GARDEN SUBURBS AND NEW ZEALAND RAILWAYS 1922-1929

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During the first two decades of the 20th century, as town planning emerged as a profession, many of its new ideas about urban design and layouts were introduced into New Zealand. One of the first to appear was the garden suburb concept which Miller (2004, 37) describes as "one of the founding paradigms of town planning"! The Spur on Christchurch's Port Hills, Durie Hill in Wanganui, and Orakei in Auckland have all been cited as examples of gardens suburbs in the New Zealand setting, however Miller (2004) suggests that there was a degree of self labelling involved in all three cases so that none fully demonstrate garden suburb principles.

Interest in housing was not confined to the garden suburb, and the nineteenth and early twentieth century saw the development of model villages such as Port Sunlight, which were in effect well planned company towns, while there was a growing interest in providing public housing to relieve the poor living conditions of many in the large cities of Europe, Britain and the USA.

Garden suburb rhetoric was also associated with the activities of the Railways Department as it endeavoured to meet its own considerable departmental housing needs in the 1920s. To date these efforts have received only passing mention in the standard accounts of public housing (Ferguson, 1994) although they have been studied in more detail in terms of architectural history (O'Conner, 1972, Ullrich, 1988, Kellaway, 1988; 1993) and oral history (Green ,2000). Essentially the Railway Department was dealing with a specific aspect of the general housing shortage that marked the early twentieth century. Their response was to orchestrate a garden suburb housing scheme for its own employees and that is the subject of this paper.

New Zealand Railways Housing Problems

The North Island main trunk railway line was completed only as late as 1908. Railways then began to supersede coastal shipping as a mode of transport and communication. Maintaining the track and rolling stock as well as managing the flows of passengers and freight called for a large staff, often working in day and night shifts. Significant railway depots such as Ohakune were themselves only small isolated rural settlements with limited accommodation thus from the 1880s Railways had provided rental houses for station masters and other permanent staff. After World War I, with the influx of returned servicemen coming back to their previous employment, the department was faced with a severe housing shortage. In 1922 the department estimated that an additional 1200 houses were needed for its staff.

This represented a problem of considerable magnitude given the larger accommodation shortages of the immediate post-War years and private builders were heavily committed. Railways realised that in these circumstances that its previous approach of having the private sector build houses to a range of designs was not viable.

Instead the department drew on its own resources to build a sawmill and house factory at Frankton junction in Hamilton. Railways had access to timber from indigenous forests under its own control, had its own architects and the rail network to transport houses to where they were needed. When they arrived they where assembled on-site – probably some of the first kitset homes ever seen in New Zealand. They had control over the whole process that was organised on then still relatively new mass production lines.

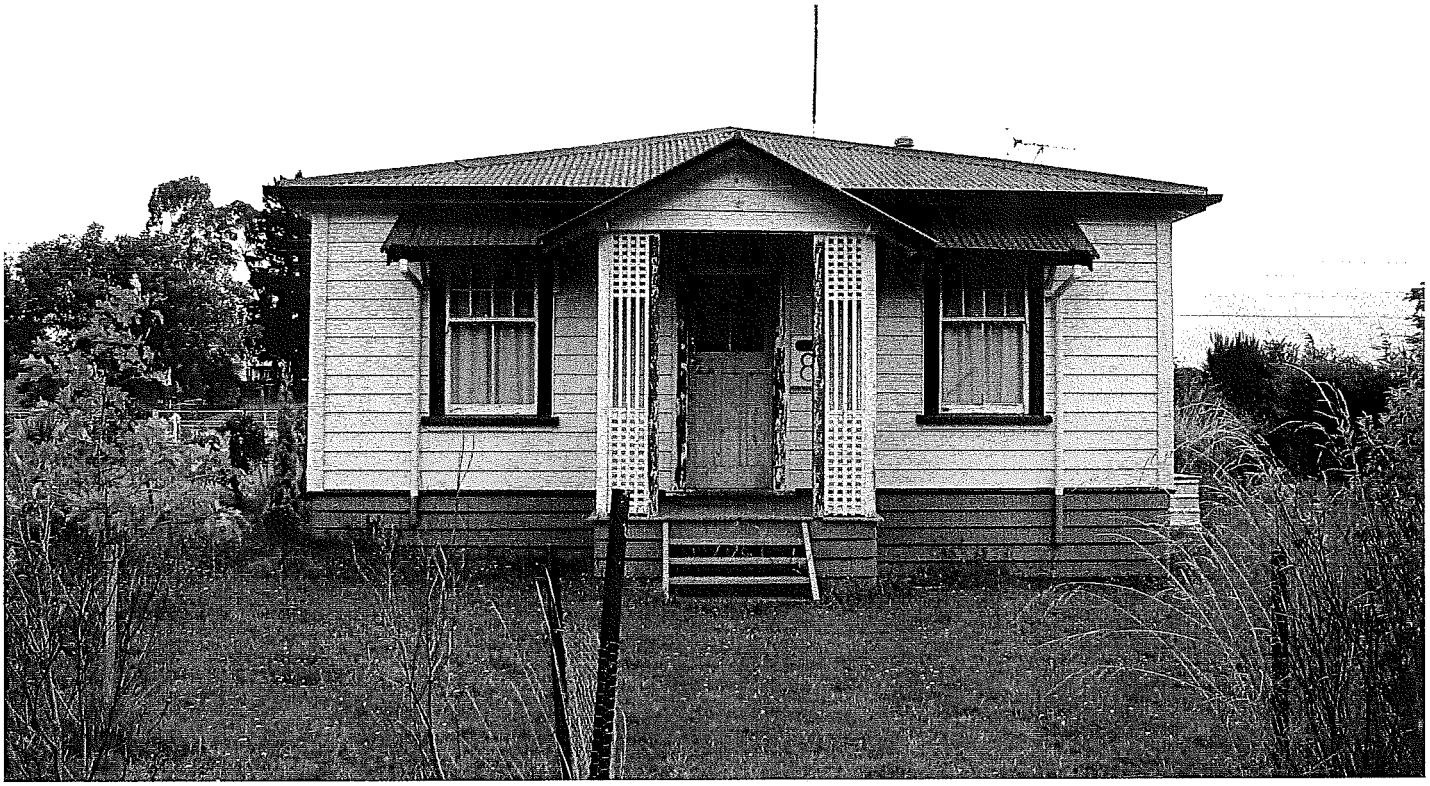
Railways and the Opportunity for Garden Suburbs

The Frankton factory mass-produced a small number of standard designs, and from 1920 to 1926 was able to steadily reduce the cost of these from £971 to £635. The house designs were derived from English and US factory house plans. Railways had however seized the opportunity to do more than just mass-produce housing. From the outset, Railways presented their new housing scheme in terms of garden suburb ideals.

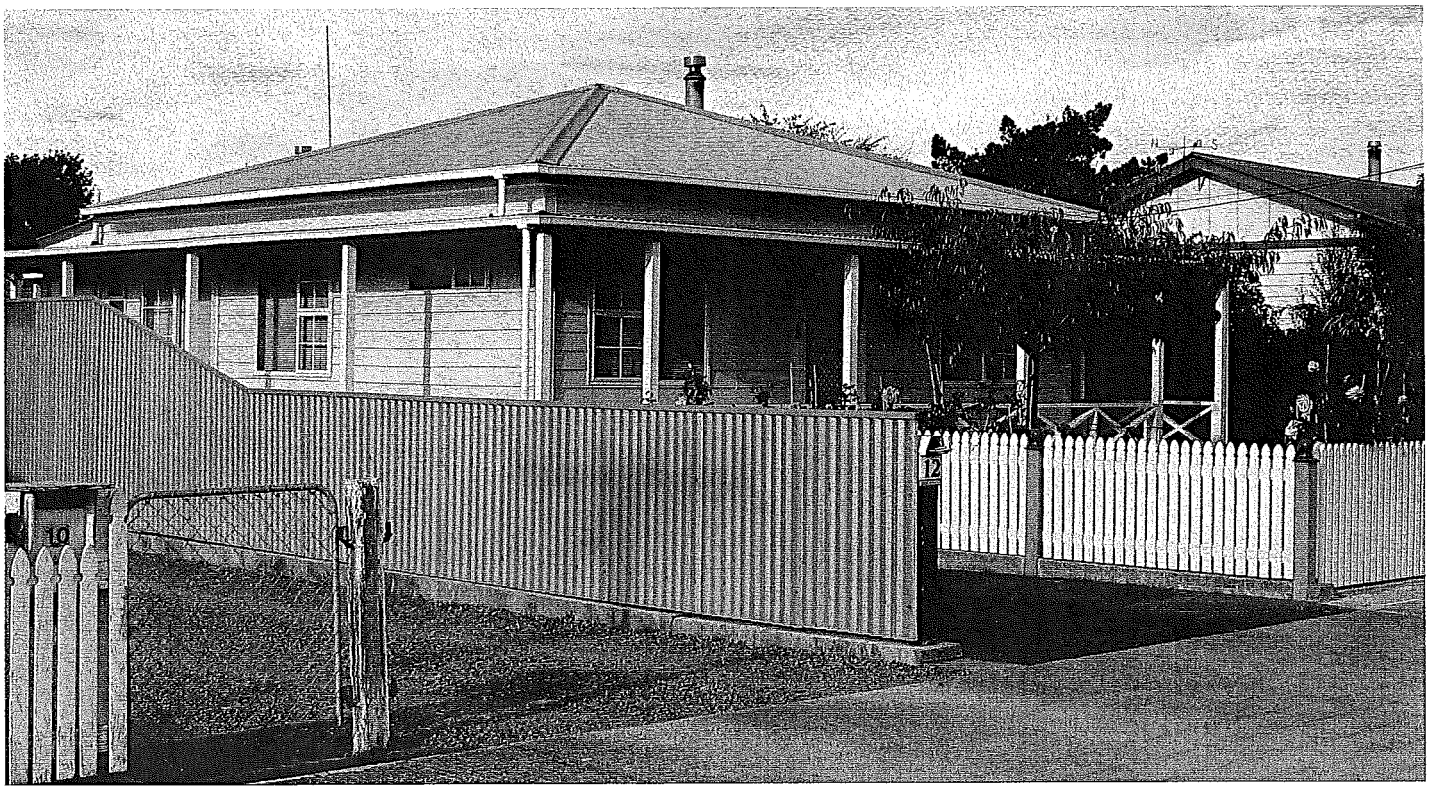
The exact fashion in which this ideas was taken up in the department remains unclear, however, George Troup (the head of the Architecture Branch of Railways) did attended the Town Planning conference

ABOVE:: Renovated AB 296 Roof A Porch A cottage at Milson in Palmerston North. Small rectangular plaque on the tap right hand side under the eavesdisplays thefactorynumber. Only two of the Milson housesappear to retain thesenumbers which provide another means of dating the house. Originally Milson railways staffhad mail delivered on the basis of house numbers, but becausesequentially numbered houseswerenotside by side this causeddifficulties untilresidentspetitioned Railwaysto be allowed to display more conventionalstreet numbers, which was granted as long as they were only on the gates and not the houses.

ABOVE::Ohakune was an important station on the North Island main trunk railway line, despite its isolation. Railways provided houses here from 1908, shortly after the main trunk line was connected. Examples such as this on Railway Row were built by private contractors to a range of Public Works Department designsandpredate the Frankton prefabricated house era.



ABOVE:: A railway house from the Frankton factory situated at Ohakune; it is of the AB 296 type with Roof A and probably a subsequently modified porch A. Some of the Ohakune houses have enjoyed a new lease of life as ski season chalets.



ABOVE:: A much modified AB 296 Roof C Porch C Frankton railway house. This example has had the original porch replaced by a wraparound veranda and new window frames.

RIGHT:: Table 1: Railway Garden Suburb Settlements (Source: Meyer, 1988, Kellaway, 1993).

NAME	AREA (AC)	YEAR PLANNED	HOUSES PLANNED	HOUSES COMPLETED
Frankton	50	1920	180	160
Marton	48.5ac	1920	50	30
Newmarket	?	1925	24	24
Taumaranuni	?	1921	?	29
Taihape	?	1921?	28	28
Ohakune	?	1920	77	77
Ngaio	?	1927	22	72

in 1919 where the garden suburbs and housing were much discussed. In particular Reginald Ford, the architect and civic designer, highlighted the existence of what he regarded as some very successful UK small garden suburbs of 20-50 acres. The Minister of Railways subsequently took up the challenge in announcing that "I would desire to see every railway settlement a garden **suburb" (AJHR, 1922, D2, xlv).**

The Frankton Railways settlement adjacent to its sawmill and house factory was the earliest and most elaborate attempt by Railways to convert this ideal into a reality. The site was of 80 acres of which 30 were set aside for the house factory and associated timber yard. The settlement was orientated around a central recreation reserve with smaller reserves at the eastern and western entrances and it was envisioned that the entire settlement would be screened by plantings. The streets were not laid out in a simple grid pattern but had some crescent like features. There was ample room for gardens for each house.

By 1928 the Frankton settlement comprised 133 houses, with space for 160 houses in total. The majority were of the four AB/296 designs of three bedrooms with a smaller numbers of room AB/326 and AB/1123 houses. It was intended to provide housing for single families and thus provide for healthy living while fostering a sense of community. The latter was added to by the construction by Railways staff in their own time of a community hall, including a library, and establishing of local sports clubs (Kellaway, 1988).

Other Railway Settlements

Larger Railways settlements in addition to Frankton included, Otahuhu, Newmarket, Taumauranui, Ohakune, Taihape, Marton, Milson, and Ngaio. Of these Frankton has the fullest range of the garden suburb design elements. To a lesser extent the settlements at Otahuhu and Marton also have some features, notably in the recreation reserves, the move away from a strict grid street layout, and screening planting in the latter case.

In the case of the Milson settlement constructed in 1926 adjacent to Palmerston North, the more pressing requirements of housing had begun to override the garden suburb aspects of the scheme. Milson was constructed on a simple grid layout and lacked any central reserve or planting to screen the settlement although it did eventually have a community hall and a school was established nearby. Even so, the local paper reported that "the settlement bids fair to assume the character of a neat suburb than the character of an industrial residential block" (Manawatu Evening Standard, 19 February 1923).

Table 1 (above) indicates the extent of Railway's housing construction and demonstrates both the extent and general success of the programme.

Abrupt End of the Railways Scheme

By 1926 Railways had increased it estimate of staff housing required up to 1500 and the Frankton factory had even provided a small number for the Works Department. Gordon Coates, the new Prime Minister, had in 1925 retained the Railways portfolio that he had earlier held under W.F. Massey. He saw the opportunity to further address housing shortages by providing dwelling to local authorities but was aware of private sector concerns. This did not stop Coates from supporting the Hutt Valley Land Settlement Act, 1925.

This was a bold scheme which combined a substantial garden suburb designed by Reginald Hammond and an industrial estate centred on new Railways workshops. Some 300 Frankton factory houses were erected in Lower Hutt and were sold to people who did not meet the lending criteria for the governments State Advances Department, the main provider of housing finance.

The Frankton factory ceased production abruptly in 1929, some writers suggesting that this represented a victory for the private housing providers, although the department itself justified it actions in terms of having now met its housing requirements as well as other issues to do with costings and rentals.

What has subsequently been somewhat lost sight of, against the scale of the Labour government's state housing schemes of the mid 1930s, is the extent to which the Railways garden suburbs experiment, in its mass production approach of a limited range of house types, and the Lower Hutt Scheme, foreshadowed on a smaller scale aspects of Labour's subsequent achievements in the field of public housing.

Former Railways Settlements Sites Today

The railway houses ultimately were a casualty of corporatisation. In 1988 New Zealand Railways gave way to Railcorp and, as a commercially brientated State Owned Enterprise, it had no interest in owning rental housing. Early in 1988 Railcorp announced that it intended to sell off some 2500 railways houses valued at $87m throughout New Zealand.

This included many built after the closure of the Frankton factory. Employees were given the first option with the remaining houses being offered to Housing Corporation. At Frankton around 50% of the houses passed into private ownership, the remainder being acquired by Stonekey Developments. Some 60 houses had been relocated by 1990 by the time that Hamilton City Council's Heritage Protection Zone was in place (Bigwood, 1990).

In the settlements at Marton and Taihape, many of the houses have been purchased and a number

ABOVE:: A restored AB 296 Roof A porch A cottage from Milson. A tile roof has replaced the original iron and the chimney has gone but original windows and doors remain. Of the four basic AB 296 designs this particular style seems to hoid particular appear to home restorers perhaps because of its 'cottage like' look. The paling fence in front of this property was another distinctive feature of the Milson sections.

have been relocated. The Ohakune houses largely remain because of their proximity to ski slopes, having been acquired for use as ski lodges during the winter season. The Milson settlement in Palmerston North is now a mix of owner-occupied freeholded houses, with some Housing New Zealand Corporation properties, as well as some infill townhouses having been erected on the fronts of some sites. A number of the rental properties have been relocated onto smaller sites. By 2006 real estate agents were even describing for sale properties as "character houses" a term usually reserved for 1920s bungalows.

The Newmarket settlement represents the most extreme land use change since 1988 with all the houses having been removed and several high-rise apartments being erected on the site.

Conclusion

The Railways housing scheme represents another arena in which the garden suburb idea was partially put into practice in New Zealand. It differs somewhat from other examples in that the houses were mass-produced to a small number of standard designs. Ultimately they bore, like the more often quoted examples of The Spur, Durie Hill, and Oraeki, only a limited resemblance to the garden suburbs of the UK. This resulted not from a desire shared by private developers to make a profit from land subdivision but from Railways' pressing need to quickly provide basic housing. The grid layout of Milson is symptomatic of this pressure and exemplified by the way in which the garden suburb was progressively whittled back in the imagination of Railways.

Ferguson makes the point that the Railway designs were for solid practical cottages, rather than being particularly innovative. Perhaps in consequence the railways houses have little of the heritage cachet that has recently been extended to Seddon's Workers Dwelling Act houses in Petone on their centenary or to the early Labour State housing scheme dwellings.

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