery with which to fire the concentrates after processing in an attempt to improve gold recovery. This was finished in January 1897 (Veitch 1972).

In 1898 a new winding plant was installed to raise ore from the lower workings to the main adit. A 20 hp oil engine was installed in a winding chamber measuring 30 ft by 9 ft, located 2000 ft underground. Unfortunately, the fumes from the engine made the mine unworkable, and despite some modifications, including a change in fuel, the delays and expense in the scheme caused the mine to be shut down again (Veitch 1972).

In 1903 the Indian Glenrock Company took over the mine and repair work commenced. It was found that the chamber on the hauling shaft had broken down, and the tramway had been damaged by floods. The mine was once again shut down in 1905, this time due to other problems within the company that owned it (Veitch 1972).

8.2 BALCH'S MINE

Balch's reef (the New Caledonia) was discovered in Caledonian Gully, off Scanlan's Gully, by Richard Balch in 1905. An early crushing of 25 tons of quartz yielded 52 oz 10 dwts of gold, and this encouraged further work. The good yields lasted for a while, with crushing being carried out at the old Tipperary Battery, but by 1907 the stone had given out, and work ceased (Veitch 1972). The mine was sold to the Anderson Brothers (Beaton 1971: 46).

8.3 ANDERSON, HANNAH AND PARTY

Anderson and Hannah's claim, the 'Mt Verde Mine', was situated at the junction of Scanlan's and Caledonian Gullies. In 1907 they purchased the old Sunrise Battery (then owned by the Premier Mine, and possibly moved up to that site) and transported it down to the junction of Scanlan's Gully and the Twelve Mile Creek (Rich Burn), where it still stands today. Work continued intermittently until about 1910, one of the problems being lack of water to drive the battery (A.J.H.R. 1909 C3: 36; Veitch 1972).

The mine was briefly reopened by the United Goldfields of New Zealand Company after the First World War, and a new level driven, but work was abandoned in 1921 (A.J.H.R. 1921–22 C2: 30).

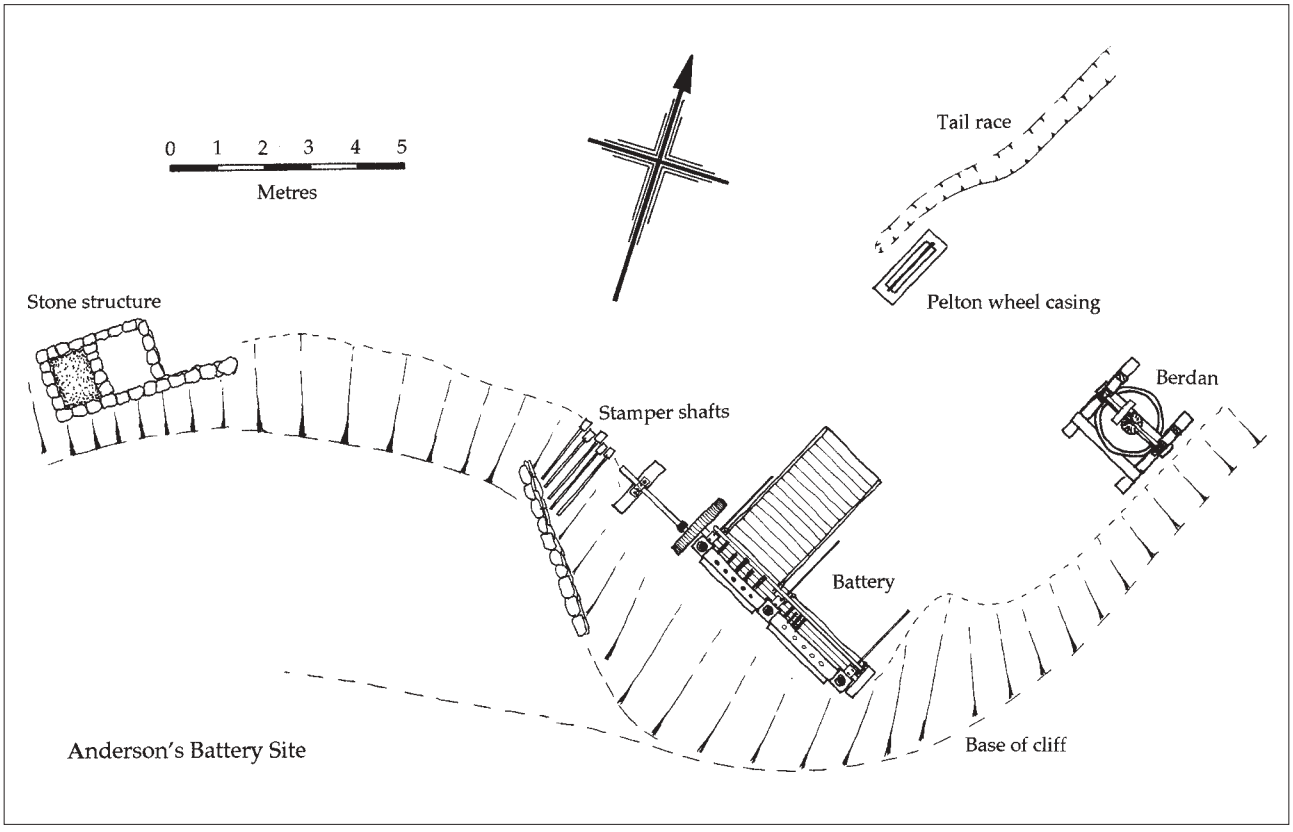
8.4 ARCHAEOLOGICAL EVIDENCE IN SCANLAN'S GULLY

The track up Scanlan's Gully starts at Anderson's Battery site (Figs 22 and 23; 'A' on Map 3, p. 24).

The battery is iron-framed, and is the only one of its kind in Otago. Built as a ten-stamp battery (two sets of five stamps), one set of stamper shafts has been removed, and the shafts are presently lying on the ground beside the structure. The battery was powered by a Pelton wheel, which has been removed since the 1970s, although the iron casing for the wheel remains. The berdan, used for fine

Figure 22. Anderson's Battery site. *Photo: P. Petchey.*

Figure 23. Plan of Anderson's Battery site.



grinding, is still in situ in line with the end of the stamper camshaft, from which it was driven via a canvas belt. The battery and equipment stands in the open, although the battery shed survived until the 1970s (Fig. 24). Photographs show it as a weatherboard building with an iron roof. Exposure to the elements is causing decay of the remaining timber elements (berdan frame, battery tables and pulleys), with noticeable deterioration between 1993 and 2000.

At the mouth of Scanlan's Gully there is some revetment on either side of the creek. Some of this is associated with the road that ran up the gully. As one

walks up the gully, sections of the carefully built road are obvious, with revetment both beside and below the road in places. Some parts of the road have been destroyed either by slips or by stream erosion.

The Tipperary Battery site and furnace are located about 500 m up the gully, on the true left of the stream (Figs 25, 26 & 27, and 'L' on Map 3, p. 24). Floods in November 1999 badly damaged the site, depositing a thick layer of gravel and washing away the old stream banks. No machinery remains on site. There is a revetted embankment, which was probably where the ore was fed down into the stampers. The stone furnace, located beside the battery site, is still partly standing, although the stonework is becoming increasingly decrepit.

Figure 24. Anderson's Battery in January 1967. The battery shed stood until the 1970s. Since then, the decay of the machinery that remained on the site has been rapid.
Photo: Department of Conservation, Dunedin.

The Tipperary Mine tramway led upstream from the battery to the mine, but the section between the battery and Caledonian Gully is not well preserved. A short distance beyond the battery there is a structure cut into the true right bank, consisting of several old stamper rods used to support a portal or roof. It could be an adit or drive entrance, although there is no record of a mine at this location.

Just short of the Caledonian Gully confluence, on the true left bank, is the open lower drive of Anderson's Mine and a small timber and iron hut ('N' on Map 3) containing a number of galvanised iron pipes (probably for underground mine ventilation). Around in Caledonian Gully a zig-zag track climbs up the hillside to a number of collapsed drive locations (probably the upper levels of Anderson's Mine, 'M' on Map 3) and at least one hut site. Ore was sent to the valley floor from the upper drive along a chute, part of which was cut through a rock knob. There is some archaeological evidence that a short aerial cableway may have been employed at some time.

Just upstream of Caledonian Gully is the location of the Tipperary low-level drive ('O' on Map 3). Although it has caved in, the location is obvious as orange-stained water continues to seep out of the old workings. Close by the drive is the site of the blacksmith's forge, with fragments of clinker and slag scattered about.

In front of the low-level drive and the blacksmith's the formation of the Tipperay tramway can be seen. It is well preserved from this point up almost as far as the mine site. It runs along the true left of the creek, and in places has been carefully revetted to protect it from erosion.

Figure 25. Tipperary Battery c. 1900. The furnace can be seen under the open-sided shelter to the left of the building housing the battery. *Photo: Lakes District Museum, Arrowtown.*

Figure 26. The Tipperary furnace. The gravel was deposited around the structure by floods in 1999. *Photo: P. Petchey.*

On the opposite bank of the stream seven hut sites were identified, two of which comprised substantial stone ruins. Five further hut sites were clustered on the same side as the tramway at the confluence of Scanlan's Gully and Tipperary Gully. Two of these are on the true right of the Tipperary Creek, on a small terrace. The other three are on the other side of the creek, on a sloping terrace. The remains of a Shacklock cast iron coal range are sitting close to one site.

The tramway formation continues up Tipperary Gully, although slips and erosion have now destroyed much of it. A further three hut sites are located well above the gully floor on the true right of the stream.

The unstable nature of the rock means that very little remains to be seen of the Tipperary Mine ('P' on Map 3, p. 24). This hillside was prone to slipping even when the mine was in operation. At the base of the hillside there is a jumble of

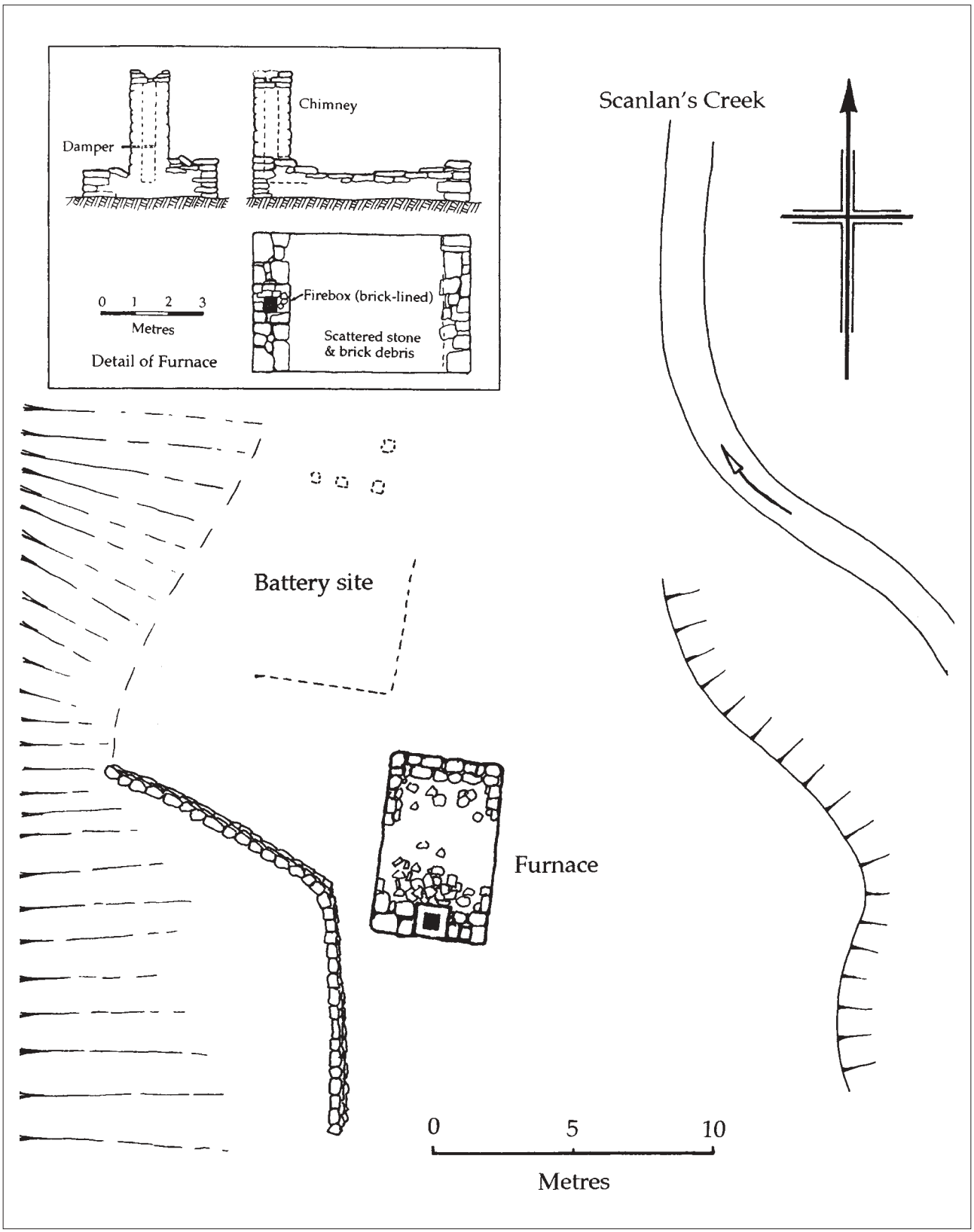


Figure 27. Tipperary Battery and furnace site. The battery site is now completely covered in flood gravel.

coils of wire rope, timbers, ironwork and revetment, confirming that much archaeological material lies buried and mixed in the slip material. Several short water races are visible on the opposite side of the gully.

9. Sylvia Creek (Maps 3 and 4)

A number of mining operations were based in Sylvia Creek and one of its tributaries, Bush Creek (Maps 3 and 4, pp. 24–25). The remains of two batteries—the United Goldfields and the All Nations—stand on the banks of the creek, and the remains of an impressive aerial cableway climb up from the valley to the site of 'Skytown', a small cluster of huts and mines at high altitude.

9.1 THE ALL NATIONS COMPANY

The All Nations Company is first mentioned in the Warden's Report for 1876. The company had driven both a tunnel and a shallow shaft to meet a reef that was expected to yield 4 to 6 oz of gold per ton (A.J.H.R. 1876 H3: 4). By 1878 expectations were still optimistic, but down to 1 oz per ton. The company by that stage had erected their own crushing battery, described as:

> 'A four-stamper battery, situate about half a mile from the claim. The machinery is very compact, having full power and weight, and attached is some very ingeniously constructed apparatus for dealing with the tailings by means of a concentrator and amalgam barrel.' (A.J.H.R. 1878 H4: 19).

Crushing was held up in late 1878 due to flooding that hindered all the local enterprises, but by the end of March 1879 work had recommenced. Expectations were still for rich returns, as the last crushing before the flooding had yielded over 1½ oz per ton (A.J.H.R. 1879 H11: 24).

At registration, the company had been fully paid up with £28,000 in £1 shares. However, this proved insufficient and the company fell into debt. In 1881 it was reconstructed as the New All Nations. By 1885 it was one of the only three quartz reef mining companies still operating at Macetown (along with the Tipperary and Premier), but its work was only of a prospecting nature (A.J.H.R. 1885 C2: 11). In 1888 the reconstructed company went into liquidation (Powell 1976: 32).

The battery was left on site, and was later repaired and put to use by the New Garibaldi Company working the Garibaldi claim, which bordered the All Nations claim. This venture met with no success (Powell 1976: 33). Subsequently, the battery was partially covered by a slip, and was abandoned for a time. Then, in 1895, it was cleared and repaired by Messrs Grinstead, Ford, Elliot and Pitt, who were working the old Victor Emmanuel claim in an attempt to attract investment from London (A.J.H.R. 1895 C3: 89; Powell 1976: 61). Once again, this venture was not successful, as no payable stone was found (A.J.H.R. 1896 C3: 107).

In 1913, New Zealand Consolidated Mines, which had recently re-opened the Garibaldi and Homeward Bound workings, commenced work at the All Nations. An aerial cableway was constructed, this being the one that can still be found (see below) (A.J.H.R. 1913 C2: 34). Work had ceased by 1920.

9.2 GARIBALDI MINE

The Garibaldi lode was discovered and opened up by October 1877, and in 1878 a tunnel was driven, but little good stone was struck. In 1880, the Garibaldi Gold Mining Company was registered to reopen the lode, and some good blocks of stone were struck (Veitch 1972). However, the ore had to be sledged down to Bush Creek and then taken by dray to a battery, which added greatly to the expense. In 1887 the lease and property were sold by the bailiff of the Queenstown Warden's Court, and soon after that the claim was incorporated into Farrell's Consolidated Mines (Veitch 1972).

The mine was reopened by New Zealand Consolidated Mines (Limited) (later the United Goldfields Mining Company) between 1909 and 1919.

9.3 VICTOR EMMANUEL COMPANY

The Victor Emmanuel Quartz Mining and Crushing Company was set up in 1876, and although work on the mine got underway, no battery was constructed and the ore was crushed at the All Nations Battery (Veitch 1972). The mine produced some promising results, but was closed down and sold in 1881.

The mine was opened again in about 1894, and the All Nations Battery dug out from under a slip and repaired. This work was undertaken on tribute in an attempt to attract investment from London (A.J.H.R. 1895 C3: 89; Powell 1976: 61). This was not successful, and the mine again closed down (A.J.H.R. 1896 C3: 107).

9.4 UNITED GOLDFIELDS BATTERY

This battery, constructed from parts of other batteries, was erected by the United Goldfields Company of New Zealand in about 1910 to rework the All Nations and Garibaldi mines (Veitch 1972).

9.5 ARCHAEOLOGICAL EVIDENCE IN SYLVIA CREEK

The walking track up Sylvia Creek once followed the old mine track formation, but this has now been largely destroyed by erosion and flooding. About 200 m up the Creek, on the true right, there is a small section of revetment let into the bank, with a possible hut terrace above.

Four hundred metres further on are the United Goldfields Battery and an associated building terrace (Fig. 28 and 'Q' on Maps 3 and 4). The battery is intact, but is becoming quite decrepit. A small slip has come down behind the battery, while the stream is eroding the ground in front of the structure. The battery is unusual in that it has concrete foundations, timber being more commonly used. This may be related to its relatively late date of construction (1910).

Figure 28. The United Goldfields Battery. *Photo: P. Petchey.*

Above the United Goldfields Battery the original mine road survives in sections, and leads on to the All Nations Battery 200 m further up the valley. Just before the battery is reached, there is a building terrace cut out beside the track which contained at least one hut or building site.

The site of the All Nations Battery (Fig. 29) is on the true right bank of Sylvia Creek. It consists of the remains of the battery and water wheel, although these are quite decrepit (Fig. 30 and 'R' on Maps 3 and 4). The head race is clearly defined, meeting with Sylvia Creek a short distance upstream, past the site of an old smithy on the opposite bank.

The blacksmith's is a stone building, and still contains parts of a cast iron portable forge and blower. The remains of posts in the ground beside the building indicate that there was originally a small cluster of structures at the site. The beginning of the track up Bush Creek to Skytown (see below) leads up behind these building sites.

On the other side of the valley (east side) there are at least four hut sites cut into the hillside. A short benched track leads to the upper two huts. Above these is one of the long water races that supplied water to the sluicings above Macetown. Some of the timber framework to support fluming survives around a bluff directly above the site of some of the huts.

Also visible is the bottom of the aerial cableway which carried ore to the battery ('Ra' on Map 4). The cableway pylons can be seen on spurs leading up into the mountains. At the top of the cableway is 'Skytown'.

9.6 SKYTOWN

'Skytown' was the unofficial name given to the small settlement of huts near the All Nations and Garibaldi mines and the head of the All Nations cableway in the head of Bush Creek ('Rb' on Map 4). The derivation of the name is obvious once

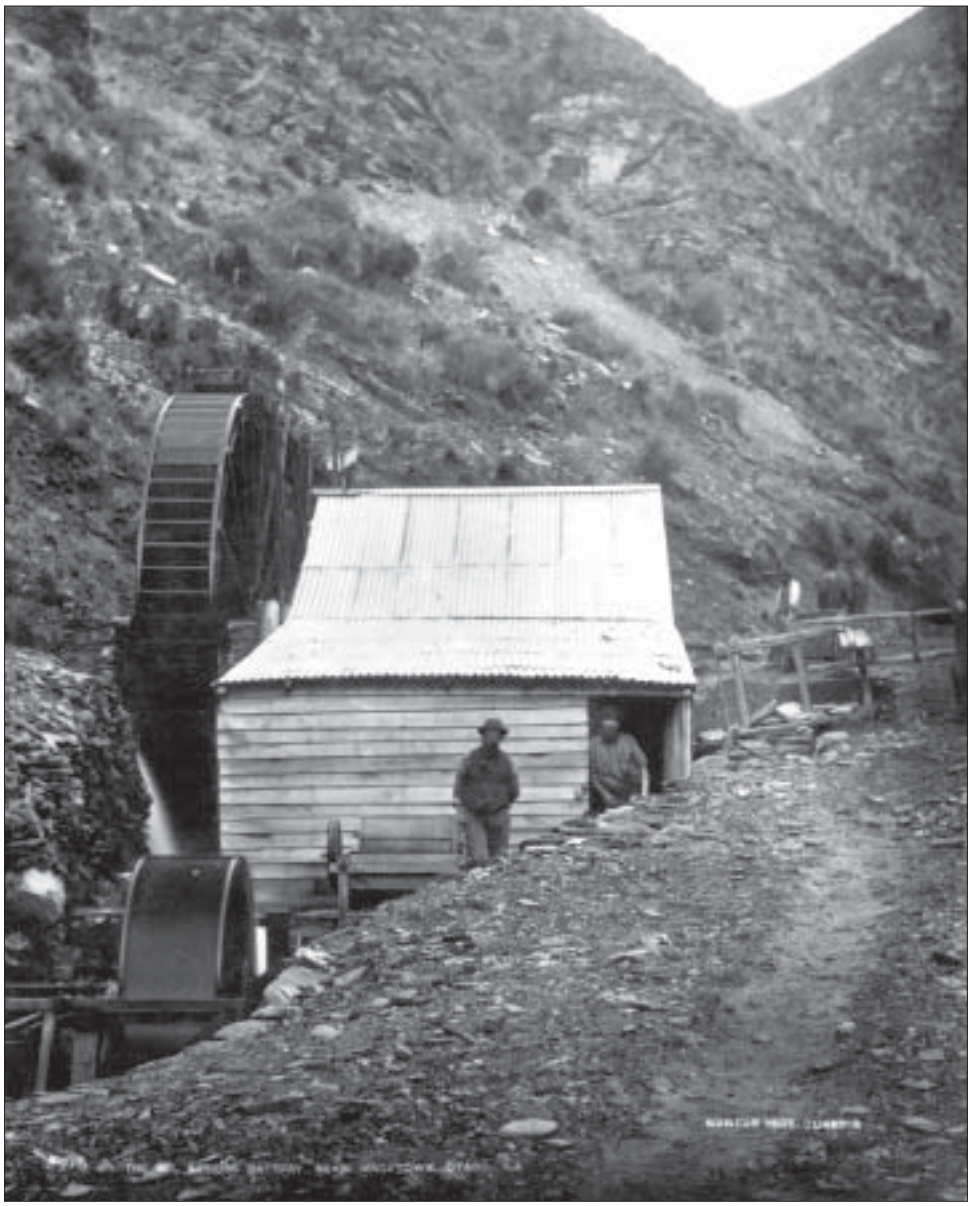


Figure 29. All Nations Battery c. 1897. *Photo: Museum of New Zealand Te Papa Tongarewa (c.014900).*

Figure 30. All Nations Battery. *Photo: P. Petchey.*

the site has been visited. The track from the All Nations Battery and smithy climbs up the north bank of Bush Creek, past the paved floor of a hut, and then crosses the creek to climb steeply up to Skytown. Parts of the track have slipped away, and much care is required as there are some very steep drops. Not located during the present survey was the Victor Emmanuel Mine, which was situated on the hillside near the start of the track. Two contemporary photographs of Skytown show, firstly (Fig. 31), its location high above Bush Creek and, secondly (Fig. 32), the steepness of the site.

Figure 31. View looking northwest of the confluence of the Arrow River (flowing in from the right) and Rich Burn (Twelve Mile Creek). Skytown appears as the pale scar high on the distant hill (a spur of Vanguard Peak, which is the highest point in the photograph). Note the mass of sluiced-out debris in the river beds and the small huts and other structures on the true right of the Rich Burn. *Photo: Museum of New Zealand Te Papa Tongarewa (c.015169).*

Figure 32. Skytown. *Photo: Lakes District Museum, Arrowtown.*

From the track the pylons of the aerial cableway are visible on the opposite side of the valley, as is the route of a slightly lower track or cableway. The exact nature of this lower feature is unclear, but heavy cables strung across a crevasse indicate that some effort went into its construction. It presumably pre-dates the main cableway, and was for transporting ore to the battery.

At Skytown, the track first leads to the intact top return wheel of the aerial cableway and the partially collapsed quartz hopper, which is still full of quartz (Figs 33 & 34). The return wheel structure is in very good condition, although one cable guide wheel is missing.

Continue to next file: Part 4