
**ARCHAEOLOGICAL ASSESSMENT OF
LOT 2 DP 82749, ROBINSONS BAY, CANTERBURY**



**PREPARED FOR THE
ROBINSONS BAY RATEPAYERS ASSOCIATION**

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SUNRISE ARCHAEOLOGY REPORT NO. 2022-06**



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Executive Summary

The Robinsons Bay Ratepayers Association commissioned this archaeological assessment of the nineteenth century sawmill (NZAA Site Number N36/260). While the adjacent mill cottage and schoolteachers' houses are listed in the Christchurch City Council District Plan, the sawmill site is not. This assessment is to be used for future planning purposes, providing context for the sawmill within the larger cultural and archaeological area of Robinsons Bay. Historical and archaeological literature, archival research, land records, prior research, and long-time valley residents and associates were consulted as part of this investigation. Site visits by the authors occurred in April and May 2020, and April 2022.

While Māori had long occupied Banks Peninsula before Europeans arrived, the only recorded archaeological evidence in Robinsons Bay is a small oven feature at the head of the bay. The nineteenth century European history of the valley is more extensive. The first settlers were the Pavitt family, who arrived from England in 1850 and set up one of the early pit-sawing operations in the early 1850s. By 1855, they had erected an overshot waterwheel-driven sawmill in the valley, the first of its kind in Canterbury. After a steam-powered retrofit in 1865, the mill became an important supplier of timber to the region. In its heyday, the valley also had a store, butcher shop, blacksmith, and school. A number of timber-hauling ships were built in the bay. By the late 1870s, much of the area had been logged and the mill eventually closed. Much of the land was then farmed, largely by people once associated with the sawmill, and cheese-making and cocksfoot were important exports. Today, descendants of the settlers and millers still reside and/or farm in the area, and Robinsons Bay is a quiet rural community.

The footprint of the millworks was extensive, and aspects of the associated waterworks, tramways up and down the valley, huts in the bush, furrows created by logging, as well as historic nut and fruit tree groves, are still visible there today. The mill cottage, built between 1855-1860, is the oldest standing structure in the area and provides a focal point for the historical landscape. The sawmill site, cottage, and surrounding area are associated with two of the first important industries in Banks Peninsula: sawmilling and shipbuilding, as well as the subsequent cocksfoot and nineteenth century cheesemaking enterprises. As such, this location has broad archaeological values relating to early European settlement and expansion in Banks Peninsula, Canterbury, and New Zealand as a whole.

The sawmill site and associated features are assessed as having medium to high archaeological values. In the interest of preserving the heritage character of this landscape, it is recommended that best practices for management involve methods that render surface features visible, such as continued grazing, along with the preservation of above-ground structures and other features associated with the mill operation.

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Cover image: Robinsons Bay mill waterwheel in 1907. Source: Marie Rhodes.

1 Introduction

The Robinsons Bay Ratepayers Association commissioned this archaeological assessment of the location of the old sawmill and associated features located at 11 Sawmill Road in Robinsons Bay, Banks Peninsula (Figure 1). The legal description of the property is Lot 2 DP 82749, and it is 114.77 ha.

The Association wishes to use this document to aid in planning and management for this historical location, and to provide context for the sawmill site within the larger cultural and archaeological landscape in Robinsons Bay.

There are presently no visible structural remains of the old sawmill. The iron axle from the mill's waterwheel is present on the property near the stream adjacent to mill cottage. It is lying on the ground, as the wooden plinth it was once sitting on has collapsed. Surface features related to mill operations are still visible, including the footprint of the mill dam and water race. The sawmill site has been recorded as Archaeological Site Number N36/260.

The adjacent cottage (NZAA Site N36/155) known today as the mill or Pavitt Cottage is the oldest standing structure in the area, built in approximately 1855-1860.

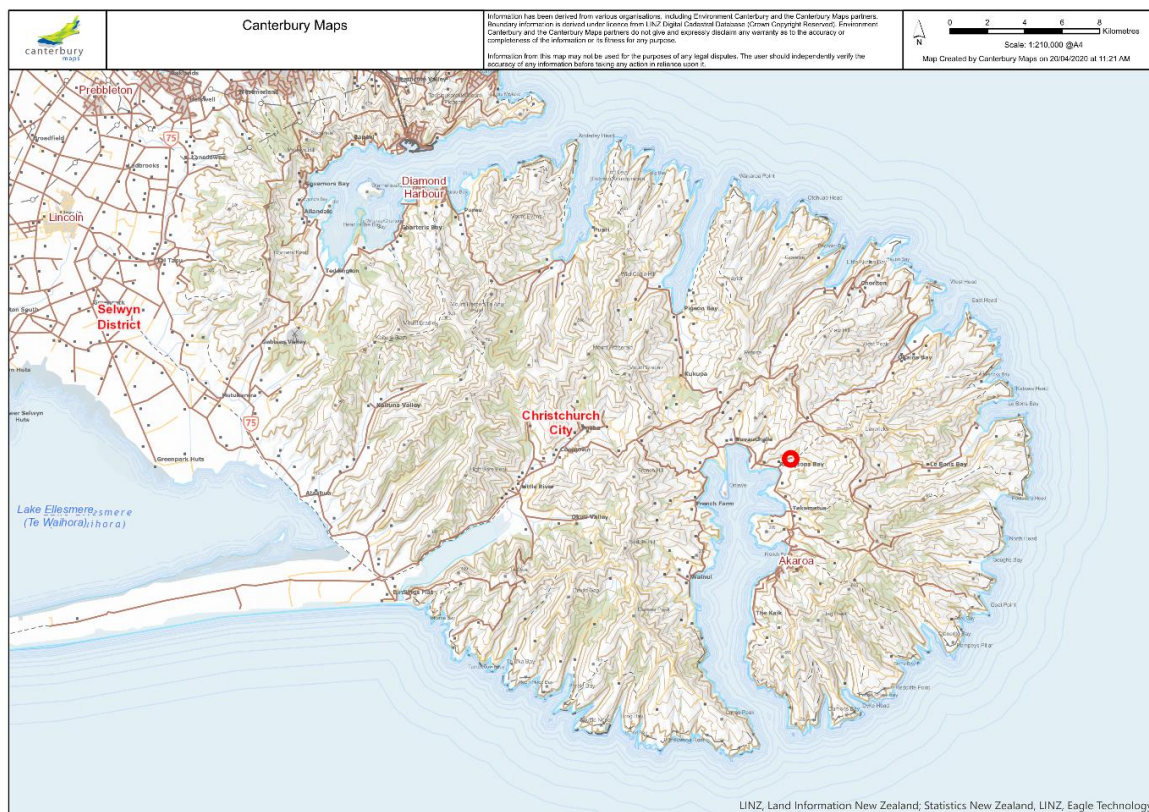


Figure 1. Topographic map of Banks Peninsula. Site location is red circle. (Canterbury Maps, 2020)

2 Statutory Requirements

There are two main pieces of legislation in New Zealand that control work affecting archaeological sites. These are the *Heritage New Zealand Pouhere Taonga Act, 2014* (HNZPTA), and the *Resource Management Act, 1991* (RMA).

Heritage New Zealand Pouhere Taonga Act 2014 - Archaeological Provisions

Heritage New Zealand Pouhere Taonga (HNZPT) administers the *Heritage New Zealand Pouhere Taonga Act* (HNZPTA). All archaeological sites in New Zealand are protected under this act and may only be modified with the written authority of the HNZPT. The act contains a consent (commonly referred to as an “Authority”) process for work of any nature affecting archaeological sites, which are defined as:

Any place in New Zealand, including any building or structure (or part of a building or structure), that:

- (i) Was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and*
- (ii) Provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and*

(b) Includes a site for which a declaration is made under section 43(1)

Any person who intends carrying out work that may damage, modify, or destroy an archaeological site must first obtain an authority from the HNZPT (Part 3 Section 44). The process applies to archaeological sites on all land in New Zealand irrespective of the type of tenure. The maximum penalty in the HNZPTA for un-authorised damage of an archaeological site is \$120,000. The maximum penalty for un-authorised site destruction is \$300,000.

The archaeological authority process applies to all sites that fit the Heritage New Zealand definition, regardless of whether:

- The site is recorded in the New Zealand Archaeological Association (NZAA) Site Recording Scheme or registered/declared by the Heritage New Zealand Pouhere Taonga,
- The site only becomes known about as a result of ground disturbance and /or,
- The activity is permitted under a district or regional plan, or resource or building consent has been granted.

HNZPT also maintains a Register of Historic Places, Historic Areas, Wahi Tapu and Wahi Tapu Areas. The register can include some archaeological sites (though the main database for archaeological sites is maintained independently by the NZAA). The purpose of the register is to inform members of the public about such places and to assist with their protection under the *Resource Management Act, 1991*.

The Resource Management Act 1991 - Archaeological Provisions

The RMA requires City, District and Regional Councils to manage the use, development, and protection of natural and physical resources in a way that provided for the well-being of today's communities while safeguarding the options for future generations. The protection of

historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance (section 6f).

Historic Heritage is defined as those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, derived from archaeological, architectural, cultural, historic, scientific, or technological qualities.

Historic heritage includes:

- historic sites, structures, places, and areas;
- archaeological sites;
- sites of significance to Māori, including wāhi tapu;
- surroundings associated with the natural and physical resources (RMA section 2).

These categories are not mutually exclusive, and some archaeological sites may include above ground structures or may also be places that are of significance to Māori.

Where resource consent is required for any activity, the assessment of effects is required to address cultural and historic heritage matters (RMA 4th Schedule and the District Plan assessment criteria (if appropriate)).

3 Methodology

Sunrise Archaeology staff consulted local histories and other relevant archaeological literature in preparation of this assessment. The New Zealand Archaeological Association (NZAA) site recording scheme ArchSite (www.archsite.org.nz) was consulted to determine whether any previously known sites were present on or near the property. Cartographic research was also conducted, in that old survey plans of the area were examined for information relating to early structures and infrastructure in the relevant area.

Deeds records from Archives New Zealand in Christchurch were consulted (see References section for specific volumes) in person and via digital images of the original records, which were provided to the authors by Brent George and Lynda Wallace of the Akaroa Museum. Historical photographs and newspaper searches were also conducted. A number of other historic records and reference texts were also reviewed.

Residents of the valley and surrounding area, some of whom are descendants of the original settlers, millers, and farmers, shared their recollections of Robinsons Bay and its past residents. Justin Maxwell and Jennifer Huebert visited the mill cottage on several occasions, and with the assistance of local residents JJM investigated other historical features in the valley in April and May 2020, and in April 2022.

4 Physical Setting

Robinsons Bay is one of the many sheltered inner harbour bays within Banks Peninsula on the South Island, southeast of Christchurch city. The valley starts with a relatively flat series of paddocks bounded on the southern, eastern, and northern sides by hill country which is today a mix of farmland and patches of bush. Stands of introduced old-growth trees are present throughout the area, along with walnut, oak, and fruit trees.

The precise location of the old sawmill is uncertain, but it is reported to have been on what is today Lot 2 DP 82749 (11 Sawmill Road) immediately east and across the stream from the mill cottage. The mill and associated infrastructure also possibly included portions of lower Sawmill Road and adjacent properties, and today these lands still bear evidence of the nineteenth century milling activities.

The old sawmill site is not recorded as having any heritage values at the present time, however in 1987 the Historic Places Trust did erect an informational sign next to the waterwheel remains. Several nearby sites are listed in the Christchurch City Council (CCC) District Plan as Heritage Items, including the adjacent mill cottage (Item #1171) and across Robinsons Bay Valley Road the old schoolmaster's house (Item #1173).

5 Historical Background

5.1 Banks Peninsula

The long Māori occupation of Banks Peninsula is indicated by the presence of numerous midden and oven sites, stands of karaka trees (*Corynocarpus laevigatus*), and evidence of hunting now-extinct species such as moa (*Dinornis* spp.) (ArchSite, 2014). Banks Peninsula was the southern limit of traditional Māori crops, particularly kumara (*Ipomoea batatas*) (Anderson, 1982) and the tree crop karaka (Stowe, 2003; also see Hay, 1915:13). The ability to grow traditional crops on the Peninsula, along with its sheltered harbours, likely contributed to the long and continued habitation of the area—especially in comparison to locations further south on the South Island.

By the 1800s, Ngai Tahu were the tangata whenua in Banks Peninsula. When European settlements commenced, the Māori population was already greatly reduced after years of internal disputes and warfare and the raiding parties led by Te Rauparaha. Introduced diseases also took their toll, and a measles outbreak in 1848-9 took many lives (Hay 1915:9). The final major disaster for the Ngai Tahu of Banks Peninsula occurred at Onawe Pa in 1832 when Te Rauparaha's raiding party, after successfully accessing the pa, killed or enslaved nearly all of its occupants. Following the sacking of the pa, the surrounding bays were searched for the remaining Ngai Tahu, leaving "a dispirited scattering of battle fugitives hiding in the Peninsula bush" (Ogilvie, 1990:13).

The Maori name for the Robinsons Bay valley is Nga-ka-kai-au, or Kakakaiau; the latter is the name of the main stream that flows into the bay from Okains Peak. Te Umu-te-rehua is the point that divides the bay from Taka-matua (Andersen, 1927:191). The name could refer to flounder fishing in the bay, and the bone needles that were threaded to catch them (Ogilvie, 1991:167). Alternately, according to an early European valley settler, the Māori name of the place was Kakakai because of the number of kakas that used to feed on the pine berries there (Akaroa Mail, 28 April 1882). Little is known of the Māori habitation of the valley or use of the bay prior to European contact. In the late 1800s, an early European settler noted there used to be an old Māori encampment close to the beach, though the only traces of which remained by his time were marine shells (Akaroa Mail, 28 April 1882).

Europeans began to purchase Banks Peninsula lands from Māori in the early nineteenth century (Ogilvie, 1990:14-15). One of the first major acquisitions was by the French Captain Jean Langlois who, in 1838, negotiated a purchase of what amounted to around 5000 ha from Māori of Port Cooper with a down payment of goods such as linen trousers and woollen shirts. Some of these lands were sold to settlers via the Nanto-Bordelaise Company, the firm responsible for the 1840 French settlement in Akaroa that was the first permanent township in Canterbury (Ogilvie, 1990:15, 20-23). While the early settlers of Akaroa had mainly small allotments (Dinghall and Haylock, 2018:14), wealthier landowners including merchants, officials, and aristocrats purchased larger sections elsewhere on the Peninsula (Ogilvie 1990:167).

When the British signed a treaty with Māori at Waitangi, the Nanto-Bordelaise Company was successful in being granted its Akaroa holdings in 1845. However, the French no longer desired to maintain a presence in New Zealand, especially as whaling revenues had also declined, and the Company sold its land interests to the newly formed New Zealand Company in 1848. The British government provided protections to some of the existing freehold landowners, but other lands were transferred to the Crown and many were sold to settlers. The Canterbury "land grab" that followed was chaotic, and there were uncertainties as to ownership of certain parcels of land (Ogilvie, 1990:14-15). Problems with precisely relocating property boundaries set out in initial land surveys (George, 2008; Leach and

George, 2010a:8-10) and active trading of pasture licenses (Leach and George, 2010b:5-8) were also concerns.

5.2 Sawmills and timber trade

The earliest European explorers recognised that New Zealand forests were a source of timber for spars. The cutting of trees for both spars and timber was to become one of the first primary industries for the colony, supplying locally and to Sydney and beyond. The earliest timber stations in New Zealand were ship-based, and in 1826 the first shore-based timber stations were established on Stewart Island and Hokianga harbour. The first water-powered sawmill in the colony was Browne's Mercury Bay station located in Whitianga harbour, which began operations in 1838 (Smith 2019:158-168).

With the organised arrival of settlers in Canterbury in 1850, the large forests of Banks Peninsula were in a prime location to provide timber to the hub at Lyttelton, and it did not take long for the timber trade to spread across the peninsula. Early settlers commented on its natural beauty and forest-covered hills. Samuel Farr, an engineer who arrived from England in 1850, was captivated by the landscape he saw hiking high in the Akaroa hills, where he described trees that were "mighty giants" (Farr 1900:40). The Crown began issuing licences to cut timber on its unoccupied lands in 1851, and from 1854 timber reserves were made in an attempt to manage forest use (Roche, 1990:75-77; Figure 3). As there was little enforcement for illegal cutting, neither plan was very effective and the result was much waste and destruction. These early endeavours were hand pit-sawing operations (Figure 2).

Hand-sawing was replaced by sawmilling, and by the mid-1850s, Robinsons Bay had become the home of the first water-driven sawmill in Canterbury (Andersen, 1927:191; Ogilvie 1990:5). Henry Sewell, visiting the new mill in 1855, remarked heartily "If I ever came to settle it would be here, and in this line. [i.e., timber trade]" (MacIntyre, 1980:132). By 1870, the sawmilling industry on Banks Peninsula was in full swing, and there were well over a dozen mills operating (Ogilvie, 1990:5, and Figure 3). Photographs from the early 1860s show the expedient character of some of these operations (Figure 4), and the chaotic nature of others (Figure 5).

By the late nineteenth century, much of the accessible timber had been milled out of the Peninsula. Areas that had been cleared eventually become pasture and as mills closed, land that had been in owners' hands was divided into farming parcels and purchased by the former millworkers. Dairying, cheese-making, and cocksfoot seed production became important on Banks Peninsula, and "Akaroa cocksfoot" was shipped around the world (Ogilvie, 1990:7).

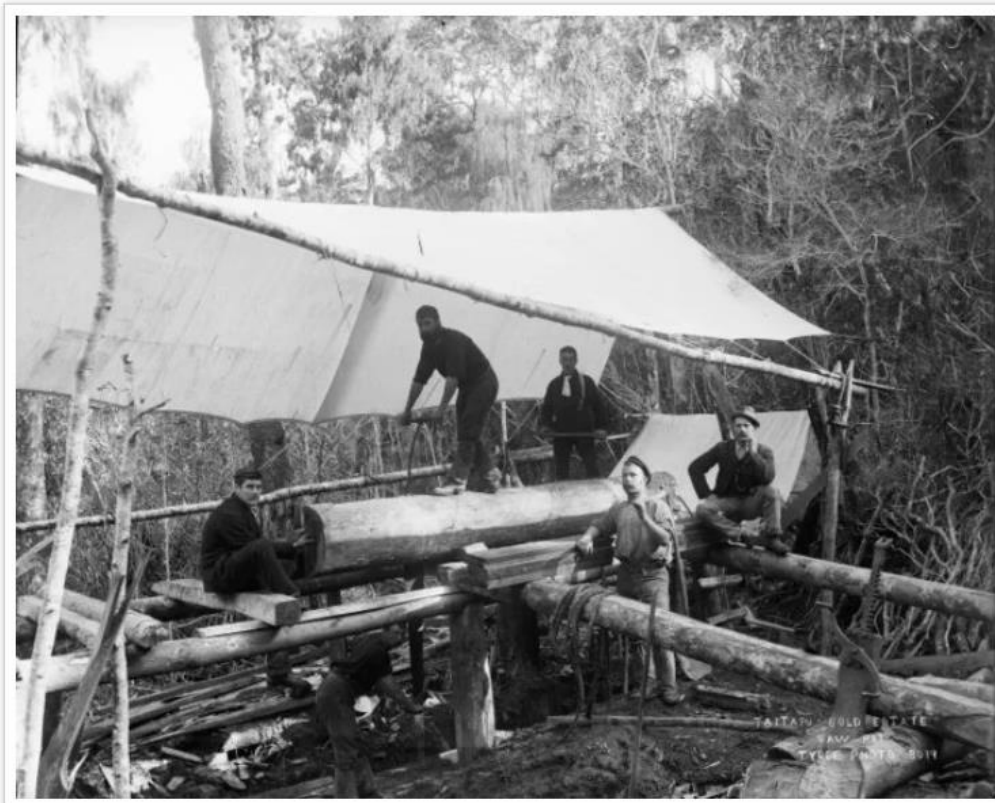


Figure 2. Example of pit sawing in New Zealand c. 1880s. (Source: Turnbull Library, Ref. 10x8-0560-G).

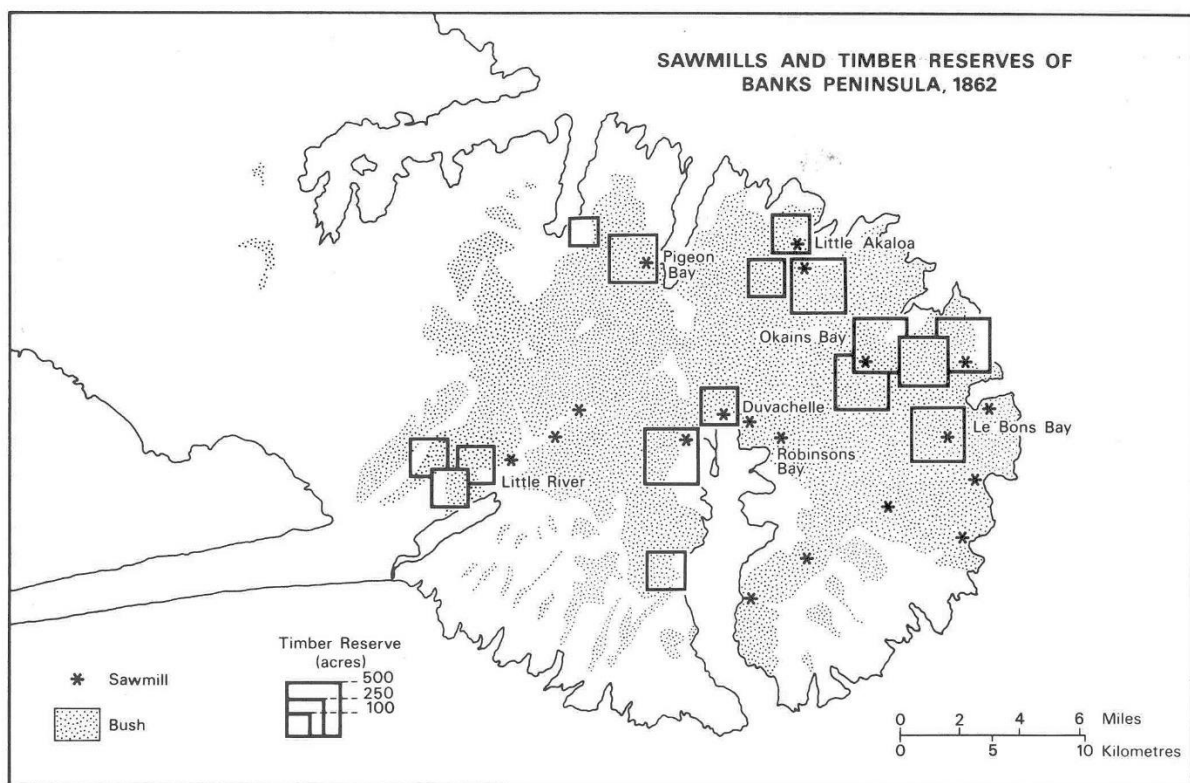


Figure 3. Sawmills and timber reserves of Banks Peninsula in 1862 (Roche 1990).



Figure 4. The sawmill of George Holmes (contractor for Lyttelton Tunnel), at Pigeon Bay, c. 1865. Photograph by W.T.L. Travers. Source: Christchurch City Libraries, Ref. CCL-KPCD1-IMG0005.



Figure 5. The White & Co. sawmill at Little River, 1863 (Jacobson and Stack, 1940).

6 Previous Archaeological Work

The sawmill is NZAA Site N36/260, described as the Pavitt/Hughes/Saxton sawmill. The nearest archaeological site is N36/155, an adjacent structure known as the Mill or Pavitt Cottage. The only other recorded site in Robinsons Bay is N36/105, a small site within the bank of a creek at the head of the bay described as a Māori midden/oven. A field visit by JJM in 2020 could not, however, relocate the site which was most likely destroyed when a bridge was built over the creek.

There are other known sites and existing nineteenth century structures in the area (Figure 6, Table 1). The vast majority of the recorded archaeological sites described within 2 km of the sawmill are Māori sites from multiple time periods.

Historical aerial imagery from 1952 shows that by that time, no structures were standing at the old sawmill site (Figure 7). A small grid of yards or low fences are present within the depression that is the old mill dam. The old Williams cottage which still stands today is visible in the photo, and the shearing shed and yards are visible a short distance uphill. The old oak grove is also clearly visible.

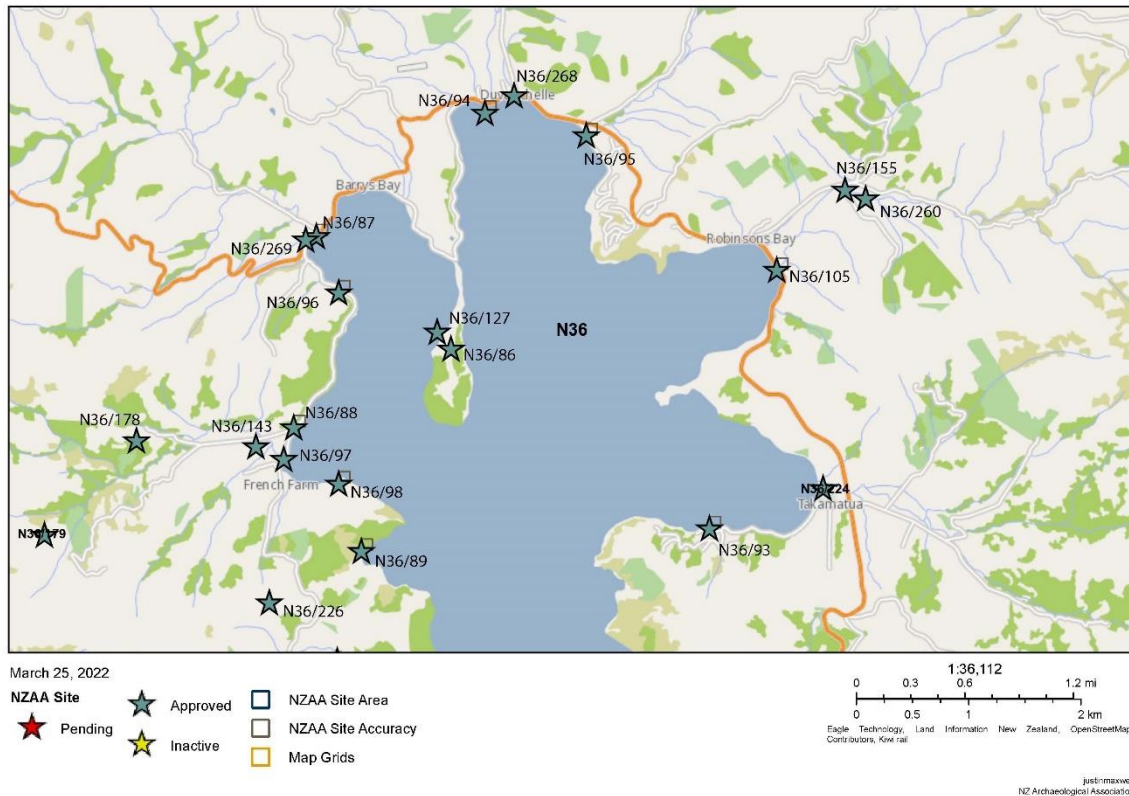


Figure 6. Recorded archaeological sites in the vicinity of sawmill (N36/260). The adjacent mill cottage is Site N36/155. Source: ArchSite (www.archsite.org.nz)

Table 1. Recorded archaeological sites in the vicinity of the Robinsons Bay sawmill.

NZAA Site No.	Description	Location	Estimated age
N36/260	Historic sawmill and cottage	Sawmill road, Robinsons Bay	1850-1900
N36/155	Historic cottage	5 Sawmill Road, Robinsons Bay	1857-1860
N36/105	Midden/oven	Robinsons Bay foreshore	Māori
N36/224	Military Block house	6 Old French Road, Takamatua	1845
N36/93	Midden/oven	Takamatua foreshore	Māori Pre 1500 AD
N36/95	Midden	Duvauchelle foreshore	Māori
N36/268	Historic roadway	Duvauchelle (road)	Possibly pre-1900
N36/94	Midden	Duvauchelle foreshore	Māori
N36/127	Fish trap	Onawe Pā	Māori
N36/86	Onawe Pā	Onawe	Māori
N36/87	Midden/oven	Barrys Bay foreshore	Māori Pre 1500 AD?
N36/269	Bridge	Barrys Bay Stream Bridge	Colonial 1840-1900
N36/96	Midden/oven	Barrys Bay foreshore	Māori
N36/88	Midden/oven	French Farm Bay foreshore	Māori
N36/143	French farmhouse	French Farm Valley Road	1840
N36/97	Midden/oven	French Farm Stream	Māori, pre-1769
N36/98	Midden	French Farm	Māori
N36/89	Midden/oven	Broughs Bay foreshore	Māori
N36/226	Bridge	Tikao Bay Road roadway	Colonial 1840-1900



Figure 7. Historical aerial photograph from 1952. Red outline is approximate boundary of subject property. Arrow indicates approximate mill site. Triangular cluster of trees to the right is the old oak grove. Source: Retrolens 2022, #140/71.

7 Research Results

7.1 Settlement of Robinsons Bay

Charles Barrington Robinson, William Watkins Wood, and Sir Michel le Fleming were the first landowners in the valley. Robinson and Wood purchased their 100-acre section of land from the Nanto-Bordelaise Company on 3 June 1842 (Hight and Straubel, 1957:240). The section encompassed much of the valley flat from behind the foreshore inland (Nanto-Bordelaise Deed of Sale, 3 June 1842¹). The deed shows that Robinson had built a dwelling near the beach to the southeast of the stream; it has been said this was a requirement for property purchases at the time (Mould, 1991:14).

Subsequent to the failure of the Nanto-Bordelaise Company, the Crown decided that freehold landowners such as Robinson and Wood, and le Fleming, could keep their prior land purchases and both parties are registered in 1863 land section purchase records (Province of Canterbury, 1863:7, 14). Figure 8 shows the location of their sections in Robinsons Bay. Robinson, who had been the resident British Police Magistrate of Akaroa (Ogilvie, 1990:167), took part in a settlement endeavour in 1850, chartering the *Monarch* and bringing immigrants including John Pavitt and his large extended family to Akaroa (Mould, 1991:10). Samuel Farr also emigrated on this voyage and upon arrival married one of the Pavitt daughters. Farr went on to become well-respected architect and engineer who took part in many projects in the area, designing the Pavitt's sawmill in Robinsons Bay and the Haylock flour mill in Akaroa, both of which used overshot waterwheels (Dingwall and Haylock, 2018; Farr, 1900:54), and the Cumberland Sawmills in Duvauchelle (Andersen, 1927:191) which operated from 1858-1878 (Ogilvie 1991:5).

On 5 June 1854, Wood sold out his interest in the land section, and Robinson then sold it to the elder Pavitt brothers, with the sale finalised 20 October 1856 (Deeds Index Record 825/3D 133). The property (see Figure 8) became Rural Section 579. By 1855, the elder Pavitt sons (Frederick, Henry, Francis, and Alfred) had settled in Robinsons Bay (Electoral roll, 21 August 1855, in Leach and Browne, 2008), and were most likely the first Europeans to permanently reside in there.

Farr (1900:56) describes that about three-fourths of the parcel was covered with “...dense primeval forest...black and white pine, totara, manuka, kowhai, koanini—were most of them of large size.” Some of John Pavitt's younger sons later recollected their childhoods possibly Robinson's Bay, or at their father's home in nearby German Bay (Takamatua)²:

‘For some time the family lived on wild pigeons, pigs, kakas and fish, and obtained timber for their huts from the dense native bush that descended from the ridges of the hills to the fringes of th[e] harbour.’ (Augustus Pavitt, Akaroa Mail 1 October 1937)

‘Banks Peninsula then was mostly wooded land, almost down to the water's edge—totara, matai and kahiatea.’ (Edward Pavitt, Lyttelton Times 25 September 1918)

¹ Original deed not seen; transcription of deed and map provided by Pavitt Family Trust, 2020.

² John Pavitt's home in German Bay is mentioned in Leach and Browne (2008).

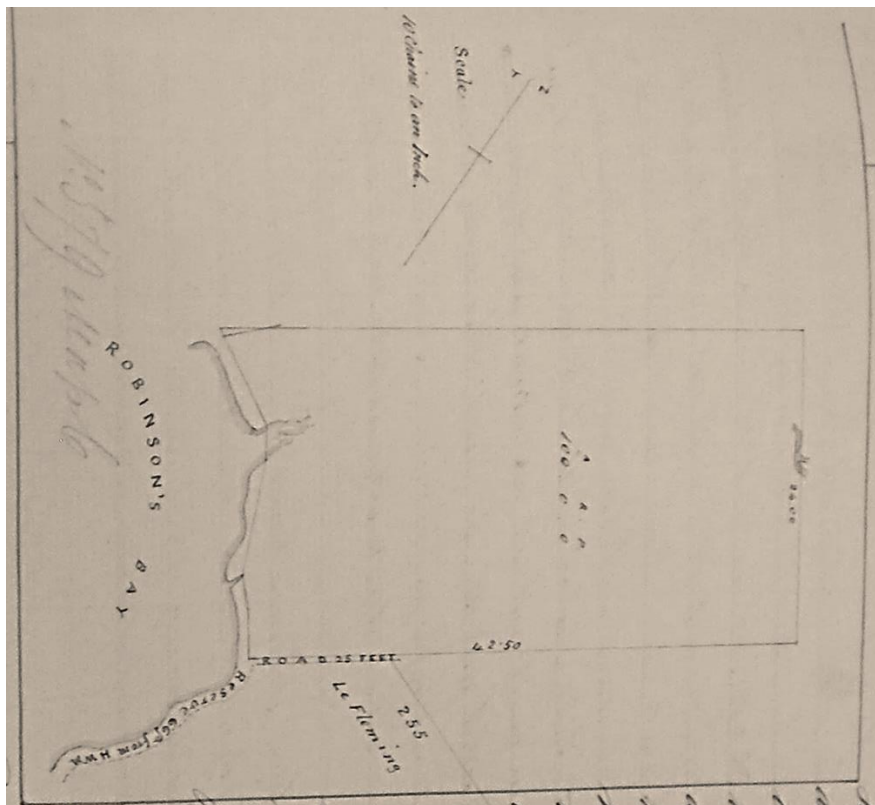


Figure 8. Deed record sketch of RS 579, a 100-acre conveyance from Robinson to Pavitt Brothers, 20 October 1856 (Deeds Index Record 824/3D 134). Le Fleming's section 255 is to the south.

By early 1855, a sawmill with a waterwheel had been erected in the valley by the extended Pavitt family (Leach and George, 2010a:7; Mould, 1991:24; Ogilvie, 1990:167). The Pavitts, some of whom had families of their own by this point, had probably built dwellings in the area (Mould, 1991:22). In October 1856, a fire at their main residence destroyed the house and most everything in it, the barn, “a large quantity of stores”, and agricultural implements (Lyttelton Times, 1 November 1856). After the fire, the Pavitt family residing in the valley expanded (Mould, 1991:22) and likely built additional dwellings in the valley, including the mill house (Leach and Browne, 2008). While the precise year the mill cottage was constructed has been debated by descendants of the Hughes and the Pavitts for years, it has been determined that the existing structure was built sometime between 1855 and about 1861 (see Maxwell and Huebert, 2020).

Between 1860-1864, the Pavitts attempted to sell their Robinsons Bay property that had been dubbed “Woodlands” (Lyttelton Times, 24 September 1863). The advertisement listed three dwellings, along with extensive orchards and gardens. The land included both RS 579 and RS 958, an adjacent parcel. By this time, 60 acres of the section were cleared and fenced paddocks, but the remainder of the land for sale was still described as heavily timbered. Though no sale of Woodlands resulted, some of the family sold out their interest in 1862 (Deeds Index, Record 4601/10D 668, 21 January 1862), and other family members might have built a new Woodlands and/or moved further down the valley (Ogilvie, 1990:168; Mould 1991:26).

Around this time, land around the Pavitts' sections was being purchased by others who probably obtained them as investments. Some purchases were subject to pre-emptive ownership rights, which were options for colonists from the four organised Canterbury settlement ships from England who had pasture rights to the land (Leach and George 2010b:2). John Jenkins Peacock secured pasture rights to 500 acres to the northeast of

Pavitts' RS 579 (Minute Books of the Waste Land Board, 1 May 1857³). Peacock was a trader and land speculator who had pre-emptive rights to land in and around the valley; he did not reside there, and his holdings at the time were probably forested (Leach and George 2010b:7). Timber cutting rights for some land in the valley were obtained by Thomas Jackson Hughes in 1852⁴. Also, an unnamed gentleman advertised 100 acres of land adjacent to Pavitt's sawmill (Lyttleton Times, 10 July 1858) and described it as bush, stocked with large trees suitable for milling, including "black and white pine, manuka, totara" and others. Together, these findings indicate that in the late 1850s, much of the valley was still well-wooded with excellent prospects for investors.

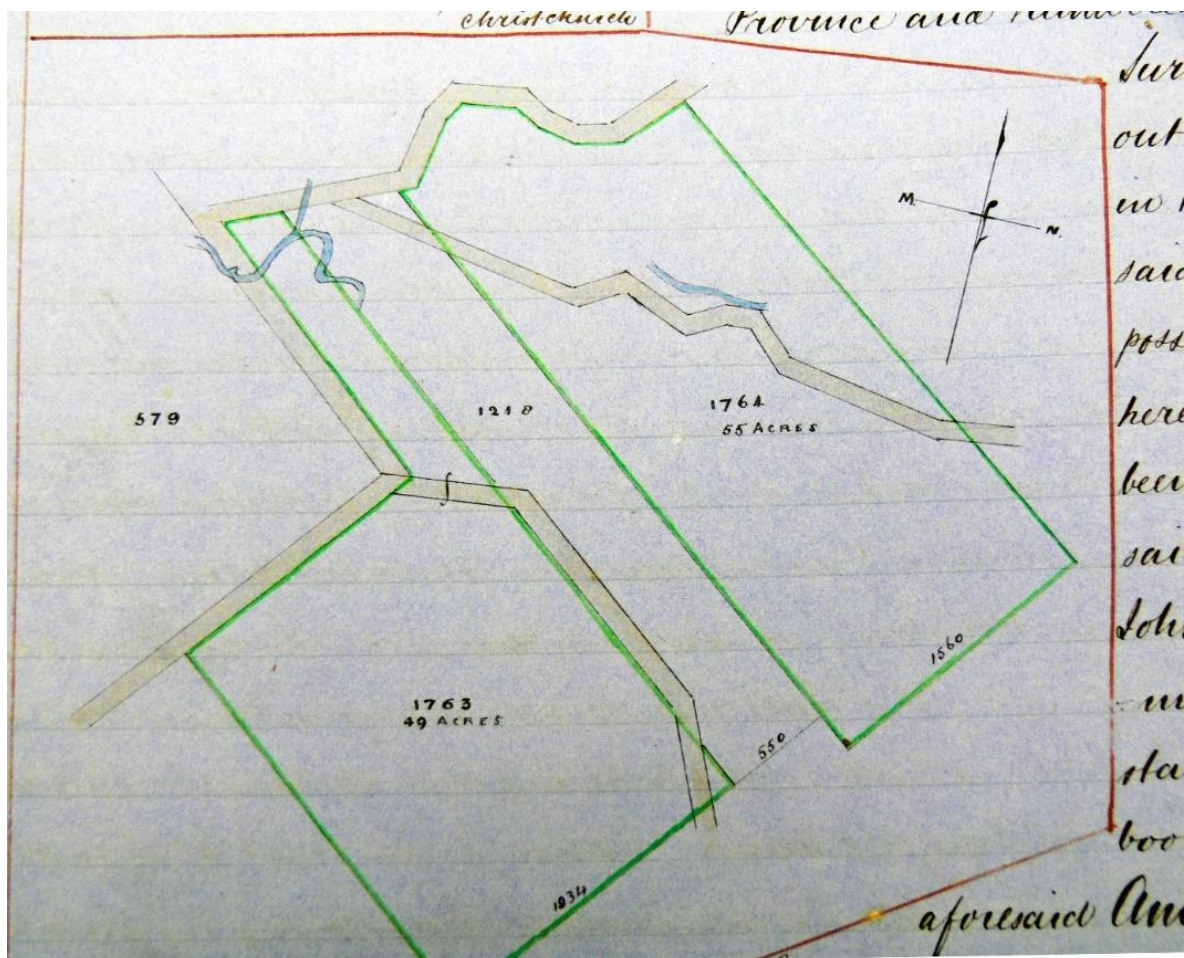


Figure 9. 1861 Deed record sketch for conveyance of RS 1763 and RS 1764 from Richard Hughes to Thomas Hughes (Deeds Index Record 3310/7D 591, 23 January 1861). RS 1248 lies between the two sections.

The sections that encompass the once extensive sawmilling operation including the associated buildings, dam, and water race are RS 1763, 1764, and 1248 (Figure 9; also see Leach and George 2012a). These properties border RS 579 to the northeast, along what is today the main valley road.

³ On file at Archives New Zealand, Christchurch. CH290, 1/series. Not seen; described in Tregear (c. 2013).

⁴ From owner Mr. Godley, who might have lost the title to the Crown (details uncertain; note by Jack Tregear, provided by Brent George of Pavitt Family Trust).

In 1859, Richard Jackson Hughes became the first owner of RS 1763, a 49-acre rectangular plot with a panhandle that wrapped around the Pavitts' RS 579 to the north and west, in payment for public works (Leach and George, 2012b:3). This section included land where the mill cottage stands today, and probably part of the sawmill operation. At the same time, Hughes also became the first owner of RS 1764, a roughly rectangular 55-acre section which lay a short distance farther inland. On 23 January 1861, Thomas Jackson Hughes purchased these two sections from his son (Deeds Index, Record 3310/7D 591, 23 January 1861).

The 20-acre strip between these two sections (RS 1248) had been on reserve for years to a person named Smith from Akaroa (Province of Canterbury, 1863:27; Deeds Index, pg. 38). It is likely this was Henry Smith, C.B. Robinson's business partner with whom he had co-chartered the *Monarch* (Amodeo, 2019). The Canterbury section records books indicate that the Crown grant had been prepared in 1864, but the sale to Smith apparently was not completed. RS 1248 was only first purchased in 1873, when Saxton and Williams became the first recorded owners (Deeds Index, 14 March 1873). This section is likely to have been the location of a significant portion of the sawmilling operation.

Road access was needed to provide new landowners access to their sections. Planned roads were to be put in around the periphery of RS 579. Few were built, however, as while looking feasible on paper ("paper roads"), they went through steep and/or undulating terrain. The shape of some land sections was influenced by planned roads such as these; for example, the panhandle of RS 1763 and the narrow RS 1248 were apparently designed to provide road access (Leach and George, 2012b)⁵. Brent George, a registered surveyor, has reviewed the deed records diagrams from 1852-1865 and notes that the road through old RS 579 (presently Robinsons Bay Valley Road) was probably the old packhorse road into the valley. This road stretched from the valley mouth to 30-40 m inland of the present-day Sawmill Road that fronts the mill cottage; it was dedicated 22 January 1862, but the transaction was not recorded for several years, in 1865 (George 2008:5-6). Sawmill Road probably did not exist at the time (Leach and George 2012b), and footbridges (Mould 1991:21) and stream fords were used to traverse this area until the early twentieth century.

Thomas Hughes passed away in 1865, and his estate was put up for sale (Lyttelton Times, 17 June 1865). It was advertised as adjoining Mr. Pavitt's Estate, and consisted of two comfortable well-built houses, three acres of orchards, work and farm animals, and the sawmill. Sections RS 1763 and 1764 were then purchased by Saxton and Williams from the mortgage holder (13 November 1865, Deeds Index, Record 13611/25D 393), who probably assumed ownership upon Hughes' passing.

John Pavitt (age 70) also died in 1865, and in his obituary was listed as a resident of Robinsons Bay (Lyttelton Times, 13 May 1865). At about this time, RS 579 was put up for sale (Press, 27 April 1865). The advertisement listed 100 acres, including fenced paddocks, stream, a 10-room house and out-buildings, orchard, garden, stockyard, milk-shed, &c. The deed record for the Pavitts' main landholding that included Woodlands, RS 579, shows that it was subsequently leased to Saxton and Williams (13 November 1865, Deeds Index, Record 15061/30D 180) at the same time they purchased the sections from Hughes' estate in 1865. The Pavitts' section was not purchased by Saxton and Williams, however, until almost a decade later (15 January 1874, Deeds Index, Record 40587/67D 596). In 1874, Frederick Walter Williams lived in the mill cottage, while his partner George Saxton occupied the Woodlands property where he planted English trees including a walnut plantation and large orchard, (Ogilvie 1990:170).

⁵ Note that pertinent information on road histories is presented herein, but for a thorough investigation of the roads of Robinsons Bay, see Leach and George (2012b).

Table 2. Historical land record summary for Robinsons Bay sawmill site.

Owner	Date	Section Nos.
Richard Jackson Hughes	1 April 1856 23 January 1861	RS 1763 (Crown Grant) RS 1764 (Crown Grant)
Thomas Jackson Hughes	23 January 1861	Section 1763 & 1764
Hugh Percey Murray Aynsley, John Thomas Peacock	11 February 1861	Section 1763 & 1764 (Deed 7D/592)
George Henry Saxton, Frederick Walter Williams	13 November 1865	Section 1763 & 1764 (Deed 25D/393)
George Henry Saxton, Frederick Walter Williams	14 March 1873	Section 1248 (Vol III 210/211)
George Henry Saxton	5 October 1881	Section 1763 & 1764 (Deed 99D/790)
The Canterbury College	3 May 1898	RS 1763, 1764, and part 579 (Deed 178/116)
Christopher Bodkin Thacker, John Robert Thacker	6 June 1899	Lot 8 and part Lot 9 DP 1410 (556.1570 ha; 25 October 1898 plan) (Deed 183/262)
Frederick Wynn Williams, Arthur Leslie Williams	8 June 1910	As above (Deed 183/262)
The New Zealand Insurance Company	9 September 1947	As above (Deed 183/262)
Frederick James Williams, Orville Henry Tosswill Williams	10 February 1953	Lot 1 DP 16571 (115.2342 ha; 30 October 1952, subdivision of Lots 4, 6, & part 9, DP 16571) (Title 571/35)
Orville Henry Tosswill Williams, Ronald Martin Young	13 February 1975	As above
Murray Thacker, Luis Thacker	4 April 1986	As above
(as above)	17 May 2000	Lot 2 DP 82749 (114.77 ha; the subdivision of Lot 1 DP 16571 separated out the mill cottage)
Christchurch City Council	20 April 2021	

7.2 History of Robinsons Bay sawmills

7.2.1 Pavitt-Farr Mill (before 1865)

The first timber produced in Robinsons Bay was by the Pavitt family, who felled trees and pit-sawed them to build a dwelling; they also supplied some of this pit-sawn timber to builders of a church in Christchurch (Mould, 1991:16).

By early 1855, the Pavitts and their brother-in-law Samuel Charles Farr had designed and erected a waterwheel-powered sawmill in the valley, which was inspected by Henry Sewell on 26 February 1855 (MacIntyre, 1980:132). It had a vertical circular saw and included an 18-ft.⁶ diameter overshot wheel, and a nearly 100-ft. flume on trestles to direct water to the wheel. The wheel's rim and buckets were made of totara, and the stays of kowhai (Mould 1991:20). This work also included ordering metal fittings and equipment for blacksmith's workshop, where manuka charcoal was used as there was no mineral coal available (Farr, 1900:56-57). Farr's recollections described many aspects of the buildout:

"Messrs. Pavitt had bought 100 acres of land in Robinson's Bay. About three-fourths of it were covered in a dense primeval forest. The trees - black and white pine, totara, manuka, kowhai, koanini - were most of them of large size, and they resolved to erect a sawmill if possible. I was counseled about it, though I had never seen a mill. I had, however, read about them, and offered to make a model of one to a scale, assuming that if the miniature form would act it would be quite safe to erect a large one. I began the pattern at once, and made the frame complete, then formed and fitted the machinery. Having a lathe I turned the wheels out of dry kowhai, and formed the cogs out of the solid. When it was complete the model worked to our satisfaction, cutting by hand power small pieces of wood very truly. The saw was a vertical one, tightened in frame by screws of my own make. This success so far was encouraging. The first thing then to be done was to ascertain the power we could get to drive the machinery. So the levels had to be taken through the thick bush from an angle in the stream high up in the valley. The level we used was a very primitive one, and was made by fixing three tubes of glass, in which were spirits, to a board attached to a tripod and adjusted by wooden screws, one tube lying transversely and the others longitudinally. Crude as it was it enabled us to find and prove a very good fall for an overshot wheel, 18 feet in diameter, the leverage of which with ample water would provide sufficient power. I joined with them in a formal partnership, and we began in earnest, week in, week out, some sawing timber for the mill, some forming a reservoir, others clearing a track and digging a viaduct. We constructed a flume nearly 100 feet long on trestles to convey the water on to the wheel. The wheel was three feet wide inside the buckets. The gudgeons, rings, and pillow blocks with brass bearings came from Sydney, and everyone who saw the wheel called it a perfect model." (Farr 1900:54, 56-7)

A tramway was also constructed 2-1/2 miles up into the valley, fourteen bridges were built over the creeks, and a small dam was formed just above the mill (Mould, 1991:24; Ogilvie, 1990:167). The sawmill worker's "huts" were built along the creek banks with spare timber from the mill (Mould, 1991:25-6).

Samuel Farr and the Pavitts became formal partners in the sawmill operation (Farr 1900:57). Farr recalled that the mill had been working, perhaps not for very long as he mentions they were "about to realize their reward" when a "terrible, heavy fire came down through the bush, devouring everything dry, and being furiously driven by the wind." He went on to say the saws and tools were saved at great risk, but the mill and a quantity of cut timber had

⁶ Measurement is Farr's recollection; Mould (1991:4) noted that when she resided near the site in the 20th century the wheel was 24 ft., and remarks on the discrepancy. It is probable that as the Bay (and wider Banks Peninsula) had a history of destructive fires during this era, the wheel was rebuilt at some point.

burned to the ground. The date of this fire is not known, but it could have occurred in 1854 (Leach and George 2012a:7). It is likely the operation, which involved a great deal of infrastructure, was rebuilt in the same location after the fire. It is of note that the location of the original millworks appears not to have been documented. Interestingly, it seems not to have been located on the Pavitt's property (RS 579) but was instead a short distance inland (see Figure 9) on land that would have been owned by the Crown at that time (see Leach and George, 2010a; Leach and George, 2012a).

Work was also taking place at the bay shore, where starting in 1855, the mill owners built several ships including the *Thetis* (a 27-ton ketch) at the beach to transport timber to market in Lyttelton (Andersen 1927:191, citing one of the Pavitt brothers' children; Mould, 1991:25; Ogilvie 1990:168). At some point the mill owners also put up a jetty which, along with the tramway that connected to it, were long ruined by the turn of the century. (Jacobson, 1914:292).

A small cottage associated with and adjacent to the sawmill site was built between 1855-1860 by undetermined persons. It is known today as the mill or Pavitt cottage (Maxwell and Huebert, 2020). The original structure was comprised of the two ground-floor rooms, a sitting room, and one bedroom, and a lean-to structure over what is presently the kitchen. The loft and stairs would have been part of the original structure.

In August 1859, a newspaper article described the Messrs. Pavitt's sawmill in Robinson's Bay as a busy mill in "full work" (Lyttelton Times, 10 August 1859). Milling at this time was, however, dangerous work. One of the Pavitt brothers (Henry) was injured in a mill accident and died 7 June 1860 (Lyttelton Times, 1 August 1860). The Pavitts' mill and mill workers' huts were subsequently advertised for sale in 1860 and 1861 (Figure 10), along with their large section that included the "Woodlands" estate (RS 579) (Lyttelton Times, 17 April 1861). The mill was described as nearly new and had probably been refurbished before being put up for sale. In later sale advertisements for the Pavitts' holdings in Robinsons Bay, however, the mill had been removed from the listing (Lyttelton Times, 24 September 1863).

7.2.2 Thomas Hughes and the Hughes Water Sawmill (1860-1865)

Thomas Jackson Hughes built and ran several schooners that transported timber for the Pavitt brothers (Amodeo, 2019:202), and he had been foreman of works on construction projects for the Canterbury Association. Hughes had shrewdly acquired pasture rights to land in Robinsons Bay, which secured his pre-emptive rights to the property and prevented the Pavitts from extending their holdings in the valley (see Leach and George, 2010b:9).

In early 1860, Hughes entered the milling business in Robinsons Bay when he brought two timber cutting saws to the valley and his stated intention was to put them on his land⁷. As previously discussed, he had acquired his two sections in this locality from his son in 1861. Details as to the location and type of Hughes' mill are uncertain, though a second overshot wheel-driven mill in the lower valley was probably not feasible (Leach and George, 2012a).

There may have been some financial strain in starting his business, as in February 1861, Hughes assigned his interests in land and sailing vessels to creditors (Deeds Index, Record 3311/7D 592). Historical sources do suggest, however, that Hughes had built his own mill by late 1861 (Press, 28 December 1861; Jacobson, 1914:290).

By 1862, one of the Pavitt brothers (Frederick) had bought out his brothers' interests and Hughes had joined him and his father in the mill partnership (Ogilvie 1990:168). It appears

⁷ Copy of handwritten letter from Thomas Hughes, Contractor, Lyttelton, to His Honour the Superintendent of Canterbury, dated 26/4/60, provided to the authors by Brent George.

that the two operations were merged. Hughes appears to have taken a management role in the successful milling business, and over the next few years, newspaper advertisements direct able men to apply to him at the Robinsons Bay mill for two saw bench men (Lyttelton Times, 6 April 1861), 10-12 good sawyers (Lyttelton Times, 19 July 1862), and a blacksmith (Lyttelton Times, 13 June 1863).

Destructive fires, due to dry conditions and intentionally set fires, continued to be a problem on Banks Peninsula during this period. An 1863 newspaper article describes conditions on the peninsula as very dry and recounts destructive fires in almost every bay where there was large timber, affecting some of the best timber supplies in Robinsons Bay and other valleys (Lyttelton Times, 7 February 1863).

The relationship between Hughes and the remaining Pavitts appears to have been strained. Issues had emerged by 1862, when Hughes claimed to have no way of shifting milled timber to the bay as he did not have an agreement to pass through the Pavitts' land (Press, 28 December 1861). Hughes' requests to the provincial government for roading to "his" Robinsons Bay sawmill persist to late 1862 (Letters on file, Archives NZ, Christchurch). A road reserve was eventually granted and built through the flatter northwestern side of Pavitts' RS 579; it exists today as Robinsons Bay Valley Road (George 2008:6). The work done by a group of mainly ex-goldminers nicknamed the "Barracouta Gang," who were brought to Banks Peninsula after being hired by Hughes' agent in 1863 (Lyttelton Times, 14 February 1863). The schooner that carried them had been built in 1860 by Hughes in Robinsons Bay (Anonymous, n.d.:7). Some of the Gang later settled in the valley, including Henry Tizzard, John Duxbury, William Whitfield, and others (Mould 1991:32).

The date cited for Hughes' takeover of the operation is 1864, and it became known as the Hughes Water Sawmill (Mould, 1991:26, 32; Ogilvie 1990:169). Thomas Hughes died in an accident at the mill the following year, attempting to free a log jam.

TO CAPITALISTS, MERCHANTS,
AND OTHERS.

FOR POSITIVE SALE.

In consequence of a contemplated
DISSOLUTION OF PARTNERSHIP.

ALL THAT VALUABLE
FREEHOLD PROPERTY,
situated in Akaroa, and known as
WOODLANDS,
consisting of
ONE HUNDRED AND EIGHTEEN ACRES
FREEHOLD LAND,
SAWMILL,
THREE DWELLING HOUSES,
GARDENS, ORCHARDS,
SAWYERS' HUTS, &c.,
the property of
MESSRS. PAVITT, BROTHERS.

MR. W. D. BARNARD has been favoured
with instructions from Messrs. Pavitt, Bros.,
to Sell by Private Contract, the above Valuable
Freehold Estate.

This splendid land was one of the first selections
made from the New Zealand Company, is of the
richest quality, and admirably adapted for business
purposes, having a large frontage to the beach
where vessels can load and discharge in any weather.

There are sixty acres cleared, substantially fenced,
and subdivided into convenient paddocks, twenty-
five acres of which are well laid down in English
grasses; the remainder of the land is heavily
timbered.

THE SAW MILL

is nearly new, in good working order, and capable
of cutting ten thousand feet of timber per week,
having been erected regardless of expense. There
is a large and constant supply of water.

THE PRINCIPAL DWELLING HOUSE

is substantially built and very commodious being
45 feet by 35 feet. It contains drawing room,
dining, and two sitting rooms, kitchen, dairy,
wash-house, and four large bed rooms. It is plea-
santly situated on rising ground, and commands
one of the finest views on the Peninsula.

THE GARDENS AND ORCHARDS

are well stocked with the choicest fruit trees, &c.

THIS SPLENDID MARINE RESIDENCE

has only to be seen to be admired and appreciated,
contrasting strongly in its natural beauties with
the unvaried monotony of the plains.

For further particulars apply to Messrs. Pavitt,
Brothers, Akaroa, or at the offices of

MR. W. D. BARNARD,

Cashel Street, Christchurch.

Title—Crown Grant. Terms liberal.

Figure 10. Advertisement for sale of Pavitt's holdings in Robinsons Bay (Lyttelton Times, 2 January 1861).

7.2.3 Matlock Mill / Robinsons Bay Steam Sawmill (1865-c. 1877)

After the death of Hughes and also John Pavitt (father) in 1865 (Lyttelton Times, 11 March 1865; Mould 1991), the mill was sold. The sale included 2,004 acres, and it was described as being sold by the Pavitts and Hughes (Jacobson and Stack, 1940:196; Mould 1991:33), suggesting joint ownership. The buyers were George Saxton and Frederick Walter Williams, who had been sawyers at a mill in Le Bon's Bay. They replaced what is said to have been an "all the aging plant" on the same site, and converted it to steam-driven engine power, renaming it Robinsons Bay Steam Sawmill and/or Matlock Mill (Ogilvie 1990:169). Mills around the area were being converted to steam power at the time, and this is attributed to water becoming scarce as the bush was felled (Mould 1991:33).

In 1865 one of them changed ownership, and was greatly enlarged, a jetty and tramway were added, and nearly all the settlers found employment in the mill. In a short time no less than 1,000,000 feet of timber was produced yearly. The bush was worked until its exhaustion in the eighties. (Clark 1926:19).

At this time, Hughes' sections RS 1763 and 1764 were sold to Saxton and Williams (13 November 1865, Deeds Index, Record 13611/25D 393). The sale advertisement for Hughes' estate (Lyttelton Times, 17 June 1865) described it as adjoining Mr. Pavitt's estate, and consisting of "one of the finest saw-mills in the province, in first-class working order", along with his dwellings, orchard, and stock. This is a notable inconsistency in that the mill was advertised as in excellent working condition, and the Saxton and Williams purchase was described as rather worn out.

While neither of the older mills cut a great quantity of timber (Clark 1926:19), the updated mill (Figure 11) was very successful, turning out in excess of one million feet of timber annually (Mould 1991:33), and employing 30-40 workers (Ogilvie 1990:170). The approximately 50 bullock team dragged logs down the hills and were fed by the 40 acres of hay farmed on the flat (Jacobson 1914:291). Saxton and Williams built a butcher shop and store onto the mill cottage, and nearby, a schoolhouse and teacher's house (the latter c. 1870, Mould 1991:30; or 1878, Andersen 1927:191). The schoolhouse was on the corner of Williams' "grounds" (Anonymous, n.d.:13), probably on the same section as the mill cottage.

At this time, another (or possibly rebuilt) tramway was put in place from the mill to the beach, using horses to pull milled timber for export. The new mill owners also rebuilt the jetty (Andersen 1927:191). The inland log-transport tramway with its many bridges might also have been reworked around this time (Ogilvie 1990:170)⁸.

⁸ The description provided by Ogilvie is redundant with that described for the original 1850s mill buildout by Mould (1991:24-25). It has been interpreted as a retrofit.



Figure 11. Saxon and Williams' Robinson Bay Steam Sawmills, known locally as the Matlock Mill, operated from 1865-c.1877. Flume and waterwheel upper left; blacksmith shop right. (Ogilvie 1990:169)

Several artists' renderings characterise the lower valley c. 1868-1870. A watercolour by W. Hodgkins (Figure 12) shows the log timber track surrounded large trees, which it appears were still present in the back valley in 1868. The small worker's cottages and the log tramway and small bridge over a creek are illustrated in Figure 13.

An expansive c. 1870 painting of the valley from the back looking towards the bay (Figure 14), providing a wide view of the valley floor and millworks during this period. The sawmill, flume, and waterwheel are to the left of centre. The mill cottage is visible in the centre of the image, surrounded by the stream on the right and spillway on the left. A road inland of the mill buildings connects them to a clearly defined road behind—an important access route up into the valley. The timber tramway can be seen as long arc curving from the mill south

towards the bay. To the right of the cottage, a dark-roofed structure is probably the schoolhouse, and farther to the right partly obscured by the tree is likely the schoolteacher's house. Other structures are visible, including a dwelling just to the left of the mill. It can be seen that much of the valley floor has been logged, as there are many stumps and very few large trees. No date or name appears on this painting; Mould (1991) indicated it was in the collection of Wynn Williams, a descendant of the former mill owner.

By 1877, it was rumoured that the mill, "famed for the excellent quality of the timber and style of cutting," was to be closed because logs had to now be transported to the mill by tramways up to three miles long—distances that were too great, and timber prices too low (Akaroa Mail, 25 May 1877). The mill's waterwheel remained in place for approximately fifty years, until around the mid-twentieth century (Mould 1991:42). The old tramline used to haul timber to the wharf, and the oldest wharf, were still recalled by Duxbury descendants later in the twentieth century (Anonymous, n.d.:14). One of the millworkers' slab cottages (Figure 15) stood adjacent to the sawmill site until about ten years ago.

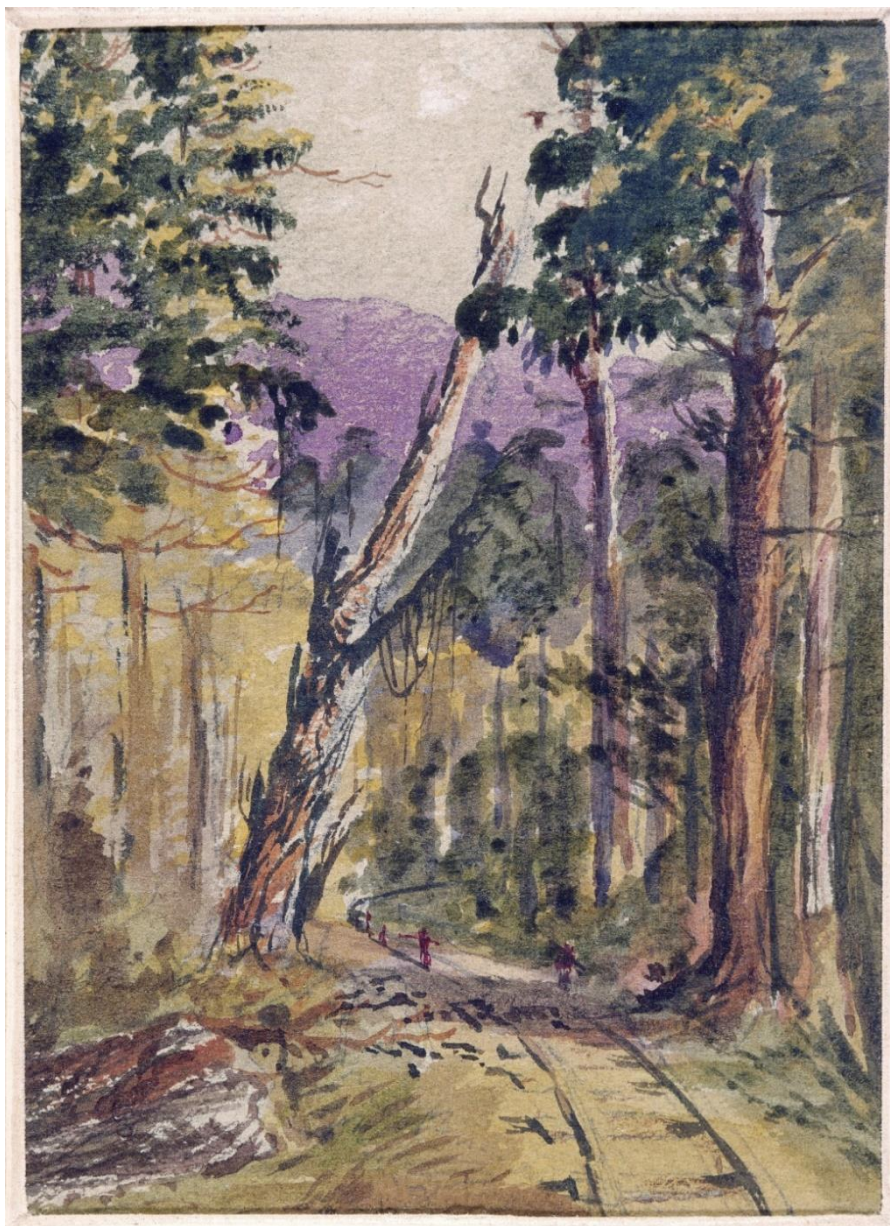


Figure 12. Timber track. Robinson's Bay, Akaroa. [1868]. William Mathew Hodgkins, 1833-1898. Ref.: A-027-007. Alexander Turnbull Library, Wellington, New Zealand.



Figure 13. Logging totara. Robinson's Bay, Akaroa [March 1868]. William Mathew Hodgkins, 1833-1898. Ref.: A-027-006. Alexander Turnbull Library, Wellington, New Zealand. Note sawmill worker's cottages and tramway carrying logs down the valley.



Figure 14. Robinsons Bay sawmill and mill cottage c. 1870 (Mould, 1991:7, at that time the artwork was in the collection of Wynn Williams; Mould's photograph of the original artwork provided by the Akaroa Museum).



Figure 15. Kotlowski Cottage, an old mill workers' dwelling across Sawmill Road adjacent to the old mill site, stood until c. 2010. Watercolour painting by Rev. George Clark. (Source: Sue Church)

7.3 Transition to farmlands (1877-onward)

Saxton and Williams purchased additional sections in the valley in the years that followed and farmed them once they were cleared, for a total of 2,038 acres (Leach and George 2012b:5). George Saxton, who by this time owned most of the land at Robinsons Bay and employed many of its residents, created an oak plantation on the rolling hills behind the mill (Mould, 1991:37; also see Figure 18 for location). Saxton also ran a sheep station (Jacobson, 1914:292).

By 1878, the population of the valley was 117, however the mill was in decline and the mill school had closed (Ogilvie 1990:170). Williams later sold out his interest, departed the area, and moved to Christchurch (McPherson, 2022).

Throughout the valley, dairy cattle and sheep were farmed on lands that had been clear-cut, and the tramway was repurposed to haul cheese along wharf for export (Mould, 1991:36). An 1891 map of the area shows a mosaic of numbered sections existed throughout Robinsons Bay at the time, as well as numerous “paper roads”. A photograph of the bay from the eastern shore that dates to approximately this period shows a rocky shore which lacks the large volume of silt that is present in the bay today (Figure 16).



Figure 16. The Robinson's Bay, Akaroa Harbor (sic), New Zealand, by Burton Brothers Studio. Source: Te Papa, C.015698. No date; Burton Brothers biography suggests c.1880s. Onawe is behind boat. <https://collections.tepapa.govt.nz/topic/954> [Accessed 23/04/2020].

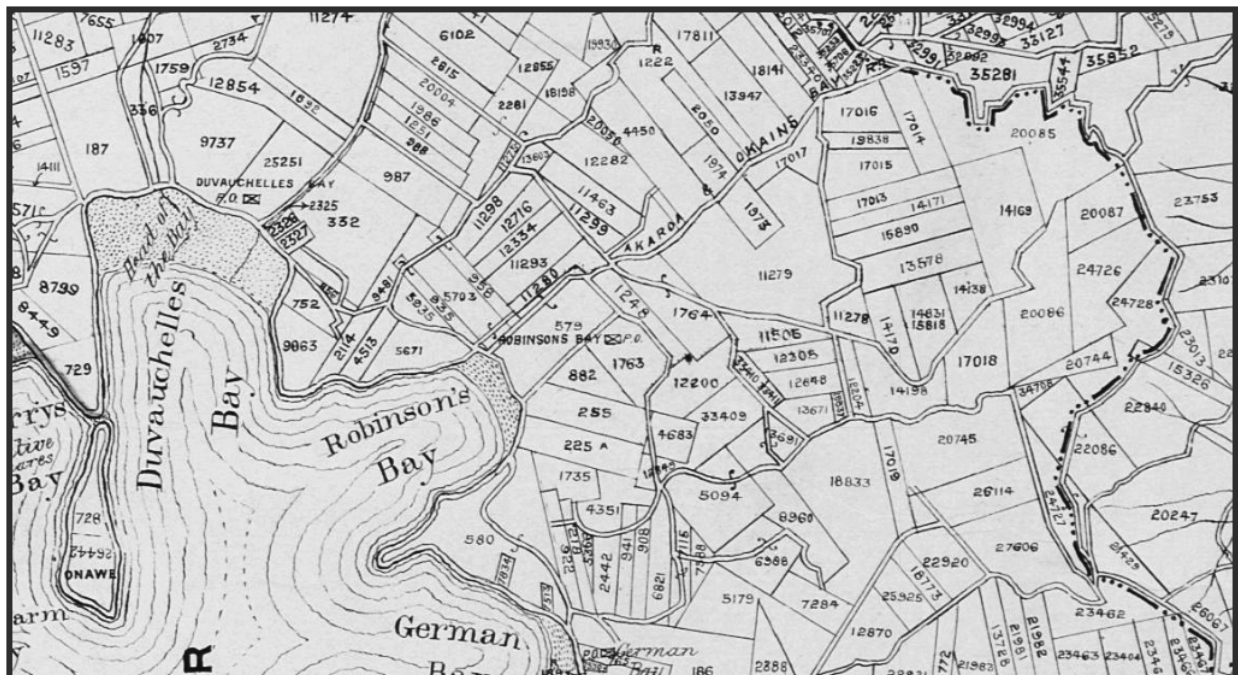


Figure 17. Section of "Map of the County of Akaroa, 1891, shewing Road Board districts etc.". Christchurch City Libraries, File No. ATLmaps ATL-Acc-3147. <https://christchurchcitylibraries.com/Heritage/Maps/ATL-Acc-3147.asp>. [Accessed 28/04/2020]



Figure 18. Excerpt from Plan for the Subdivision of the Saxton Property, 1898 (Mould, 1991:38).

Around 1900, George Saxton sold most of his holdings. Many of the smaller farm plots were sold to his former employees, and twenty farmers were listed in the valley in 1900 (Ogilvie 1990:169-171). An 1898 map of the proposed division shows some rearrangement of the sections occurred at this time (Figure 18). The figure lists the names of some of the new landowners, including Duxbury, Morgan, Hayward, Tizzard, Mould, and others (Land Title 178/116, copy provided by the Akaroa Museum), some of whose descendants are still living in the area. Several structures of interest are marked, including a homestead (14B, possibly the Pavitts' old principal dwelling "Woodlands"), the former schoolteacher's house labelled "Mr. Duxburys". The mill cottage is marked as a house and garden bounded by a dotted line, and there is a nearby shed which may have been on or near the site of the old mill. On the road inland, the location of a cottage, woolshed, and Saxton's oak plantation are clearly marked.

The approved subdivision plan was DP 1410 (Figure 19). Around the mill cottage site, the bordering RS 579 became #14D; a small northwestern portion of RS 1764 became DP 17096 (possibly #1, figure unclear); the southeastern portions of RS 1764 and 1248, and most of RS 1763 became #11A-B; much of RS 1764, the panhandle of 1763, and northwestern part of 1248, and many properties to the east became #9 (delineated on figure as DP 16571). In 1899, this large section which included the site of the old sawmill went to the Thacker brothers (see Table 2), farmers from the neighbouring Okains Bay (Mould 1991:42), who owned it for a little over ten years.



Figure 19. Approved subdivision plan (DP 1410) of the Saxton property in 1898.

A c. 1906 photograph (Figure 20 and Figure 21) shows the defunct waterwheel, timber fencing, and the mill cottage. Sometime after 1912, a bridge was erected across the creeks near the old mill and mill cottage to improve access for landowners (Leach and George 2012:7).

One of the early farmers of Robinson's Bay was John Duxbury, formerly of the "Barracouta Gang". Duxbury purchased his first farm in 1870 in Robinsons Bay and lived there with his family for the rest of his life, in a home that was demolished in 1930 (Anonymous, n.d.:7-8). By 1882, Mr. Duxbury was a farmer with stables, an orchard, pigs, fowl, and a dairying operation that turned out over 3 tons of cheese annually (Akaroa Mail, 28 April 1882). A cheese factory and dairy were also operated out of structures adjacent to the old schoolteacher's house, across the valley road from the mill cottage, from as early as 1893⁹ into the early twentieth century (Figure 22).

On Lot 14B, the 10-room house at Woodlands still stood in 1897 when Saxton advertised it for sale on 2,004 acres of prime land (Timaru Herald, 27 November 1897). The house was rebuilt just a few years later, in 1902, and the ageing structure still stands today at 38 Robinsons Bay Valley Road (pers. comm. Sue Church, current owner).

Henry Hayward, a farmer and former gardener to Saxton, purchased Lot 14D in September 1898 (Land Title 180/211, provided by Akaroa Museum) and built a dwelling on it (Leach and George, 2012b:5). The structure, which no longer exists, would have been very close to the old mill and, today, near the house of Eric Ryder on Sawmill Road. A historical text from the early 1900s notes that "The house of the Pavitts was situated a few yards away from Mr. William's present dwelling." (Jacobson, 1914:291), which could be making reference to the close proximity of the demolished structure (the Pavitt's house) and the mill cottage (William's dwelling).

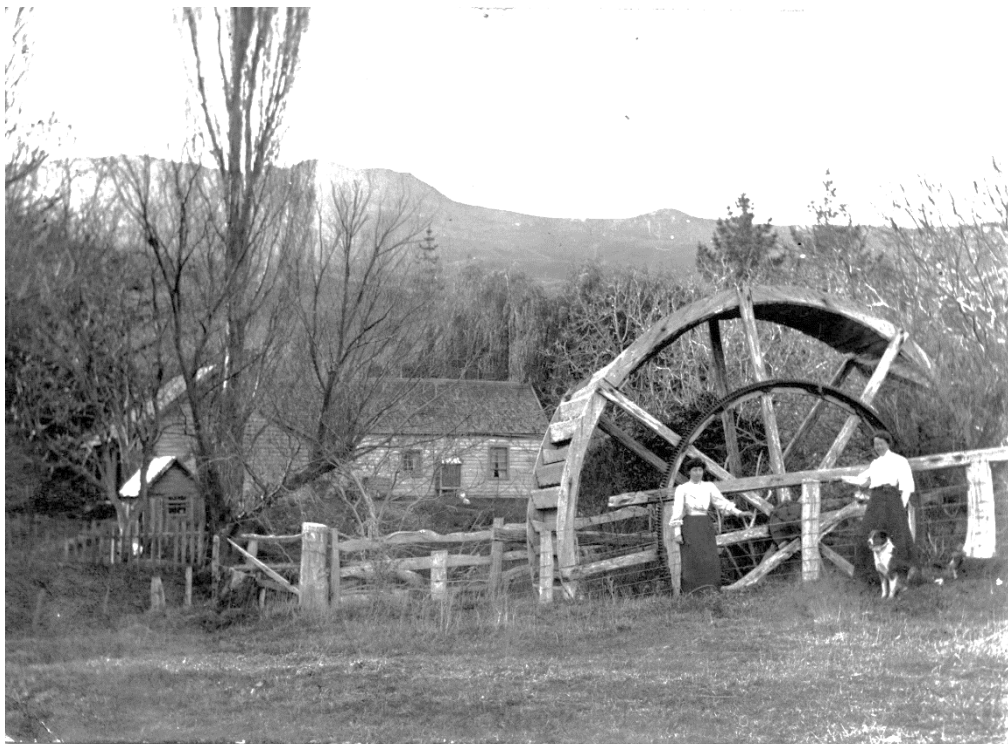


Figure 20. The old mill waterwheel c. 1906 (Source: Marie Rhodes).

⁹ Pencil notations on timber inside cheesery, seen by the authors.



Figure 21. The old mill waterwheel and stream, c. 1913, with Daphne Williams (granddaughter of former mill owner) and others (Source: Sal McPherson).

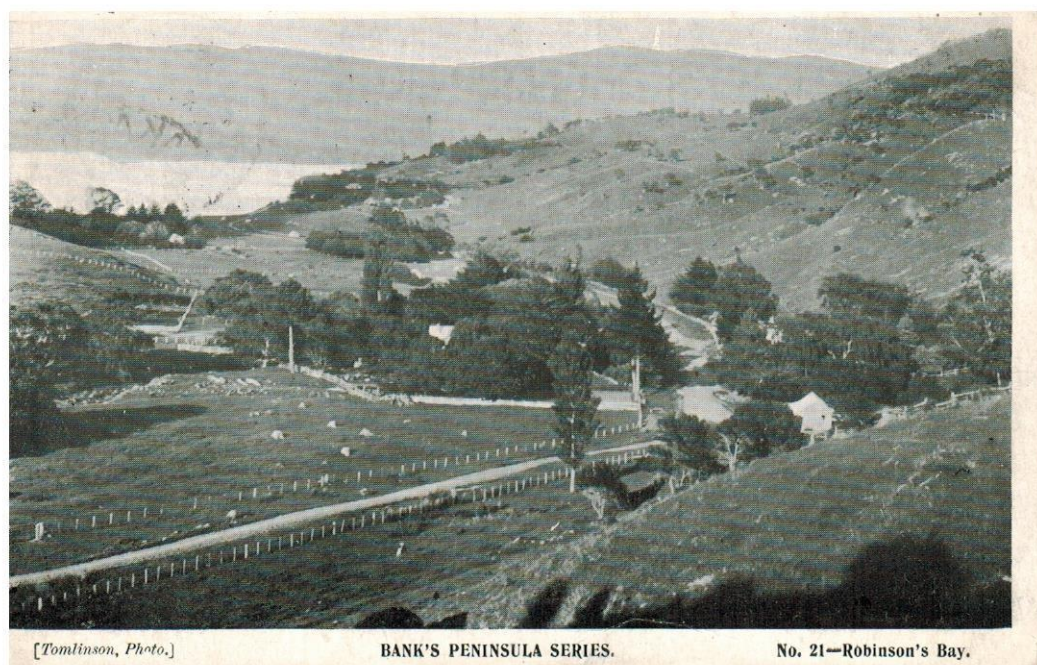


Figure 22. Robinsons Bay from inland slope, looking towards bay. Photo postcard, undated, probably early 20th century. (Source: Sue Church, 2020)



Figure 23. Robinsons Bay jetty with expansive view of valley. Undated photo, probably early 20th century. (Source: Sue Church, 2020)



Figure 24. The dilapidated old mill waterwheel, c. 1930s (Source: Marie Rhodes).

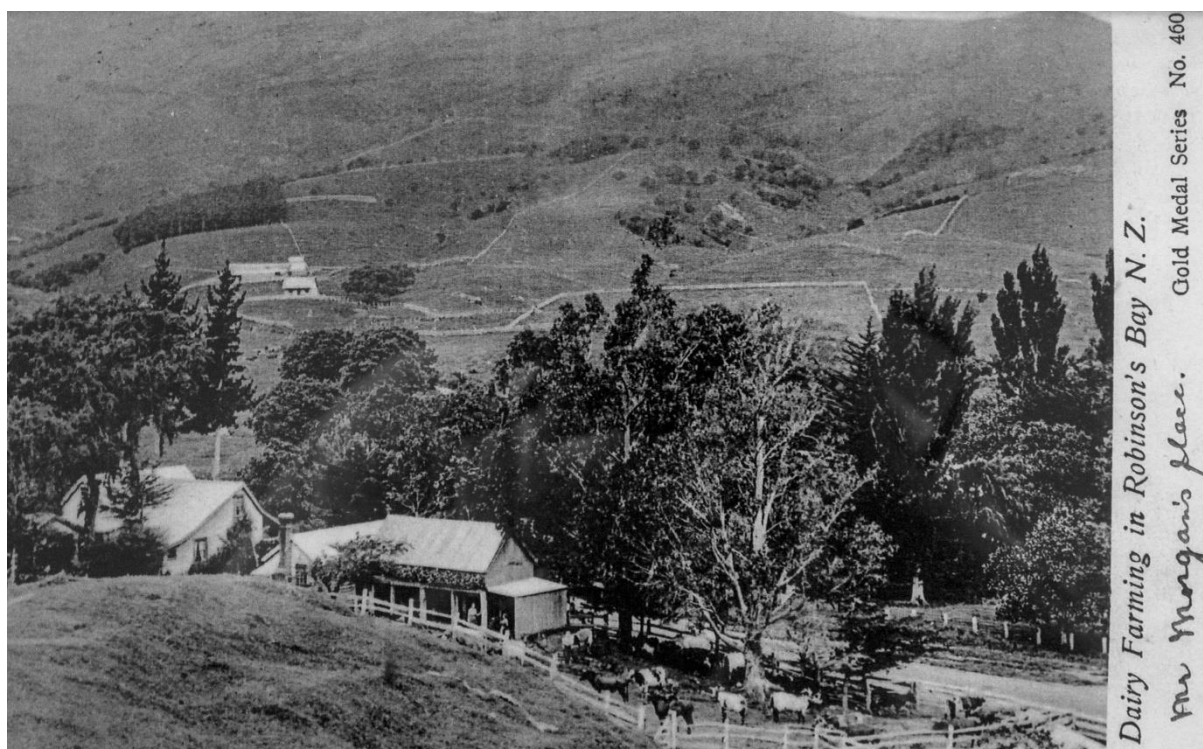


Figure 25. Dairy Farming in Robinson's Bay N.Z. (Gold Medal Series No. 460) in the early 20th century. Note handwritten "Mr Morgan's place". Photograph courtesy of Chris and Tracey Pottinger.



Figure 26. Same view of the valley as above image, in 2020. Note old oak grove, upper left.



Figure 27. Oak stand planted by Saxton in the late 1800s. Photographed in 2020.

7.4 Twentieth century

In 1910, the portion of land that included the old mill was purchased by brothers Frederick Wynn and Arthur Leslie Williams (Deed record 183/262¹⁰), sons of the former mill owner. They farmed it until it was sold to a Thacker descendant (Mould 1991:42). The Williams brothers (Figure 28) also purchased the mill cottage in 1910 and retained it for much of the twentieth century. By 1911, the population of the valley had fallen to 83 (Andersen 1927:191).

Frederick Wynn Williams continued to live on the property, eventually taking up residence in the old cottage uphill behind the mill site in approximately the 1930s; it has been reported that this structure was already old at that time (McPherson, 2022). Several of his sons also lived in the mill cottage, including Orville and Jim who eventually repurchased some of the land. Frederick's descendants and their families continued to have strong ties to Robinsons Bay well into the mid-twentieth century (McPherson, 2022).

A 1940 photograph shows that by the mid-twentieth century, the waterwheel was upright but in very poor condition (Mould 1991:40). It is not known how long other structures associated with the mill were in place, but no recollections specifically mentioned them, and none are visible today. A dilapidated shed near the remains of the waterwheel (no longer standing by 2022 site visit) appears to have been built in the twentieth century. The abandoned nineteenth century cottage still stands a short distance uphill. It is uncertain whether it is in its original position and whether it was associated with the mill. The schoolhouse was located next to the mill cottage, near Robinsons Bay Road. No above-ground remains of the schoolhouse are visible today, although the vegetation was overgrown during site visits.

¹⁰ Copy provided by Brent George.

Many of the mill workers' cottages became farm sheds as they aged (Mould 1991:36, 38, and see Figure 15), and they were eventually demolished. The daffodils and roses planted around them persisted into the early twentieth century (Mould, 1991:25-6). In addition to these formal structures, there are some vestiges of the less formal "whares"—temporary structures built by the workers beside the creeks—remaining in more isolated forested locations up the valley. There are also house sites throughout the valley, which can be identified by the large, introduced trees and fruit trees still present, along with the recollections of the residents of the valley (McPherson, 2022, and others pers. comm.). A brick-lined well, on what is probably today a paper road, is located south of where the Pavitts' "Woodlands" was first built. Many of these features were recorded in 2020 (Maxwell and Huebert, 2020).

In the mid-1980s, the mill site, mill cottage, and surrounds were offered up as a reserve by Orville Williams but the proposal did not succeed (Mould 1991:42), and in 1986 the property was purchased by Murray and Luis Thacker (see Table 2). In 1987, the Historic Places Trust erected an interpretive sign next to the waterwheel axle, which had been placed on a platform near the mill cottage along Sawmill Road (Figure 29).

In 2000, the mill cottage was sectioned off and acquired and restored by descendants of the Pavitts. The interior of the cottage is largely intact and has not been significantly modernised, with much of the interior lining and some of the original floors present. The cottage grounds include a small shed, which is possibly one of the original nineteenth century structures.

Today, descendants of some of the original settlers and millers reside and/or farm in the area, and Robinsons Bay is a quiet rural community.



Figure 28. Frederick Wynn Williams (d. 1946, son of mill owner) with prize winning delphinium at a garden below the cattle yards across stream from cottage (Source: Sal McPherson).



Figure 29. Mill site in 1985, and the waterwheel axle on pedestal (Source: Marie Rhodes).

8 Site visit

Justin Maxwell visited the site on 11 April 2022. The survey was limited due to high vegetation cover at the time. Some photographs that were taken in 2020 while researching the neighbouring mill (Pavitt) cottage are also included in this assessment of the sawmill site.

Evidence of the valley's sawmilling heritage is still visible in many locations. Long furrows in the hillsides, formed as logs were dragged or slid down to the mill, are still present around the valley (Figure 30). These features are especially noticeable in grazed paddocks when the grass is short. Further evidence of the nineteenth century change to pastoralism in this location is visible in the form of the hand-sawn and drilled totara posts and rails, some of which are in their original locations. Others have been repurposed in structures such as the stockyard beside Sawmill Road.



Figure 30. Log furrows in Robinsons Bay hillside (Mould 1991:8).

There are above-ground vestiges of the milling activities within Lot 2 DP 82749 (Figure 31 to Figure 45). Historical aerial photographs suggest that there was a pond associated with the sawmill to the southeast of the cottage, and its imprint is clearly visible; it can also be seen on the ground. The dam impression is also visible, but the front of the dam that would have formed the downhill edge has been removed. There is still evidence of the raised berm on which there was once a wooden track used to pull logs down the valley to the mill. Associated with this track are the footings of bridges which once crossed the numerous creeks that run up the valley; these features also relate to the nineteenth century use of the site.

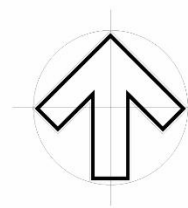


Figure 31. Likely site of old sawmill site is behind fence. Mill cottage is at far left, mostly obscured by trees. Photo taken from Sawmill Road in 2020.



Legal Information: Lot 1 DP 82749 - Record of Title CB470/511 Lot 2 DP 82749 - Record of Title CB470/512	
Prepared by B R George Licensed Cadastral Surveyor	Drawn by E R George Landscape Architect

Revisions	
A0	16/04/20 Initial Combined Plot
A1	18/05/20 Revised Plot



Drawing
Historical Sawmill Sites
 Project/Client
Pavitt Cottage Sawmill
Sawmill Road, Robinsons Bay

Job reference Drawing number
200518 01-01

Revision
A1

Project Date
Apr 2020

Scale @ A3
1:2500

Purpose of Issue
Information

Figure 32. Site plan of possible sawmill features, based on site visits and interpretation of aerial images and historical data. Provided by B.R. George, 2020.

Photographic evidence showed that the intact waterwheel stood adjacent to the mill cottage into the early twentieth century (see Figure 21). Today, the metal remains of the waterwheel are beside the heritage sign placed on the Sawmill Road verge in the 1990s. The platform on which the wheel hub was displayed has since collapsed and it lies on the ground (Figure 33 and Figure 34). While this evidence in itself does not necessarily indicate that the sawmill existed at this location in the nineteenth century, the combination of existing above-ground remnants of the sawmilling archaeological landscape, historical photos, aerial photos, historical descriptions, and the artists' renderings all strongly suggest that the sawmill was at this site, most likely in the location shown in Figure 31, and in Figure 32 at the end of the flume. Twentieth-century landscape modifications, along with the continued natural changes to creek beds and sediment build-up, have removed or buried much of the sawmill landscape. Only through a combination of remote sensing and ground-truthing will it be possible to determine with confidence the exact location of the various structures that were associated with the sawmilling period.



Figure 33. Waterwheel remains in 2020.



Figure 34. Waterwheel remains in 2022. Scale units: 20 cm.



Figure 35. Likely mill site circled in red. Mill cottage behind poplars, 2020. Facing west.



Figure 36. Likely mill site 2022, facing west.

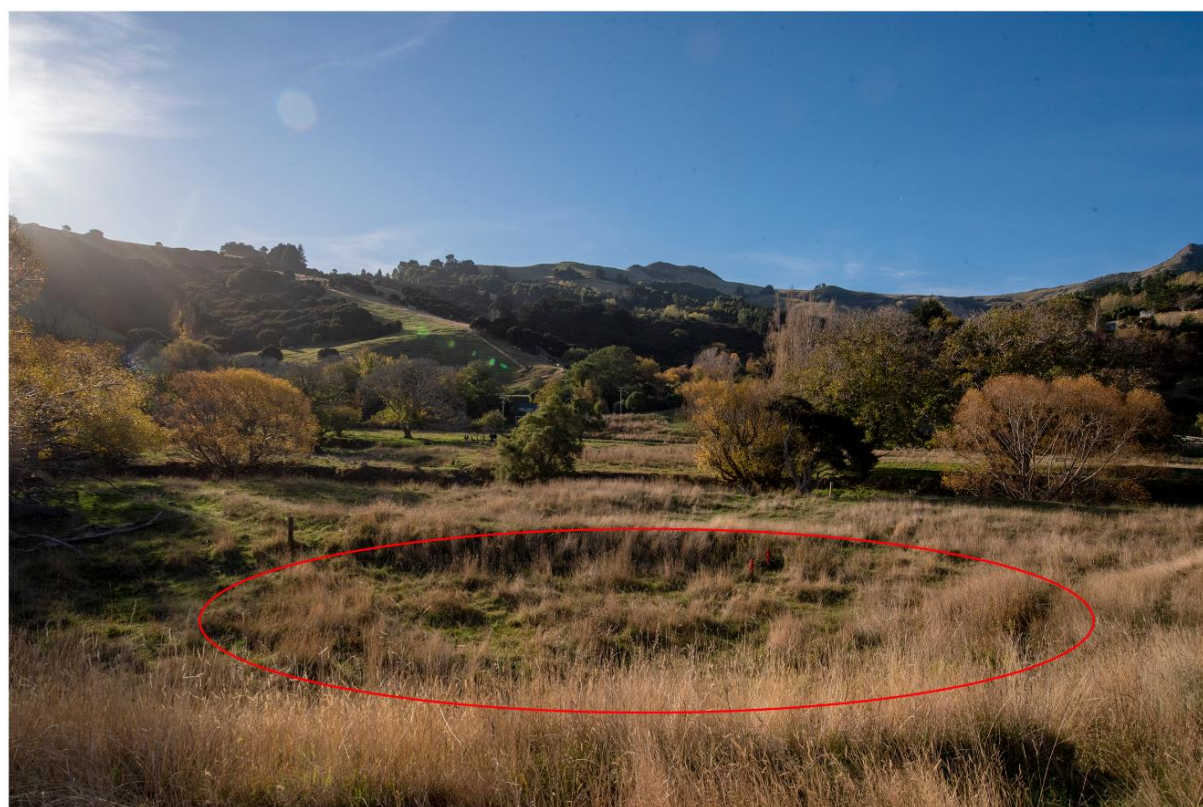


Figure 37. Possible location of mill dam in red, 2020. Facing north.



Figure 38. Possible location of mill dam in red, 2020. Facing south.



Figure 39. Section of tramway, facing southeast 2022. Scale units: 20 cm.



Figure 40. Section of tramway, facing northwest 2022. Scale units: 20 cm.



Figure 41. Bridge foundation, 2020. View south.



Figure 42. Bridge foundation, 2022. View south. Scale units: 20 cm.



Figure 43. Probable spillway beside water wheel, 2022.



Figure 44. Probable water race above nineteenth century cottage, 2022. Facing southeast.



Figure 45. Probable water race above nineteenth century cottage, 2022. Facing northwest.

Historical accounts indicate that numerous dwellings and associated buildings were present around the sawmill and mill (Pavitt) Cottage. The only likely indications of these structures today are the numerous introduced trees growing there, including old walnut trees and fruit trees. Many of these trees are very large and form an important part of the historic landscape of the area. The stand of old oak trees planted by Saxton in the 1880s lies on the south-eastern boundary (Figure 46 to Figure 48). This forest should be treated as part of the historical landscape here in the same way that groves of karaka trees (*Corynocarpus laevigatus*), planted by Māori are treated as archaeological and culturally important sites.



Figure 46. Oak forest in 2022.



Figure 18. Detail of oak forest in 2022. Scale units: 20 cm.



Figure 48. Detail of oak forest in 2022. Scale units: 20 cm.

A nineteenth century wooden cottage is also present on this section (Figure 20 to Figure 27). This cottage was present in its current position by 1898, as it is depicted on a survey map from that time (see Figure 18). The cottage is currently in poor condition. It is partially open to the weather and the interior floors and walls appear to be unsound. The building was not entered during the survey, as it was unstable. The last known person to occupy this cottage was Wynn Williams.



Figure 20. Nineteenth century cottage with tramway track in foreground, 2020. View west.



Figure 21. Nineteenth Century cottage, west side. Scale unts: 20 cm.



Figure 22. Nineteenth century cottage, east side. Scale units: 20 cm.



Figure 23. Nineteenth century cottage, north side. Scale units: 20 cm.



Figure 24. Nineteenth century cottage, south side. Scale units: 20 cm.



Figure 25, Nineteenth century cottage fireplace.



Figure 26. Nineteenth century cottage front (west) room.



Figure 27. Nineteenth century cottage, detail of construction. Note hand-planed rafters.

9 Archaeological and Other Values

In 1990, Robinsons Bay was referred to by a historian as a very well-preserved landscape: “Few communities have such a range of pioneer cottages, dairies, cheese rooms, stables and outhouses in such original condition.” (Ogilvie 1990:172). The CCC District Plan has identified two built structures in the valley as being of historical significance: the cottage at 5 Sawmill Road (see Maxwell and Huebert, 2020), and the adjacent schoolmaster’s house at 99 Robinsons Bay Road. In addition, in a 2007 Banks Peninsula landscape study (Miskel, 2007) prepared for the CCC described Robinsons Bay, along with Takamatua, as having “important cultural and heritage values”, and Environment Canterbury has identified both bays as significant natural areas.

The Robinsons Bay sawmill, operational by 1855, was the first water-driven mill in Canterbury. It is associated with the earliest important industries on the Peninsula: sawmilling and shipbuilding. As such, the site has broad archaeological values relating to early European settlement and expansion in Banks Peninsula, Canterbury, and New Zealand as a whole. The overall value of the site is assessed as medium to high.

Table 3. Archaeological values of sawmill site at 11 Sawmill Road, Robinsons Bay.

NZAA Site No.	Item	Notes	Evaluation
N36/260	Condition	No mill structure present, old yards possibly standing on the site; Earthworks related to water controls (dam, water race, etc.) clearly visible; Waterwheel axle intact but lying on ground; Tram track mound and bridge foundations clearly visible; Other related nearby structures now destroyed (blacksmith’s shop, workers cottages)	Medium
	Rarity / Uniqueness	Earthworks, tram tracks, and bridges related to mill operations clearly visible; 19th C cottage on property is rare, standing example of its type.	Medium-High
	Contextual Value	Site is neighboured by cottages built in 19th C, a historic oak grove, and it lies within a larger cultural landscape associated with early sawmilling and shipbuilding. Together, these features form an historic and archaeological landscape.	High
	Information Potential	There is potential for information on 19th C sawmilling and related activities to be recovered by archaeological investigation.	Medium
	Amenity Value	Easily accessible from main highway (SH75), and located on council-owned land, has potential for public interpretation and educational purposes.	High

NZAA Site No.	Item	Notes	Evaluation
	Cultural Associations	The property has cultural associations for the extended families of a number of early European settlers.	Medium

9.1 Robinsons Bay archaeological landscape

The sawmill site with its visible earthworks, including the water race, dam, remnants of the tram track and associated bridge foundations, are relics of some of the earliest milling operations in Canterbury. The associated mill cottage (N36/155, Figure 28), built between 1855-1860 using timber cut and processed on the property, is the oldest standing structure in the area. The old schoolmaster's house sits across the road, and there is documentary evidence that the schoolhouse was located nearby next to the mill cottage. The nineteenth century cottage documented in this report stands a short distance uphill from the mill site, and an old oak grove planted in the 1880s by one of the mill owners lies beyond it. Together, these features form a distinct cultural and archaeological landscape in central Robinsons Bay, one that retains much of its nineteenth century character.

While the precise location of the old sawmill is not certain, evidence suggests that it was adjacent to the mill cottage. At its peak, upwards of 30 people were working at the mill (Jacobson 1914:291) and they (and probably their families) were living in the bay. The sprawling footprint of a Banks Peninsula sawmill such as this in the mid-nineteenth century heyday would have been considerable. Artworks that illustrate the valley in the 1870s suggest numerous structures existed; many of these buildings would have been poorly built and not lasted long after they were abandoned.

Numerous vestiges of the nineteenth century European landscape do, however, remain throughout the valley. Remnants of cocksfooters' camps (Figure 29 to Figure 32), a bridge foundation (Figure 33), and a well (Figure 34) have been documented (Maxwell and Huebert, 2020). There are also remnants of old house sites throughout the valley, many of which are now only identifiable by the introduced trees which surround the sites (Figure 35). One instance of these structures is shown in Figure 36, where the hand-cut and drilled totara frame is still visible. There are also nineteenth century camp sites beside the creeks further up the valley in less accessible areas. These small camps are notable by low stone walls or what were once chimneys, and the presence of historic bottle glass and metal artifacts. There are also a large number of introduced European trees (oak, English walnut, and fruit) which also survive throughout the valley and many were, or are likely to have been, planted before the twentieth century. These trees continue to provide annual harvests of fruit and nuts to area residents.

Overall, this area has retained much of its historic character thanks to the limited development of the valley. Robinsons Bay is an important archaeological landscape and cultural resource, and places such as this are increasingly rare on Banks Peninsula. The low population, limited turnover in land ownership, and lack of intensive farming activities make it highly likely that evidence of sawmilling, ship building, and domestic life in the nineteenth century remains. Figure 37 provides a map of the archaeological landscape of the sawmill site, outlining the minimum extent of the heritage area, and locations where subsurface structures are likely to be present.



Figure 28. Mill cottage (NZAA Site N36/155), west face (front). Scale units: 20 cm.



Figure 29. Camp 1. Remains of chimney.



Figure 59. Camp 1. Camp stove.



Figure 60. Camp 1. Bottle dump.



Figure 32. Camp 2. Firepit remains.



Figure 33. Bridge foundation crossing creek. Possibly part of bullock track. East of mill site.



Figure 34. Brick-lined well interior. Top has concrete cover. Located southeast of mill site.

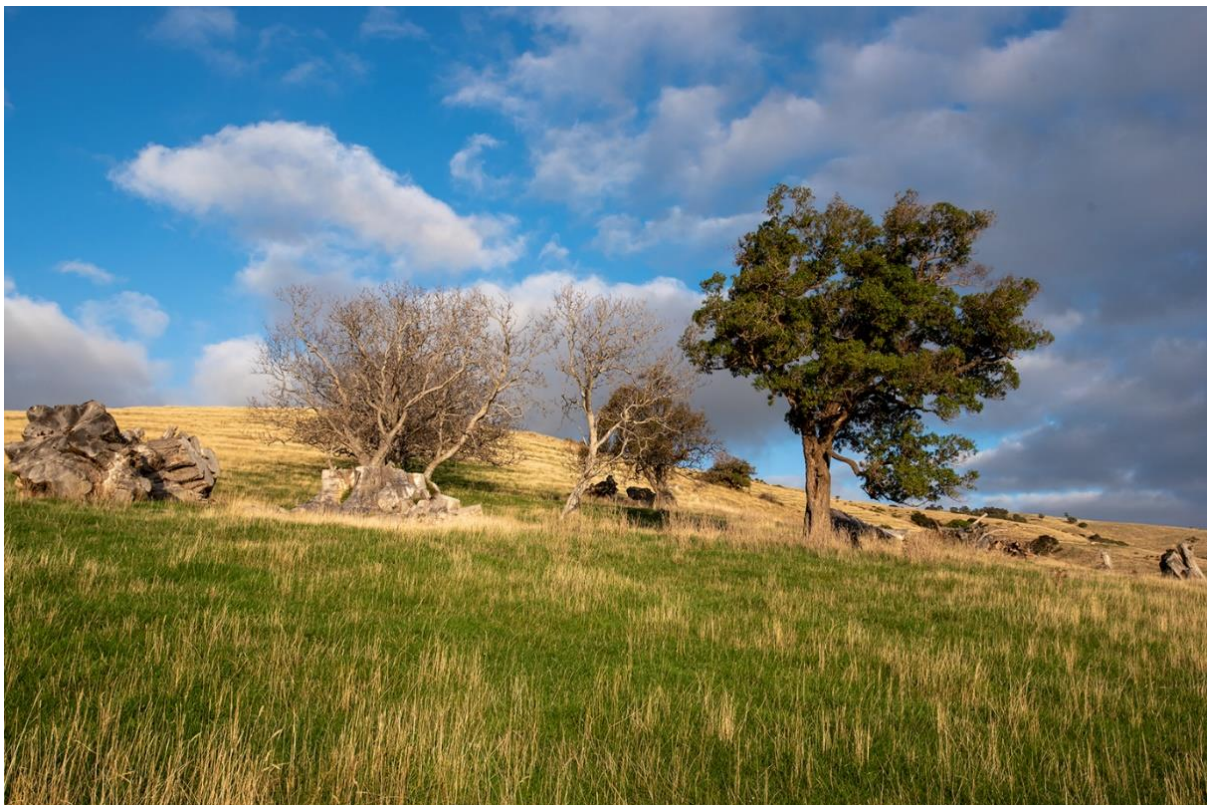


Figure 35. Typical house site 1. Level platform surrounded by introduced trees.



Figure 36. House or shed remains, site 2. Hand-sawn and drilled totara frame.



Figure 37. Map of archaeological landscape of the sawmill site. Red outline indicates the minimum extent of the heritage area; cross-hatched portion indicates where subsurface structures are likely to be present.

10 Assessment of Effects on Archaeological Features

At the present time, there is a proposal for work that would affect the old mill site. The following assessment recounts what effects development would have on the archaeological features at this location.

The mill site is an important place in the history of Banks Peninsula and Canterbury, and it is already recorded as NZAA Archaeological Site N36/260. A number of above-ground features of the mill operation are still present. These features are readily visible on the ground, as well as in aerial and satellite photographs. Earth-moving projects that would modify this landscape will compromise what remains of the engineering footprint of the water-driven mill operation including the spillway, dam, and ponds.

It is highly likely that archaeological materials would be encountered below the surface at this site. These could include remnants of the old mill, flume, tramway, blacksmith's workshop, and other outbuildings, none of which still stand, as well as materials related to the use of the mill, historic rubbish pits, and possibly from activities at the adjacent cottage and (demolished) schoolhouse which formed the social hub of the community.

The sawmill site is part of an expansive historical and archaeological landscape that included activities and structures on neighbouring lots. This area should be preserved and protected from modifications that would compromise the unique character of Robinsons Bay.

11 Recommendations

The result of this assessment is that the archaeological landscape of the nineteenth century sawmill (NZAA Site N36/260) is of medium to high archaeological value at a local and national level. This is one of few remaining and readily accessible sites on Banks Peninsula that contains visible remains of the early sawmilling industry, which was important to the foundation and development of the colony. As the site is also adjacent to several nineteenth century features which have established links to the mill, the area is a heritage landscape. In the interest of preserving the heritage character of this landscape, the following recommendations are made:

- Best practices for management of this site would involve methods that render surface features visible, such as continued grazing of areas where mill features are visible on the ground.
- In the area from the old oak grove to Sawmill Road, the planting of native trees is not recommended as they would eventually grow to obscure this landscape.
- Preservation of structures and associated above-ground features associated with the mill, and the character of the nineteenth century landscape in the central valley.
- Before doing any ground-disturbing work or modification to nineteenth century structural features on this property, an application should be made to Heritage New Zealand for an authority to damage, modify, or destroy Archaeological Site Number N36/260.
- All earthworks that are to be excavated within substrates that could include cultural materials should be carried out with a smooth-bladed bucket, and should be monitored by an archaeologist.
- Any deposits which are located should be recorded following standard archaeological techniques.
- All archaeological work should be carried out by a Section 45 approved archaeologist.
- No fossicking (rummaging) of these sites should be allowed at any time.

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