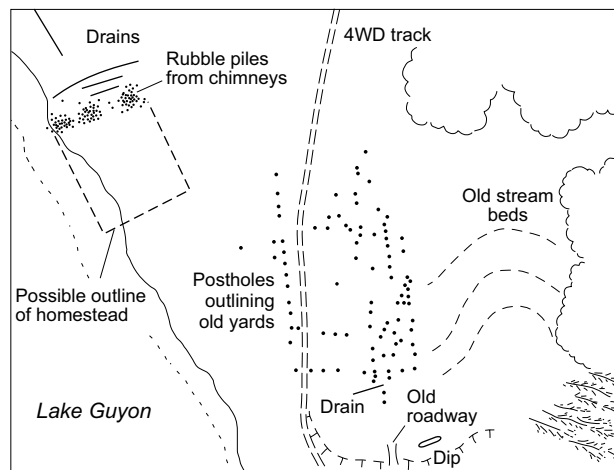


Figure 8. Aerial oblique and interpretive drawing of the ruins of the Lake Guyon Station homestead and yards on the north side of Lake Guyon (on what is now the St James Station).

The yards probably represent various phases of construction following the establishment of the station in 1864–65 by W.T.L. Travers. View to the east.

Photo courtesy of Kevin L. Jones, DOC.



By the late 1860s in Canterbury, a few grand houses and large woolsheds had been erected at high-country stations such as Mount Peel. Lord Lyttelton visited there in 1868 and noticed that J.B.A. Acland, who had more capital than most runholders and planned to make Mount Peel his family home, had been able to build and decorate to an unusual standard of completeness. He had a large woolshed that held 2000 sheep and his house was one of the few built of locally made brick (Scotter 1971).

More and more houses began to be built of timber that had been pre-cut in Christchurch (Scotter 1971). Others were made with thick cob walls. Some were spacious and comfortable, and double-storeyed, with up to 18 rooms. Examples are T.S. Mannering's house at Fernside and J.T. Brown's at Mount Thomas (Scotter 1971). Twelve years' growth of sheltering and ornamental trees had made a significant change to the landscape (Scotter 1971).

Shepherds' huts were constructed of readily available materials, such as stone. Gardner (1956) wrote about the Amuri of a century before:

'Perhaps the atmosphere of the 'fifties can now best be recaptured in the valleys of Molesworth and Tarndale, where musterers' huts standing alone in empty plains or hidden in gullies seem the forerunners of a closer settlement just beginning. No hut is within sight of another, and in spite of the longer views on the Pukahu Plain, the same must have been true of nearly all Amuri homesteads in the 'fifties.'

(Gardner 1956: 79-80)

He imagined that, at the time, nor'westers 'howled from the mountain background unimpeded by sheltering trees' (Gardner 1956: 80). He also noted that Balmoral Station in Amuri was not country on which sheep could fatten, or squatters enrich themselves, and that its 'impressive area of over 60,000 acres carried an unimpressive number of sheep and an accumulating load of mortgage. It included much light stony country, as well as the great manuka scrub, and lay open to the sou'wester. Above all, it was poorly watered' (Gardner 1956: 138). Balmoral also suffered from absentee ownership. Shelter belts, frequently of *Pinus radiata*, were planted in windy locations, such as the Rakaia Gorge (Pawson 2001).

3.2.2 Wool washing and scouring

In the early years, sheep were washed to remove dirt, plant material and the yolk from the fleece so that buyers could inspect the clean wool. The yolk consists of wax produced by the sebaceous glands and suint by the sweat glands (Peden 2002). Most farmers washed their sheep 3 or 4 days before shearing to give the yolk time to be restored to the fleece. Sometimes warm water was used in specially made washing pens, but usually sheep were cleaned in a nearby stream (Hargreaves 1966). Because of the shortage of labour, the difficulty of getting a clean muster (sheep that were missed had to be shorn later in the grease), and the lack of holding capacity to keep the sheep clean before shearing, the practice was gradually dropped (Peden 2002). By the 1860s, the grease was generally sheared in (Hargreaves 1966). Scouring was carried out by some runholders in the late 1870s to remove grease and dirt from the wool before it was shipped (Peden 2002). A few of the more isolated and sizeable high-country stations built their own wool scours. Lake Coleridge, Morven Hills, Mount Nicholas and Benmore are cases in point (Thornton 1986). Iron boilers were used to heat the water adequately to make a scouring liquid (by adding soap that was not too alkaline), and the wool was placed in vats and agitated (by men wielding sticks) in the soapy solution. The fleeces were then lifted on to a draining tray to drip, and flipped backwards into a rinsing box supplied with a stream of cold water. They were drained and dried before being pressed into bales (Thornton 1986). However, most of the wool exported from New Zealand in 1882 was still in the grease (Peden 2002).

3.2.3 Sheep yards

Gardner (1956) wrote that at St Leonards, a sod sheep yard was built. Flax stalks laced together were used for part of the yards to form a wattle fence. Keeping sheep free from dirt and dust when they were 'folded' was a major difficulty. Their trampling caused dust and mud to permeate the fleeces (Peden 2002: 120). One remedy was to spread flax on the ground in the sheep yards, and this was done on St Leonards, Balmoral and Highfield. On one occasion, the flax caught fire at St Leonards and the woolshed yards burnt down (Gardner 1956).

3.2.4 Sheep dips

Many sheep imported from eastern Australia between the 1840s and the 1860s were infected with scab, and they spread the disease as they were driven to their new pastures (Hargreaves 1966). Nelson squatters installed tanks and began dipping sheep immediately after shearing, to combat scab and its rapid spread through the Wairau Valley. Some used tobacco water and others an arsenical solution (Sherrard 1966). Later, arsenic was replaced by sulphur and lime. Tanks of water were kept boiling to supply the dip solution, which had to be kept at a temperature of 84°F (28.9°C). On isolated runs, landholders continued to use tobacco water. By growing their own crops, they did not need to pay for costly packing in of other ingredients (Sherrard 1966). Before being dipped, badly infected sheep were frequently hand-dressed with a mixture of tobacco water and spirits of tar. The worst infected sheep were killed and their carcasses burnt (Sherrard 1966).

In 1856, the flock at St Leonards in Amuri District became seriously infected (Gardner 1956). Various methods were tried to treat the scabby sheep. At first, corrosive sublimate and spirits of tar (which sometimes poisoned the sheep) were used as hand-dressings, or casks of tobacco water served as sheep dips (some tobacco plants were bought and some grown on the run). From 1857, sulphur was used in conjunction with the tar and tobacco (Gardner 1956). A dipping trough was constructed in the creek near the home station after shearing, and boilers were set up alongside. Unfortunately, the water leaked out of the trough and then the creek dried up (Gardner 1956).

Early dips, 'plunge dips', were built as a trough about 20 m long and 2 m deep (Thornton 1986). A number of men were needed to completely immerse large flocks of sheep in this most common type of dip. The rarer spray dip was a carport-like structure with a flat galvanised-iron roof that had shallow parapets to contain the solution (Thornton 1986). The liquid sprayed through the many holes that had been punched through the iron roof. On small properties, the 'pot' dip (c. 0.6 m deep and 0.6 m wide), which held fewer sheep and required less labour, was more popular (Thornton 1986). Most dips had draining pens for the sheep to pass through, and the solution was recycled (Thornton 1986).

John Rutherford, a Victorian squatter who settled in Amuri District, apparently made the first effective Australasian remedy against scab (Gardner 1956). In 1854, he boiled tobacco and sulphur together and

poured the mixture into a dip kept at 38–49°C. Sheep were immersed for 2 min, and dipped a second time 16 days later to kill the insects that had hatched out in the interval. Because diseased sheep habitually scratched and rubbed themselves against fences and trees, infected ground was left ungrazed for periods of up to 6 months. Another recipe used in Amuri in the 1850s was 12 kg of tobacco boiled in 25 L of water, and 1.6 kg of arsenic and 400 g of soda boiled separately; both liquids were then combined (Gardner 1956). A long wooden tank was built on the ground, with a draining stage at one end and a sheep yard at the other. The sheep were soaked for 5 min in the tank, and then put on the stage until the excess water had dripped back into the tank. This process was repeated twice more at intervals of 16 days to kill the parasite (Gardner 1956).

Scab did not prevent the St Leonards' flock from increasing. Whereas in 1855 there had been 2068 sheep, by 1860 there were more than 11 000 (Gardner 1956). In August the same year, the first wire fence went up. While this was a barrier against the spread of infection, sheep on the unfenced run caused further serious scab outbreaks. A large proportion of the flock was infected and the whole flock had to be dipped (Gardner 1956).

3.2.5 Cattle

Cattle were frequently pastured on high-country runs as well as sheep. For example, in 1872, Lauder Station on the Manuherikia River in Otago carried c. 600 cattle and 12 000 sheep (Pinney 1981). Naturally, fences and the walls of stock yards needed to be higher and stronger than those for sheep to prevent cattle from roaming.

3.2.6 Transport

Beaches and riverbeds were often used as highways (Mahoney 1991). Settler tracks were cut or burnt through bush and scrub in the high country. Pack tracks were designed specifically for teams of horses, and were gently graded and generously wide (Mahoney 1991). They allowed for movement of horses, trains of packhorses, mobs of stock, and sledges carrying heavy machinery or goods. Most pack tracks were constructed in isolated and difficult terrain, where roads were expensive to build (Mahoney 1991). They were too narrow for wheeled vehicles.

Mahoney (1991) listed other features characteristic of pack tracks as:

- Stone benches in small side creeks to provide an even-bottomed ford
- Meandering trajectories in and out of gullies
- Zig-zags on steep hillsides
- The avoidance of stressful and dangerous crossings by travelling along one side of a river
- Huts on longer tracks, some with yards or grassed clearings for horses
- Side cuts in steep country and fill across swampy ground

Pack tracks criss-crossed the South Island, forming an extensive transport and communication network (Mahoney 1991). Construction began in the 1840s and continued through to the 1920s (Mahoney 1991). They were built for many purposes—prospecting, mining, droving, farming, tourism and general communications—and were financed by central, provincial and local government, and private industries (Mahoney 1991). By the late 20th century, physical remains were not always evident. Some tracks had been upgraded to roads and destroyed in the process, some had become overgrown and neglected, and some had been transformed into scenic walking tracks (Mahoney 1991).

Bullocks were brought in to pull sledges or drays and they frequently carted heavy loads such as wool, timber or firewood (Beattie 1947). Although slower than horses, bullocks were more patient, steady and sure, and because they gained better traction with their cloven hooves, they could attempt the high country's steeper gradients (Pinney 1981). The most preferred bullock wagons were made of blue gum and were imported from Sydney at a cost of c.£28 (Hargreaves 1966). Bogs were bridged with scrub, and creek banks were sloped to allow bullock sledges or drays to cross (Beattie 1947). Stone cairns and snow poles acted as route markers. Over time, tracks became distinctly marked. In some areas, risky mountain traverses and dangerous river crossings were hazards that settlers were forced to negotiate (Beattie 1947).

A team of bullocks hauling a dray-load of wool averaged c. 10–12 miles (c. 16–19 km) a day (Jacomb 2000). For example, at St Leonards Station in Amuri, the first wool clip was shipped from Gore Bay in April 1855, but the following year the clip, amounting to 40 bales, was carried by dray to Kaiapoi in four trips over Weka Pass (Gardner 1956). The shortest trip took 10 days both ways. Before fences were built, much time was wasted looking for lost mules, bullocks and horses (St Leonards seems to have been short of riding horses, and station workers were forced to walk prodigious distances).

The appearance of horses on a run was a sign of progress, and following this bridle tracks formed (Jacomb 2000). On steep and tricky slopes, steps or crude ladders were made for horses. Saplings were used, and the cross bars were lashed with supplejack. Horse-drawn drays and wool wagons were common by the late 1870s, as were long-bodied four-wheeled bullock wagons, but spring carts were rare (Jacomb 2000).

In the early 1860s, the Marlborough Provincial Council set aside land for accommodation houses and reserves for stock travelling from the high country in Kaikoura, at the mouths of the Clarence and Hapuku Rivers, and at Boat Harbour (Sherrard 1966). At the Clarence ferry, a wire rope securely tied on both banks of the river was attached to the boat. When the river ran high, travellers paid 2s 6d to be ferried across the river with their luggage while their unsaddled horses swam across the raging torrent (Sherrard 1966).

3.2.7 Accommodation houses

Since many high-country sheep runs were several days' journey from the closest port or landing place, early travellers were accommodated at the small homesteads of the early runholders (Jacomb 2000). Later, boat ferries and accommodation houses sprang up at river crossings. Canterbury archeologist Chris Jacomb wrote that:

'The siting of most accommodation houses was determined by the distance a bullock wagon could travel in one day, along with the locations of suitable ferry crossings along the route to the nearest port. Hence the settlement pattern of the Canterbury [Province] was, to a large degree, set by the distance a team of bullocks could haul a wagon loaded with wool.' (Jacomb 2000: 56-57)

Early pastoral farming communities also used accommodation houses for many other purposes such as post offices and places to hold meetings, church services, weddings, schools and dances (Jacomb 2000). The houses served as a social nexus.

In the early 1860s, the Marlborough Provincial Council set aside land for accommodation houses and reserves for stock travelling from the high country in Kaikoura, at the mouths of the Clarence and Hapuku Rivers and at Boat Harbour (Sherrard 1966). The Kekerengu accommodation house was station property, leased to the ferry keeper, who catered for station hands as well as for the travelling public. The Nelson Provincial Council established accommodation houses on the Rainbow River route at Tophouse and at Tarndale (Fig. 9).

High-country runholders with stations en route to the goldfields could not accommodate all the miners who rushed to the diggings, and demand

Figure 9. Aerial oblique of the second Rainbow accommodation house and adjacent stock or horse yards (in the foreground, outlined by postholes on the terrace edge above the scrub-covered stream bed). View to the southwest.

Photo courtesy of Kevin L. Jones, DOC.



escalated for accommodation houses at strategic points, especially at river crossings (Gardner 1956). When the three South Island gold rushes began (Otago 1861, Marlborough 1864 and Westland 1864-65), the traffic on Amuri roads increased swiftly and even became rather threatening to local inhabitants (Gardner 1956). At the same time, there was a conflict over the

best route to be developed between Canterbury and the West Coast, as a contemporary cartoon demonstrates (Fig. 10). In 1860, the route from Nelson to Canterbury through the Wairau Gorge and across Hanmer Plain was greatly improved, and large reserves were set aside to encourage qualified people to set up accommodation houses (Gardner 1956). In a return of accommodation house reserves for Amuri District dated 28 June 1864, five were listed: Tophouse—c. 200 acres (81 ha); Tarndale—6100 acres (2470.5 ha); Hanmer Plains—2540 acres (1028.7 ha); junction of Acheron and Clarence Rivers—2650 acres (1073.25 ha); and Highfield, Amuri—150 acres (60.75 ha) (Gardner 1956). Extra land was needed to grow food for travellers and their horses or bullocks, and also to provide fodder for stock. A house at Hurunui with a ferry boat was established late in 1864 (Gardner 1956). It contained 13 rooms, with stabling to hold six horses (the ferry consisted of two ferry boats with wire warp stretching across the river). The house completed the chain linking Hurunui to Tophouse, making it possible for travellers to pass through Amuri District knowing that accommodation would probably be available at the end of each day (Gardner 1956). Figure 11A depicts the Amuri runs in 1858, and Fig. 11B shows the runs, homesteads and accommodation houses in 1889.



Figure 10. 1865 cartoon depicting the conflicting claims of Browning Pass and Arthur's Pass to become the stock route from Canterbury to the West Coast. A quick, safe route was needed during the gold rush. *Courtesy of the Alexander Turnbull Library, Wellington, New Zealand (reference number 303 MNZ ¼).*

3.2.8 Droving

In the mid-1850s, Amuri runholders began to send sheep into Canterbury (Gardner 1956). The 1860s gold rushes expanded these markets and made others. The disposal of surplus sheep for profit was an important way for landholders to supplement their incomes and to cull excess sheep (Gardner 1956). The river crossing at Hurunui River was the gateway to the Canterbury markets, but the enactment of stricter scab legislation in Canterbury in 1858 (Gardner 1956) led to the establishment of a 3000-acre (1215-ha) stock reserve between the Hurunui and Waitohi Rivers, east of the contemporary railway line (Gardner 1956). This meant that it was seldom profitable to drive Amuri sheep direct to the Christchurch market because sheep from Nelson Province, of which Amuri was a part, had to be dipped and granted a clean certificate by a Canterbury inspector. Dipping cost 1 shilling a head for the first 1000