



Figure 14. Dismantled rabbit-proof fence, showing detail of the strainer post and recovered rolls of wire at Saxton Pass, Molesworth. *Photo courtesy of Kevin L. Jones, DOC.*

government reserves and vast stretches of unoccupied high-country Crown lands in Amuri District attracted them in droves (Gardner 1956). In 1892, runholders south of the Hurunui built another fence along that river (Scotter 1965). The Rutherfords and other runholders ring-fenced their land (Scotter 1965). However, rabbit-proof fences were expensive and difficult to repair, and the rabbits had usually already infested an area that runholders or rabbit boards had decided was to be cordoned off (Nightingale 1992).

In Canterbury, methods of containment and destruction were thought to be keeping the brown rabbits under control. Silver grey rabbits from the north and wild rabbits from Otago were more invasive (Scotter 1965). A rabbit-proof fence, which stretched for 40 miles (c. 64 km) down the Tasman Valley from the Mueller Glacier and another 40 miles across to Hakataramea, was built by 1888 (Scotter 1965). Although rabbit-proof fences previously erected in Otago had not been successful (Scotter 1965), this one was stronger, had traps attached to it and was inspected each day. It worked, but rabbits on the other side multiplied. In 1892, over 40 000 rabbits were killed between the Tekapo and Pukaki Rivers (Scotter 1965).

4.2.4 Transportation, accommodation and communication

In the early 1880s, the Waiau River, the most dangerous river in northern Canterbury, was still being forded on the main road near the coast (Gardner 1956). Many travellers had drowned there (Gardner 1956). The river was also hazardous to stock being driven to or from the high country. For example, in May 1878, a flock of 3600 sheep had taken 4 days to be swum across. Some drowned and some had to be taken across in a cart. Built between 1882 and 1884, the Waiau Bridge was made up of 45 spans and was 1776 feet (c. 541 m) long (Gardner 1956). It was still standing in the 1950s. The Arthur's Ferry Bridge, in the high country, was completed in 1887. Designed by John Blackett, the structure rested on two inverted triangular frames, was 255 feet (c. 78 m) long, 101 feet (c. 31 m) above the river, and was also still in use in the 1950s (Gardner 1956). While building the Arthur's Ferry Bridge, Andersons, engineers of Christchurch, simultaneously constructed the stock bridge over the Hope River at Glynn Wye for Duncan Rutherford (Gardner 1956). Completed in 1885, the bridge, which was suspended on steel cables, had one span of 247 feet (c. 75 m). This was also still standing in the 1950s (Gardner 1956). North of Kaikoura, the coastal bridge across the

Clarence River was not completed until 1887. The iron and timber was landed by punt at Waipapa and then hauled 4 miles (c.6.4 km) to the river by bullock teams. Designed to carry both road and rail traffic, the bridge had four spans of 120 feet (c.36.6 m) and another of 80 feet (c.24.4 m) and rested on four pairs of huge iron cylinders sunk into the bed of the river (Gardner 1956).

Coach services began in Kaikoura County in the 1880s, as the roads went through. Sometimes, bullock tracks were followed on unfinished sections and horses were provided at the end of roads for continuing the journey along bridle tracks (Sherrard 1966). The telegraph was extended to Waiiau in 1872 (Gardner 1956).

Canterbury experienced a surge in railway construction during the 1870s and 1880s (Fig. 15). A branch railway line, 10 miles (c. 16 km) long, was built between the Hurunui River and the south bank of the Waiiau River (Gardner 1956). The Hurunui railway bridge was built between 1883 and 1886, and the line to Culverden opened officially in 1886 (Gardner 1956) (Fig. 15).

4.2.5 Tourism

Tourism in the South Island high country was at first hindered by the inaccessibility of the terrain (Grey 1994). Interest centred on Mount Cook, the eastern piedmont lakes and the southwestern sounds (Grey 1994). Tourist ventures in the 1880s were initially dependent on an erratic pre-existing network of bullock tracks, and their development helped pastoralism to penetrate further into mountainous territory (Ian Hill, DOC, pers. comm. 2003).

All the main rivers in Canterbury had ferries by the mid-1860s and, wherever possible, accommodation houses had been located at these river crossings. Today, few exist, although some of the sites have had more modern hotels built on them. In 2000, archaeologist Chris Jacomb conducted a site investigation of the Pukaki Inn, which was the only known remaining accommodation house site in the Mackenzie Basin (Jacomb 2000).

Europeans had begun to settle in the Mackenzie Basin in 1855, and in 1858, on the recommendation of the Canterbury Provincial Council, construction of a dray track began there (Jacomb 2000). In 1862, the Provincial Secretary called for tenders for the establishment of ferries over the Tekapo, Pukaki and Ohau Rivers where the rivers were crossed by dray tracks in the Mount Cook area (Andersen 1916). Terms included in the lease of the ferry reserves on either side of the stream were that the successful tenderer was to erect a house, provide sufficient oats at eightpence per imperial quart, a safe ferry boat and shelter for stock. Timber could be cut for construction and fuel, and reserves could be set aside for this reason (Andersen 1916).

Jacomb found 'that the tender issued in 1862 for a ferry at Pukaki was not filled and that the first official ferry was established in 1876' (Jacomb 2000: 49). Records show that in February 1876 two large boats left Timaru for the Pukaki ferry, and in April George Tait was appointed

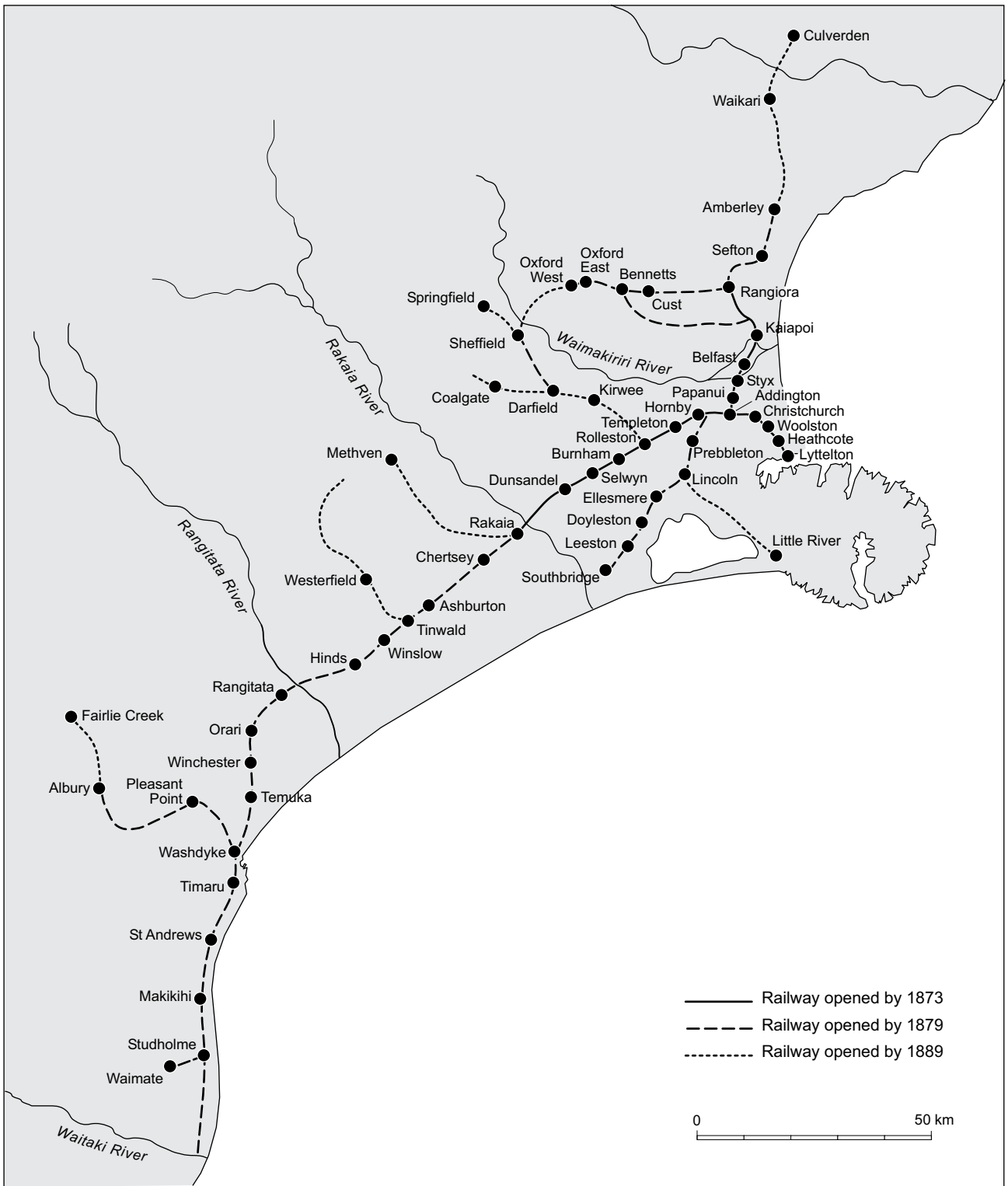


Figure 15. Railways that opened in Canterbury during the 1870s and 1880s, after Cant & Kirkpatrick (2001).

ferryman (Andersen 1916). In the early 1890s, the ferry and hotel were moved closer to the outlet of Lake Pukaki, c. 3 miles (c. 4.8 km) upstream, and the ferry was replaced by a bridge in 1895 (Jacomb 2000). The original accommodation house site was partially destroyed by controlled spilling by hydroelectric plants and bulldozing in the late 20th century (Jacomb 2000). The main features of the Pukaki Inn site are a concrete chimney, which belonged to the accommodation house, the remains of a forge, the remains possibly of a third building, and a boulder-lined dray track (Jacomb 2000).

These provincial council initiatives boosted pastoralism and its expansion in the district. For example, Birch Hill high-country station near Mount Cook was first occupied by the Sicilian Nicolo (Big Mick) Radove in 1868 (Jacomb 2002). Jacomb also conducted a survey of the physical remains at Birch Hill, and recorded the sites of three homesteads, one woolshed, two ditch-and-bank enclosures, two graves, a sheep yard, a bivvy and a possible forge (Jacomb 2002). A rabbit fence still separated Birch Hill from the next station down the Tasman River, Glentanner. This was runholding on the margins of possibility. Jacomb wrote: 'The story of Birch Hill is a story of hardship and struggle, life and death in a difficult, remote environment' (Jacomb 2002:33). The run changed hands several times and was eventually reclaimed by the wild when it became part of the Mount Cook National Park (Jacomb 2002).

An early clash occurred between environmentalists and pastoralists when, in 1884, a petition was sent to Government complaining of the destruction of native vegetation there by burning off and grazing (Wigley 1979). A ranger was appointed for the Mount Cook area in response. His name was M.C. (Frank) Huddlestone of Timaru, a surveyor and watercolourist (Wigley 1979). He soon became interested in establishing some tourist accommodation, and purchased c. 30 acres (c. 12 ha) of land near the base of Mueller Glacier (Wigley 1979). The first Hermitage hotel, believed to have been a small cob building, was built. In 1885, Huddlestone sold his land to the Mount Cook-Hermitage Company, which was set up to develop a Swiss-style alpine village, and he became the first manager (Wigley 1979).

This company ran its own coach service between Fairlie and The Hermitage. Vehicles included a brake that could carry 16 passengers, and two 12-passenger coaches (Wigley 1979). Another firm, McLeod and Rossiter, set up in competition in 1888, with four covered-in coaches, four wagonettes, and several buggies and gigs (Wigley 1979). It took a visitor 3 days to travel from Timaru to Mount Cook. The first day was spent travelling by train from Timaru to Fairlie, the second by coach from Fairlie to Pukaki, and the third by coach to The Hermitage (Wigley 1979).

On the Mackenzie Plains, the coaches followed the zigzag bullock tracks. These were not metalled, and during the spring thaw they became extremely muddy (Wigley 1979). In the summer, the same tracks were very dusty. As the years went by, they sank, until they were 3 feet (c. 0.9 m) or more below the surrounding ground and only a little more

than the width of the vehicles (Wigley 1979). Between Lake Pukaki and The Hermitage, after rain or snow, the track was frequently gouged out by water cascading off the mountain slopes, and sometimes travellers were forced to ford 20 or 30 streams (Wigley 1979).

The Acheron accommodation house (Fig. 16) was a key stopping point on the routes from Nelson and Marlborough to Canterbury via Jollies Pass. The first Tarndale accommodation house (Fig. 17) was an important stopping point from the Rainbow valley (Nelson) to the Acheron River (Nelson) and the routes to Marlborough and Canterbury. The Jollies Pass accommodation house was the hub of the Hanmer district, Amuri, for the 65 years of its existence (Jacomb 2000). Nearby, Hanmer developed as a tourist and health resort because of its hot pools (Jacomb 2000). The

Figure 16. Aerial oblique of the Acheron accommodation house in its setting by the Acheron River. *Photo courtesy of Kevin L. Jones, DOC.*



Figure 17. Aerial oblique of the Tarndale area, showing the site of the first Tarndale accommodation house. This was located on the terrace edge at centre. The distant valley (above centre) is Travellers Valley leading to the Saxton and Ward Passes and the Awatere, and also to the upper reaches of the Acheron River. View to the east. *Photo courtesy of Kevin L. Jones, DOC.*



Government reserved 2560 acres (c. 1037 ha) around the springs by 1881, and began to build baths and enclosures. Extensive reserves were marked out at Mount Cook in 1885 and at Arthur's Pass in 1901, and these were to form the kernel of future national parks (Pawson 2001).

In the fiords and glacial lakes of the southwest of the South Island, early runholders provided accommodation for infrequent visitors to Lakes Te Anau and Manapouri (Grey 1994). After the Union Steam Ship Company started summer cruises in 1876, and the railway arrived at Lumsden in 1876 and Mossburn in 1887, more tourists arrived (Grey 1994). The Te Anau/Milford Sound pass was discovered in 1888, and by the 1890s, the Milford Track had become a major sightseeing attraction (Grey 1994). In 1904, 2 326 200 acres (942 111 ha) of the Fiordland district were reserved as a national park, and red deer were released at Manapouri, wapati and moose at Dusky Sound, and trout and salmon at Te Anau in a bid to make the region more enticing to visitors (Grey 1994). However, the area still did not attract as many tourists as Lake Wakatipu or Mount Cook because of its remoteness (Grey 1994). Road traffic would not reach Milford Sound until 1953, when the Homer Tunnel was completed (Grey 1994).

4.2.6 Mining

Mining was to be important to the New Zealand economy until 1921 (Hearn 2002). Minerals extracted from the high country included metals (mostly gold), non-metals (limestone, clays and aggregates) and fuel (especially coal). Between 1861 and 1865, the industry generated 65.2% of New Zealand's export earnings (Hearn 2002). (This declined to 15.3% between 1901 and 1905, and then to 3.2% from 1915 to 1920.) Gold accounted for more than 90% and coal 5.2% by value of mineral exports between 1853 and 1921 (Hearn 2002). Unlike the resources of the pastoral industry, which had the potential to be made sustainable, those of the mining industry were finite.

Jill Hamel (2001) provided detailed descriptions of the different sites and types of gold mining. She noted that:

'The great alluvial fields of Otago were at Waipori (ground sluicing and dredging), Gabriels Gully/Tuapeka (hydraulic elevating and tunnelling), Roxburgh/Fruitlands (hydraulic elevating and dredging), the Clutha terraces from Alexandra to Luggate (ground sluicing and dredging), Bannockburn (hydraulic sluicing and tunnelling), the lower Nevis (hydraulic elevating and dredging), Naseby (hydraulic sluicing), upper Manuherikia (hydraulic elevating), Arrow River (ground sluicing), and the Shotover River (hydraulic sluicing and dredging). There were also some interesting fields at high elevations where old sediments had been trapped in small faulted pockets, such as at the Griffel, Pisa Range, and Potters No.2, Old Man Range, or linear fields where the head waters of streams run along the tops of the ranges, such as in the Roaring Meg and Upper Fraser River. Many of these fields were worked over a long period from the mid 1860s to about 1910.'

(Hamel 2001: 132)

Another Otago archaeologist, Peter Bristow (1998), gave a detailed description of the technological changes in alluvial mining at Earnsclough on the Clutha River from 1863 to 1963. DOC's (1999) visitor information brochure for the site stated that:

'The Earnsclough tailings area has great historic significance, representing the evolution of dredging from the early 1860s through to the 1960s. The extent and preservation of the tailings display the sequence of technological advancement through 100 years of gold dredging in this area.'
(DOC 1999)

Ground sluicing left behind the classical herringbone pattern of early mining.

Quartz (or hard rock) mining began in Otago in about 1863 (Hamel 2001) and continues to the present. Some sites were in remote high-country locations, such as the Skippers and Dart Valleys. Notable quartz mines were found at Glenorchy, Bullendale, Macetown, Carrick, Bendigo, Oturehura and Macraes Flat. Hamel informed us that:

'Archaeologically an old battery site will consist of at least two platforms, generally cut into rock, often with concrete block foundations set with bolts for the heavy machinery. On a lower level there may be the foundations or remains of cyanide tanks. Along with a race and a reservoir, set slightly above the battery, these are the usual archaeological indications of 19th century quartz mining activity. Some early mines may have no associated battery because the ore was taken by dray to distant battery, or even shipped to Australia for processing.'
(Hamel 2001: 165)

Crushing had begun at Bullendale by 1864, and a hydroelectric plant was constructed to drive the machinery in 1886 (Hamel 2001). The main period of active mining at Macetown was from 1876 to 1886 (Hamel 2001). The Invincible Lode high on a hillside in the Rees Valley was worked successfully between 1882 and 1889 (Hamel 2001). At Bendigo Creek, after the initial alluvial mining from 1862 to 1866, quartz mining began in 1868 and continued until the early 20th century (Hamel 2001). Quartz mining had begun near Macraes Flat by May 1866 (Hamel 2001). Over time, the remains of this 'Duke of Edinburgh' mine have been eroded by ploughing, roading and the dumping of rubbish. The battery and mine buildings have disappeared. The reservoir and a crumbling stone house with sod-walled enclosures were still there in 2001. The Carrick Field, established in 1870, ran up the mountainside from c. 1800 to c. 3180 feet (c. 550-970 m) above sea level (Hamel 2001). Quartzville, at the base of the main spur, was a packers' town, where loads were transferred from drays to packhorses for the steep haul up to the mines. However, little remained; house ruins, battery platforms and pieces of machinery could be seen higher on the spur or along the gullies. At the top of the range there was a huge iron waterwheel, and the long Carrick water race constructed to provide water to the waterwheel and to Bannockburn ran around the hillside (Hamel 2001).

4.2.7 Scheelite mining

Most of the lodes in the Glenorchy goldfield carried more scheelite than gold, and the largest and most productive were those on the Glenorchy-Kelly Lodes on Mount Judah (Hamel 2001). These were worked between the 1880s and 1977 (Hamel 2001).

4.2.8 Coal mining and sawmilling

Open-cast coal mining was carried out on a very small scale at Mount Somers in Canterbury, Mataura and Nightcaps in Southland, and in Central Otago, with little pits being used and abandoned as demand fluctuated (Hearn 2002).

At Gabriels Gully, a sawmill operated for a time in the beech forest on the spur for construction on the goldfields, but when the trees had gone, the diggers themselves were forced to search for swiftly vanishing scrub (Salmon 1963). In West Otago, the first small communities were reliant on sawmilling and sheep (Olssen 1984). The great wave of miners into the barren landscape of Central Otago, on the other side of the Old Man Range/Kopuwai, created a strong demand for timber (Olssen 1984). Soon, steam mills were constructed on the Pomahaka River and by 1870 the three largest mills were manufacturing c.100 000 feet (c.30 500 m) per week (Olssen 1984). Around 100 bullock teams took the timber to the different markets (Olssen 1984). Many small businesses, such as blacksmiths, pubs and general stores, sprang up. At Tapanui there were two small coal mines (Olssen 1984).

4.3 LAND TENURE

4.3.1 Mining and pastoralism

Provincial governments wished to retain possession of potentially gold-bearing land, much of which was in the high country. Some resolved this issue by writing into their land regulations special clauses for leasing lands in the goldfields (McDonald 1945). These leases were to be cancelled when a goldfield was proclaimed. For example, James Chapman Smith and John Martin had a licence for the 12 800-acre (5184-ha) Run 53 in Otago when, in May 1861, Gabriel Read discovered gold there (McIntyre 2002). This run was officially declared a goldfield, the partners' depasturing licence was cancelled, and they were given £1216 compensation by the Government. Both men went on to make a fortune, not by mining but by slaughtering their sheep for the instant local market and transporting the miners' gold to the banks in Dunedin (McIntyre 2002).

In Otago, the mining industry generated four key types of conflict:

- Prospectors and miners gaining easy access to land versus landholders protecting their property rights and interests
- Miners using natural watercourses for discharging tailings, polluted water and other debris versus settlers demanding that their riparian rights be protected

- The exploitation of mineral wealth versus the preservation of the pastoral or agricultural value of the land
- The priorities of the mining industry versus the pastoral or agricultural industries in the allocation of water resources

Policies and legislation were developed on an *ad hoc* basis in an attempt to balance the interests of the competing industries, but when the riparian rights and lands of settlers were at stake, the mining industry invariably won, regardless of the cost to the environment, other resources or local communities (Hearn 1981). Governments were committed to the promotion of mining because of the key role that the industry played in the colonial economy (Hearn 1981). T.J. Hearn has written exhaustively about the changes in legislation that occurred as a consequence of the controversy between the industries, and noted that at the heart of the conflict between miners and settlers was the application of two different rights structures to the same resources of land and water (Hearn 1981, 2002). Between 1860 and 1907, eight tenures were introduced: agricultural leases (1860), deferred payments licences (1872), perpetual leases (1882), small grazing runs (1885), leases-in-perpetuity (1892), occupation with right of purchase (1892), occupational leases (1894) and renewable leases (1907). All of these except deferred payments were types of leasehold. Hearn commented that:

‘To meet miner demands, the right of entry to all leasehold lands was reserved, all leases could be terminated if the land were required for mining, and, in the case of four of the tenures, owners or occupiers were not to have any right of action for any damage resulting from the diversion or fouling of water courses.’ (Hearn 2002: 93)

In the 19th century, mining and land laws:

‘...imposed few restrictions on the use of resources, while discounting social and environmental costs in the interests of sustained exploitation. Gold miners interpreted mining law as offering unlimited licence for their enterprise and sought appropriate measures whenever such licence appeared to be under threat. Parliament largely acceded to their demands.’ (Hearn 2002: 98)

4.3.2 Maori loss and protest

Maori, increasingly dismayed by the lack of adequate reserves and the inexorable loss of their mahika kai, demanded use rights to land and mineral wealth in the high country and elsewhere (Evison 1993). For example, in January 1874, Horei Kerei Taiaroa wrote to the native minister, Donald McLean:

‘You must also observe that precious stones have been obtained by the Pakeha from here such as gold, Greenstone & c and also that the people, their sheep, cattle and their animals subsist on the Island. My opinion is that it is not right that the minerals should be taken from the Ground because the land has not been paid for by any other people.’ (Taiaroa 1874)

European officials mostly chose to ignore their complaints (Evison 1993).

In June 1878, Wereta Tainui and others of Arahura wrote to the Premier and Minister for Native Affairs pointing out that their kaika nohoanga were scattered all over the South Island high country, foothills and lowlands. They said:

‘We are known to be the permanent occupiers of this side of this island of Waipounamu (Middle Island) of the portion called Te Poutini...

‘Our Eel pa’s [*sic*] are now in disuse when we go to prepare that branch of our food we are driven away from there ... we still retain a right to our claims our Burial places and our cultivations ... one of the burial places still remains in the hands of the Natives but the others are outside the portions retained by the Maories [*sic*], and the cultivations are scattered all over the island it was impossible to have them all together they are scattered about at different places within the exterior boundaries of the land, that is why we say that the Government should carefully investigate this matter of these cultivations of ours, our parents and ancestors, if they had been cultivations for an influential people like the Pakeha a law would have been enacted to protect them ... they have made a law that any person found trespassing on their property will be prosecuted by the owner the maories say those are our cultivations and they take no notice.’

(Tainui 1878)

Because of these and other Maori protests concerning the loss of land, mahika kai and kaika nohoanga (such as that by the prophet Te Maiharoa on the upper Waitaki River), in 1878 Hori Kerei Taiaroa, son of the Kai Tahu chief Te Matenga Taiaroa and Member of the House of Representatives for Southern Maori, came to an agreement with John Sheehan, Minister for Native Affairs, that a Commission of Inquiry would be held into past purchases of Kai Tahu land (Evison 1993). On 15 February 1879, a Royal Commission, comprising Judge Thomas Henry Smith of the Native Land Court and Francis Edward Nairn, a Nelson settler, was appointed to investigate whether or not any promises remained to be fulfilled and whether or not reserves had been made in terms of the original agreements. Their brief was limited to the land sales that were of interest to Taiaroa: Otakou, Kemp’s Purchase, Murihiku and Akaroa (Evison 1993). Taiaroa organised marae sessions with kaumatua to copy down details of the myriad mahika kai and kaika nohoanga that Kai Tahu had traditionally made use of in the Otakou and Kemp’s Blocks (Evison 1993). Note that it was for this inquiry that H.K. Taiaroa produced his record of mahika kai that was to become important in the Waitangi Tribunal claim, and which DOC now relies on for tenure review.

By late 1879, the Smith-Nairn Commission had examined 24 witnesses and almost finished hearing evidence on Kemp’s Purchase (Evison 1993). Grey’s ministry fell in October. John Hall became Premier, William Rolleston the Minister of Lands, and John Bryce Native Minister (Evison 1993). In April 1880, after the Commission had heard 65 further submissions, Bryce

refused the Commission any more expenses. It went into recess with the Murihiku hearings unfinished and never resumed (Evison 1993).

On 31 January 1881, the Smith-Nairn Commission issued its report (Smith & Nairn 1881). The Murihiku inquiry was not complete, but with regard to the Otago, Kemp's and Akaroa Purchases, the Commission had arrived at definite conclusions (Evison 1993: 456):

- Kai Tahu at the time of these three purchases had been entitled to the New Zealand Company's 'Tenths', on the grounds that the Otago and Kemp's Deeds had been made out to the Company
- Kai Tahu were therefore entitled to one-eleventh of the total proceeds that the Crown had received from the sale of land within the Otago and Kemp's Blocks, with accumulated interest, less the value of reserves and other government benefits that they had already received

Nothing happened. Attention was focused on the Parihaka crisis in Taranaki (Evison 1993). Alexander Mackay, Native Land Purchase Commissioner, supported the Kai Tahu case in his official report of 1881, emphasising the disadvantages they had been subjected to with the loss of their mahika kai and kai moana, like those suffered by Te Maiharoa and his people:

'...on going fishing or bird-catching, they are frequently ordered off by the settlers if they happen to have no reserve in the locality. This state of affairs, combined with the injury done to their fisheries by the drainage of the country, inflicts a heavy loss on them annually and plunges them further into debt, or keeps them in a state of privation. All this is very harassing to a people who not long since owned the whole of the territory now occupied by another race, and it is not surprising that discontent prevails, or that progress or prosperity is impossible. The small quantity of land held per individual—viz., fourteen acres, and in some cases the maximum quantity is less—altogether precludes the possibility of the Natives raising themselves above the position of peasants. A European farmer finds even 100 acres too small to be payable ...' (Mackay 1881: 16)

4.3.3 Government centralisation

The role of the provincial councils had become more important to the colony than that of the central General Assembly (Condliffe 1959). Some southern councils, like that of Otago during the 1860s gold rush, had had more money than Central Government, which at the time was funding the New Zealand Wars. Land legislation in the various provinces had been inconsistent and confusing, and the cost of running 11 legislatures in a colony with less than 300 000 people was exorbitant (Condliffe 1959). Five South Island provinces—Marlborough, Nelson (which included Amuri from 1853 to 1876), Canterbury, Otago and Southland—had extensive areas of high country (McKinnon 1997). The rapid development of a transport grid during Vogel-led governments in the 1870s helped to facilitate travel from these remote districts to the capital city. Centralisation of government at Wellington was inevitable. The provincial councils were abolished in 1876. Their control

of land legislation and administration could not have lasted indefinitely (Condliffe 1959).

4.3.4 Freehold and leasehold

Vogel was voted out of office in 1877 and the Liberal leader Premier George Grey brought in the Land Act 1877 to consolidate and systematise the diverse array of provincial legislation (Condliffe 1959). Crown pastoral leaseholders in the high country were affected by these laws (Condliffe 1959; McLintock 1966):

- The Government repealed 56 statutes and set up a centralised policy.
- Auction sales for pastoral leases were introduced and a system of deferred payments in the sale of waste lands was adopted.
- Crown land could be sold for cash or on deferred payments with conditions requiring improvements and personal residence.
- Special conditions were applied to pastoral runs in Canterbury and Otago, with leases being offered at auction and occupiers being given the right to freehold land around their homesteads.
- The first land tax in the colony was initiated. Although low, at a flat rate of a halfpenny in the pound on all land in excess of £500 in value, it was repealed in 1879 when Grey lost office.
- The provinces, provincial councils, commissioners and waste-lands boards were replaced by land districts, land boards and commissioners of Crown lands responsible to the minister.

Three key methods were frequently employed in the high country and on the downlands to exclude competitors during the land boom of the 1870s. According to Hargreaves (1966), these were:

- ‘Spotting’, where runholders purchased key small sections, particularly those near waterways, often by pre-emptive rights, leaving other sections unusable.
- ‘Dummying’, when ownership of blocks of land was vested in other family members or employees while really staying in the possession of the runholder.
- ‘Gridironing’, which occurred when runholders bought several of the smallest possible (20-acre; 8.1-ha) sections fronting a road, leaving 19-acre (c. 7.7 ha) sections in between. These could be sold only at auction and were too small to be of much value to anyone else.

Despite these runholder techniques, as railways expanded and markets became more accessible and land more valuable for resale, the percentage of ‘cockatoos’ or small farmers grew (Hargreaves 1966).

In Canterbury Province by the end of 1878, all of the plains were freehold (except for poor pieces of land). Crown pastoral leasehold was now mostly confined to high country over 300 m and was divided among 182 properties averaging c. 22 000 acres (8910 ha). The biggest properties were owned by large companies. These were mostly paper holdings representing mortgages. The New Zealand Loan and Mercantile Agency

held 646 537 acres (c. 261 847 ha) and the Trust and Agency Company of Australia held 427 427 acres (c. 173 108 ha). A few individuals or groups owned areas of land in excess of 50 000 or 100 000 acres (20 250 or 40 500 ha).

Although Otago had larger pastoral runs and flocks, Canterbury was regarded as the land of squatters and extensive runs (Scotter 1965). This was probably because the pastoral interest in Canterbury had remained powerful, while in Otago from the time of early European settlement other industrial interests had challenged those of the runholders, such as gold mining and the small-scale farming introduced by the hundreds system.

During the late 1860s and the 1870s, the political power of the pastoralists had been challenged by groups who aimed to bring about radical land law reform: ex-goldminers, immigrants from Britain who arrived as part of Premier Julius Vogel's expansionist programme, and urban businessmen and promoters who wanted closer settlement around their towns (Hearn 1971). However, the power of high-country runholders was not challenged until technological advancement undermined the commercial importance of the wool markets (Hearn 1971). The freezing works that sprang up along the east coast of Canterbury, Otago and Southland in the 1880s and early 1890s were to boost the number of small farmers and their economic and political clout.

4.3.5 Scab control

After Government had been centralised, the campaign against pastoral pests intensified. The abolition of provincial governments and passing of the Sheep Act 1878 together dismantled local resistance to the control of scab in the high country and elsewhere (Sherrard 1966). According to McKinnon (1997):

- Sheep districts and subdivisions were established, and staff were appointed to inspect flocks
- Penalties were imposed for the possession of infected sheep, and the movement of sheep by sea and land was monitored
- Quarantine stations and designated crossing places were set up, and methods were prescribed for disposing of infected animals

Scab disappeared during this period. Canterbury, Napier and Otago Districts were declared free of the disease in 1879 (Scotter 1965). They were still the only clean districts in 1884. Although Amuri was declared clean in 1885, 10 000 sheep were destroyed in the following year on a run near Kaikoura (Scotter 1965). Another 800 sheep were killed in Kaikoura in 1889. New Zealand as a whole was not declared clean until 1892 (Scotter 1965).

4.3.6 Rabbit destruction

Efforts to eradicate rabbits from the high country (and New Zealand in general) were not so successful. The Rabbit Nuisance Act 1876 emphasised that rabbit destruction was the responsibility of the farmer,

but it also supported the establishment of Rabbit Boards. These boards were set up to police the killing of rabbits and, when farmers failed to cooperate, they took action (Nightingale 1992). In practice, the Act was difficult to enforce because rabbits flowed over boundaries and proved impossible to eliminate (Nightingale 1992).

The Rabbit Nuisance Acts of 1880–82 replaced Rabbit Boards with Stock Branch Sheep Inspectors who had powers to destroy rabbits on Crown land and to enter private land and serve notice if they found rabbits. If a run was deemed to be infested, the landholder was made to pay for eradication and had no right of appeal.

Although runholders resented the intrusion of inspectors into their kingdoms and demanded a reduction of their powers (Sherrard 1966), the Act did bring certain results. Both runholders and small farmers responded by trapping, laying poison and liberating ferrets (Sherrard 1966). For example, on Greenhills Station by 1884, rabbit numbers had declined to the extent that pigs and even sheep were being used instead of rabbits to feed the ferrets (Sherrard 1966). However, efficient eradication methods at Greenhills drove the silver grey rabbits over the Seaward Kaikoura Range to Warden, Tytler and Kekerengu Runs. They then went up the Elliott River and over the Inland Kaikoura Range to mate with the brown rabbits in the Awatere Valley (Sherrard 1966). High-country runholders and farmers argued that they should not have to bear the expense of destroying rabbits that had come onto their properties from adjacent farms and Crown reserves (Sherrard 1966). After A.C.V. Bligh abandoned the Waiau-toa Block, government inspectors went in to poison rabbits with phosphorous (Sherrard 1966).

The Rabbit Nuisance Act 1886 brought a change in official attitude, thus appeasing the runholders. The Government now accepted greater responsibility for rabbit destruction (Nightingale 1992):

- Boards were reinstated and their control restored
- The powers of inspectors were redefined
- The Government began to subsidise rabbit boards pound for pound

The 1886 select committee that was appointed to inquire into the rabbit plague concluded that when Crown pastoral leases (now mainly confined to the high country) were due to expire, tenants on pastoral properties spent less money on pest destruction. They therefore advocated longer leases and rewards for improvements (Holland et al. 2002).

4.3.7 Acclimatisation of exotic species

During this period, the Government supported acclimatisation and even protected introductions of exotic wildlife. Although it gained power to protect native birds in 1886 (Grey 1994), written consent to import plants and animals was not required until 1895, and a list of protected species would not be completed until 1907. Not until 1921–22 would the Animals Protection and Game Act offer full protection for most native birds and some land mammals (Grey 1994).

4.3.8 Economic depression

The 1880s were a time of severe economic depression when high-country runholders also had to deal with the depredations of rabbits. Some left their runs and many more prospective tenants clamoured to go onto the land (Condliffe 1959). In a bid to assist existing or new runholders, Rolleston (then Minister of Lands) formulated the Land Act 1882. This introduced the perpetual lease, which provided land at low rental for tenants who had their leases revalued every 30 years, and gave tenants the right of purchase at low values (Condliffe 1959).

In 1885, Robert Stout became Premier and John Ballance the Minister of Native Affairs and also of Lands. Ballance's Land Act 1885 initiated the small grazing run lease, whereby land of 5000 acres (2025 ha) or less could be taken up for terms of 21 years with the right of renewal. This tenure proved popular and long lasting (Condliffe 1959).

4.3.9 Royal Commissions concerning Kai Tahu

By 1886, Stout's Government had decided that while Smith's and Nairn's recommendation of financial compensation for Kai Tahu on the basis of the 'tenths' was not acceptable, the claim could be settled by granting more land (Evison 1993). In May 1886, Ballance appointed Alexander Mackay (who in 1884 had become a judge of the Native Land Court) as a Royal Commissioner to investigate landlessness among Kai Tahu and to find out how much land would be required to meet their needs (Evison 1993). Mackay sent in his report, which was strongly sympathetic to Kai Tahu, in May 1887. In addition to the points he had raised in 1881, he wrote that:

'Another kind of food they have been deprived of is the root of the ti called "kauru." This was a very nutritious food, and was obtained by baking the roots in a Native oven, in which state it contains a large quantity of saccharine matter. Its preparation in places where the tree abounded gave employment to a large number of persons during the months of December, January, and February, it being used as an article of barter, in exchange for other kinds of food, and also for clothing.' (Mackay 1888:8)

The Dart River Bridge site in the upper Wakatipu District is an example of a high-country place where kauru had previously been prepared, but which had been transformed into grazing land since the arrival of European settlers.

As compensation for the loss of their mahika kai, Mackay recommended that Kai Tahu be awarded more land. He also acknowledged that Kai Tahu attachment to their ancestral land had a spiritual quality:

'The general sentiment of the Maoris in olden times with respect to their territorial possessions is not generally understood: it was not "earth-hunger", but "earth-love." They felt keenly the parting with their rights over the land of their ancestors, when the soil, with all its memories and the dignity conferred by its possession, had passed over to the stranger, and in its place they had acquired only perishable goods, or money, which was speedily dissipated.' (Mackay 1888:8)

Stout's Government was replaced by that of Atkinson in October 1887. On 10 December 1890, Mackay was again appointed as a Royal Commissioner, this time to find out which individual Kai Tahu actually had insufficient land on which to support themselves (Evison 1993).

Mackay submitted his report in May 1891 (Evison 1993). He found that of about 1500 Kai Tahu in Canterbury, Otago and Murihiku, only Tairaroa and one other, Topi Patuku, had more than 500 acres (202.5 ha) of land, while nearly half the people had none at all. The Kai Tahu reserves were mostly land of inferior quality and those that had been of better quality had become less fertile because of overuse. For example, when asked by William Rolleston, Under-secretary in the Native Department, at the Native Land Court in Dunedin if he tilled his land when it was 'worn out', Horomona Pohio, who had accompanied the prophet Te Maiharoa during his occupation of Te Ao Marama and had been his spokesman, replied, 'When it is worn out we should desert it but are obliged to go on cultivating. If we had other land we should leave worn out land and let it recover and then return' (Pohio 1868). Growing numbers of Maori were leasing their land to Europeans (Evison 1993). Many were poor and depressed, and saw no hope for the future (Evison 1993).

4.3.10 Runholders and the Long Depression

Some high-country runholders left their land during the Long Depression (1879 to the mid-1890s), a number of whom were forced to give up their holdings to loan and other financial companies (Scotter 1965). By the end of the 1880s, the previously 509 runs held in 182 properties in Canterbury had been reduced to 336 runs worked as 66 holdings (Scotter 1965). Twenty-two Canterbury properties passed into the hands of finance companies between 1879 and 1890 (Acland 1975). They were all large pastoral stations, 15 of which were high-country runs and were probably leased from the Crown. Numerous runholders had been ruined by the depression, scab, rabbits and snow (Scotter 1965). However, the largest high-country leaseholdings were secure. For instance, William Gerard still held 21 runs amounting to 134 868 acres (c. 54 622 ha) on Double Hill, Manuka Point and Snowdon, and ran 54 000 sheep (Scotter 1965).

When the Canterbury leases were due to be renewed in 1889, the runs were rearranged into three classes before being re-offered (Scotter 1965):

- The western, high-country areas, including the mountain tops, glaciers and shingle slopes—2.3 million acres (931 500 ha), were divided into 68 holdings of mostly well over 5000 acres (2025 ha) each
- Better land, which could possibly be economically worked in blocks of 5000 acres or fewer, and which was used to establish 50 runs of a total of 154 000 acres (62 370 ha)
- 51 000 acres (20 655 ha) on or adjacent to the Plains, which were divided into 19 agricultural/pastoral runs

For a decade, land officers had been urging fixity of tenure to encourage better care of runs, and on 31 May 1889 the Canterbury runs south of the Rangitata River were offered at auction on fixed terms of 10–21 years (Scotter 1965). J.B.A. Acland and C.G. Tripp renewed theirs. George Rutherford outbid Thomas Teschemaker for his Otaio run, allegedly from spite over a horse-racing scandal (Scotter 1965). There were no bids for those infested by rabbits in the Mount Cook region. Northern Canterbury runs were offered on 4 June with the same fixed tenure, and William Gerard and G.A. McMillan renewed their leases (Scotter 1965). The Loan and Mercantile Company now held 330 000 acres (133 650 ha), half of the area it held before, and there were few banks or companies among the other lessees (Scotter 1965).

In Amuri County, there were relatively few changes of ownership up to the end of the 19th century, which contrasts with the earlier period. By the early 1880s, the district was known as ‘one of the last great squatters’ preserves in New Zealand. Securely freeholded, the stations were legally impregnable until their owners chose to sell, or until Parliament enacted a new kind of land legislation’ (Gardner 1956: 290). Although half the great estates were for sale, the mortgagees refused to sell at a loss and rarely sold at a profit (Gardner 1956). Since New Zealand was in the throes of depression, anticipated subdivisions did not occur when the railway reached Culverden in 1885 (Gardner 1956). In both Canterbury and Marlborough, the banks and the station agencies had increasing numbers of properties to sell. Even though in Amuri County nearly all runs carried mortgages, runholders mostly weathered the storm because, according to Gardner (1956), they possessed fine properties and managed them well.

During these harsh economic times, pastoralists with vast runholdings, including those in the high country, were often attacked publicly (Gardner 1956). Many people believed that land aggregators were preventing hard-working and thrifty farmers from taking up small blocks of land (Gardner 1956). In response to such hostility, Andrew Rutherford wrote wryly to the *Marlborough Express* that squatters, like the moa, were about to become extinct, and that he was anxious to preserve a few in Amuri so that future generations would have something to abuse (Gardner 1956). Despite Rutherford’s pessimism, after the depression ended in c. 1895, the Amuri runs were to enjoy an Indian summer of fame and prosperity, and the runholders became known throughout New Zealand as the ‘Amuri Wool Kings’ (Gardner 1956).

By 1892, most of the best land in New Zealand had been freeholded. Vast high-country areas were still owned by the Crown but, in general, these were of poor quality, rabbit infested or isolated with difficult access (Condliffe 1959).

4.4 SUMMARY

4.4.1 General historical features

- Increasing pressure on land available for development
- Intensification of farming methods
- Population explosion and rapid development of the transport grid
- Declining land fertility and stock numbers
- Centralisation of government land administration (1876) leading to uniformity of Crown pastoral leases
- Elimination of scab assisted by central government control of provincial law and its administration
- Ascendancy of rabbits
- Construction of homesteads and station buildings using materials manufactured nearby or brought in from outside, and erection of grander houses
- The advent of refrigeration in the 1880s encouraged cross-breeding of sheep for meat and for wool, sowing of permanent exotic pasture, fencing of paddocks, and growing of supplementary winter crops on low-lying land
- Crown pastoral leasehold land mainly confined to the high country
- Development of tourist routes, hotels and coach services
- Mining and sawmilling

4.4.2 Key physical resources

- Light (No. 8 gauge) wire fences
- Rabbit-proof fences, rabbiters' huts and rabbit-poison containers
- Snow fences
- Flood gates and road gates
- Homesteads, many of which were built of imported materials
- Other station buildings, such as shearers' quarters and woolsheds
- Clusters of buildings and trees encompassing the homesteads
- Droving tracks
- Tourist routes
- Accommodation houses and hotels
- Mail and passenger coaches
- Roads, railways, bridges and telegraph lines
- Quarantine stations
- Sheep dips
- Use of concrete for station construction
- Abandoned mines and sawmills

5. 1891-1912: The Liberal era

5.1 LANDSCAPE MODIFICATION

By 1890, throughout the mountainous and lower sub-alpine areas, tall tussock grasslands had been transformed by fire and grazing pressure to short grasslands. Areas that were once the domain of indigenous species had been invaded by naturalised grasses from Australia, California and Europe. Throughout the high country, but especially in drier parts, native grassland ecosystems had been steadily altered by exotic grasses tolerant of low soil fertility, by sheep and cattle grazing, and by rabbit browsing. There were few palatable herbs in tussock grassland; consequently, these areas could easily be overgrazed (Holland et al. 2002). The result was a steady depletion of the range lands. By this time, rabbits had become a plague in many parts of the high country (Holland et al. 2002).

In 1910, F.W. Flanagan, H.D.M. Haszard and James Stevenson, Crown Lands Commissioners, when reporting on the Canterbury pastoral runs wrote:

‘In travelling over the Mackenzie Plains one is impressed with a weary feeling of sadness and regret at the large extent of country which is almost depleted of all vegetation, save sorrel and “scab-weed.” The affected area contains about 90,000 acres. The dead and dying condition of the native grasses over such a large area is a matter of grave importance to the Dominion. There is amongst the settlers in the Mackenzie country a difference of opinion as to the cause of the depletion. The oldest settlers allege that it is due primarily to the burning of the native tussock some forty years ago, and that, owing to the ravages of rabbits, frosts, droughts, and high winds characteristic of the climate, it has not been able to become re-established.’

(Flanagan et al. 1910: 7)

The commissioners concluded that probably nothing had contributed more to the widespread destruction of pastoral high country than the indiscriminate burning of native tussock (Flanagan et al. 1910). The result had been a dramatic reduction in the carrying capacity of the properties. While they thought that ‘a proper amount of burning at the proper season’ was necessary and beneficial, the real damage was done by the summer burning (Flanagan et al. 1910: 8). This type of burning, which they said should be stopped, was usually done by musterers, who signalled to one another from ranges by fires, which were allowed to spread rapidly unchecked (Flanagan et al. 1910). When fire swept over the sunny faces, the tussock almost burnt out, and in a very dry summer fire would wipe it out altogether. Then the mountains would begin to disintegrate—rocks would loosen, tearing away the mountain sides and triggering shingle slides. The commissioners wrote that ‘As a rule, pastoral lessees give their irresponsible musterers a free hand as to burning’ (Flanagan et al. 1910: 9). They recommended that new licenses contain a condition prohibiting the burning of native grasses,

except in spring, to create firebreaks, and that inspection of pastoral runs be carried out systematically. Rabbit inspectors could perform this task as part of their inspection work in the high country (Flanagan et al. 1910). The commissioners also recommended that, wherever possible, English grasses be sown on the surface, and that the Government plant the Mackenzie Country with trees to ameliorate extremes of temperature, help make the country safer for stock and create shelter. They advised that reserves for travelling stock be established (Flanagan et al. 1910).

At the same time, botanist Alfred Cockayne published the first serious scientific study of farming practices on tussock grasslands for the Department of Agriculture (Cockayne 1910). He firmly rejected any arguments in favour of burning, contending that it increased pasture growth and carrying capacity only briefly, and that the ultimate consequence was deterioration and depletion:

‘I am fully aware that even now many runholders will scout the idea that burning will, if persisted in, cause an almost entire depletion of most of the natural grazing areas in the drier portions of the South Island. One has only to point to the deplorable conditions of many of our southern runs, however, to appreciate the significance of this pernicious practice.’
(Cockayne 1910: 15)

By the late 19th century, landholders and government agencies began to appreciate that open-country environments require diligent management to ensure their continuing productivity (Holland et al. 2002). The vegetation depletion and degradation brought about by fire and grazing animals had caused stocking rates to plummet. There were 511 188 sheep in Vincent County, Central Otago, in 1880, but just 315 757 40 years later (Holland et al. 2002). On the rabbit-infested lands of Galloway Station in Central Otago, sheep numbers fell from 75 000 in 1879 to 21 000 in 1904 (Holland et al. 2002), when land degradation was at its worst. In open country where unimproved grassland prevailed, carrying capacity began to decline in the 1880s, the area covered by scabweed expanded alarmingly, shingle fans grew and steeper slopes failed (Holland et al. 2002). After the boom year of 1878, falling wool prices, several cold winters (which culminated in the heavy snows of 1895) and runholders’ attempts to maintain sheep numbers despite increased numbers of rabbits resulted in reduced wool clips from malnourished Otago sheep (Holland et al. 2002). By comparison, in New Zealand as a whole, refrigeration (which meant that sheep could be bred for meat as well as wool) had stimulated an increase in sheep numbers from 12 985 000 in 1881 to 20 233 000 in 1901 (Thornton 1986).

In one account, written in the early 1890s, the owner of Molesworth Station, William Acton-Adams, described the soil erosion on the Elliott run:

‘If you notice the slopes of the hills, particularly at the upper end, the surface is peeling away through the rabbits and dry weather and large patches of land are becoming useless. This is exactly what ruined the Awatere Runs and it threatens to ruin a great part of this block.’

(Acton-Adams 1891, cited in McCaskill 1970: 76)

By the early 20th century, most high-country mahika kai had been destroyed, especially in Kemp's Block (Evison 1993). High-country bush continued to be razed by burning and sawmilling. For example, it is thought that the bush at Freehold Creek continued to be cut until around 1903 (Ian Hill, DOC, pers. comm.). Stoats and cats were killing native birds (Evison 1993). Deer were penetrating the forested river valleys. In 1892, Reverend P. Walsh, an amateur botanist, published a warning concerning the introduction of deer to the country. Whereas in Europe deciduous trees had evolved in the presence of ruminants of many types, in New Zealand the situation was quite the reverse. He wrote that the forest had evolved in the absence of any four-footed browsing animals, and the constituent parts were so interdependent for nourishment and protection that once the balance was disturbed, the entire growth would rapidly deteriorate (McCaskill 1973). His warning went unheeded and deer were protected for many years.

5.2 PHYSICAL REMAINS

5.2.1 Effects of refrigeration

Historian Jim McAloon contended that:

'Of all the changes in the farming sector between 1880 and 1914, the most important were those related to refrigeration. Whereas once the entire primary exporting sector had been dominated by wool, by 1900 this was no longer so. Meat, butter, and cheese had provided alternative and more reliable sources of income. The rise of the frozen meat industry added to the incentives for improving flocks, as it created the need for different breeding arrangements in order to achieve a type of sheep that would produce optimum meat and wool.'

(McAloon 2002: 49)

The invention of refrigerated shipping altered the relationship between runholder and small farmer. Meat had become at least as valuable as the fleece. Refrigeration made possible the production of meat and also dairy products for overseas markets on small, intensively farmed blocks of land. By the late 1880s, freezing works had been built by the main ports (Hornby, Islington, Ashburton, Smithfield, Pukeuri, Burnside, Matura, Makarewa and Ocean Beach) and a few ships had been fitted out. Prosperity returned after 1895, continuing until 1921, and small farmers flourished, becoming a force politically. American anthropologist Elvin Hatch wrote that:

'Refrigerated shipping, then, did not eliminate the distinction between farmers and run-holders, for now two rather different kinds of sheep raising coexisted. One, sheep farming, was a variety of intensive agriculture, for it involved the use of agricultural equipment to work the soil. The people who engaged in this production were cockies; their farms were labor intensive, they required only a few hundred acres to support their families, and their incomes came from the sale of both meat and wool. The other form, run-holding, was a continuation

of extensive [high-country] pastoralism, inasmuch as the flock consisted of merinos that were fed on tussock. Agricultural equipment played a minor role in the run's operation, which was not labor intensive. A minimum of several thousand acres were needed to support a family. And a large majority of the run-holder's income came from the sale of wool.' (Hatch 1992: 28)

5.2.2 Great estates

Runholders of large areas in the high country and on the foothills and plains (sometimes known as 'gentry') were set apart from the workers and the small farmers by their spacious homes and gardens and the number of household and station staff they employed (Hatch 1992). Figure 18 shows staff at Castle Hill Station, and Fig. 19 gives a more distant perspective of the station buildings, with a water reservoir in the foreground. Runholders came from varied backgrounds and had a wide range of incomes. Some originated from Britain's upper middle class, others had been poor but astute and experienced Scots shepherds. Some had small, poorly situated and marginal holdings, while others leased or owned several estates (Hatch 1992). Wealthy runholders led a genteel social life, organising parties for activities such as tennis, hunting and shooting (Hatch 1992). Two examples of prominent pastoral runs are Cheviot (part of which was Canterbury high country) and Otekaike (Otago high country).

Cheviot

William Robinson had purchased land between the Hurunui and Waiau Rivers on the Cheviot Hills Run of J.S. Caverhill in 1856, the western part of which included the high-country Lowry Peaks district (Gardner 1990). Between 1857 and 1862 he freeholded the 84 000-acre (34 020-ha) Cheviot Hills Run. His great wealth did not make him popular during the Long Depression, and his extravagant purchases of land, stock and buildings earned him the nickname 'Ready Money Robinson' (Gardner 1990). However, he was also an extremely competent pastoralist. In 1879, he built the Port Robinson slipway and the Hurunui Bridge, and his large mansion was completed in 1888 (Gardner 1990). Historian W.J. Gardner wrote that 'Cheviot Hills became a self-sufficient kingdom and a symbol of runholder wealth. A lover of trees and birds, Robinson surrounded his house with gardens and plantations and set out miles of hawthorn hedges, parts of which still survive' (Gardner 1990: 371). The year of his peak sheep return was 1886, when 105 000 were counted.

Otekaike

A station in northern Otago, initially known as 'Run 28' and with boundaries at Kurow and Otekaike Creeks, was later known as 'Otekaike' (Hall 1985). It was first licensed in 1854 to Samuel Hillier Pyke, but soon changed hands twice. The third owner, John Parkin Taylor, lived in a cave. In 1861, William Heywood Dansey purchased the property and quarried limestone near this cave to construct a dwelling (Hall 1985). In