

BETTER BUILDING CONFERENCE 2014

Camp Nation: The evolution of temporary settlement in New Zealand

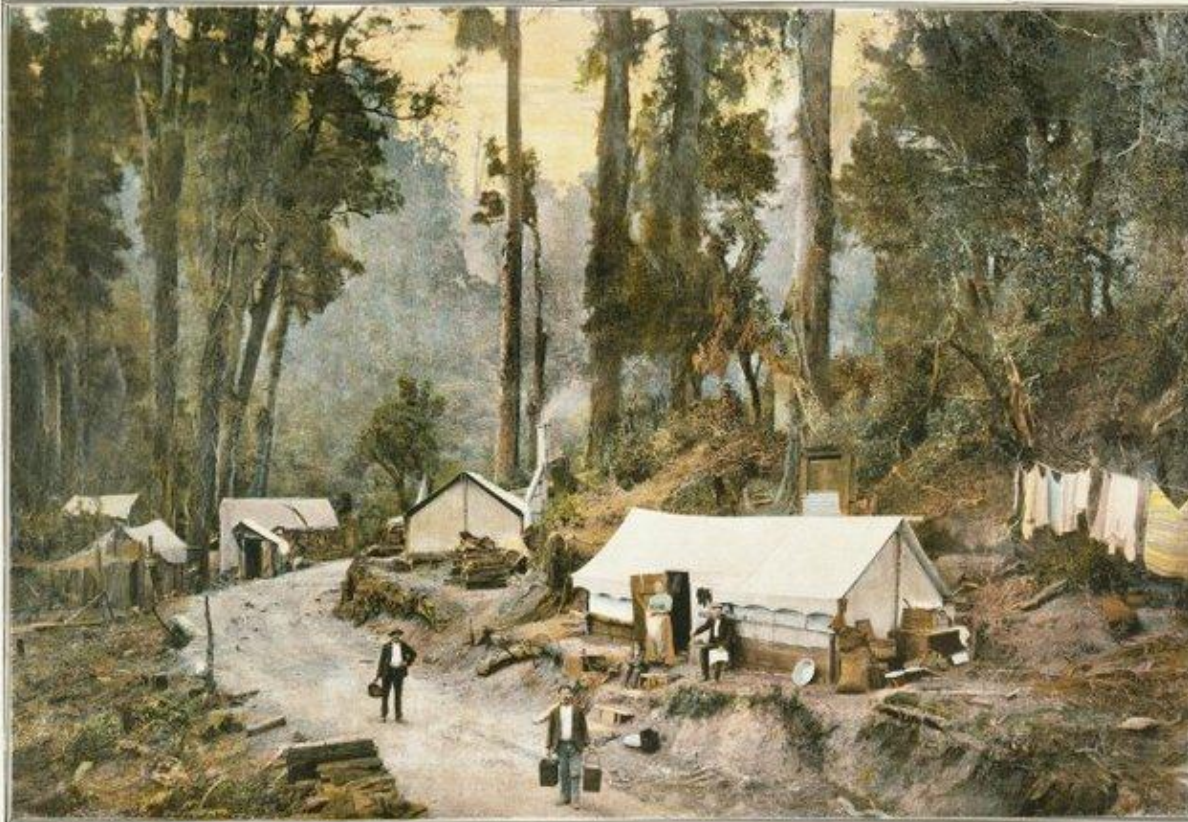
Professor Diane Brand

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**Engineering a tent in Taranaki [1856] William Strutt
Alexander Turnbull Library**

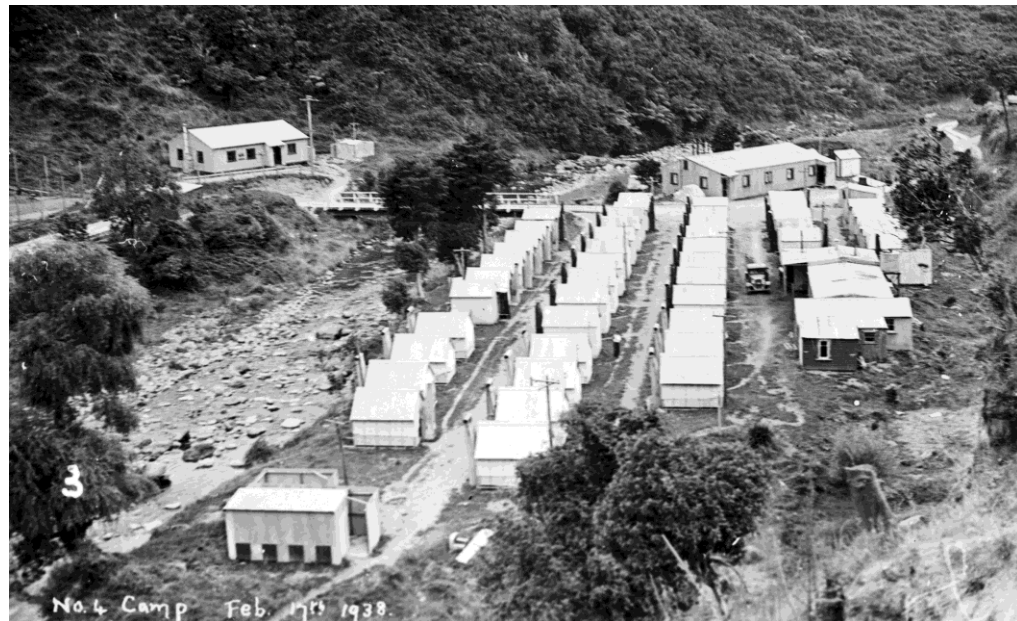
Supplement to "The Auckland Weekly News" Special Christmas Number, 1908.



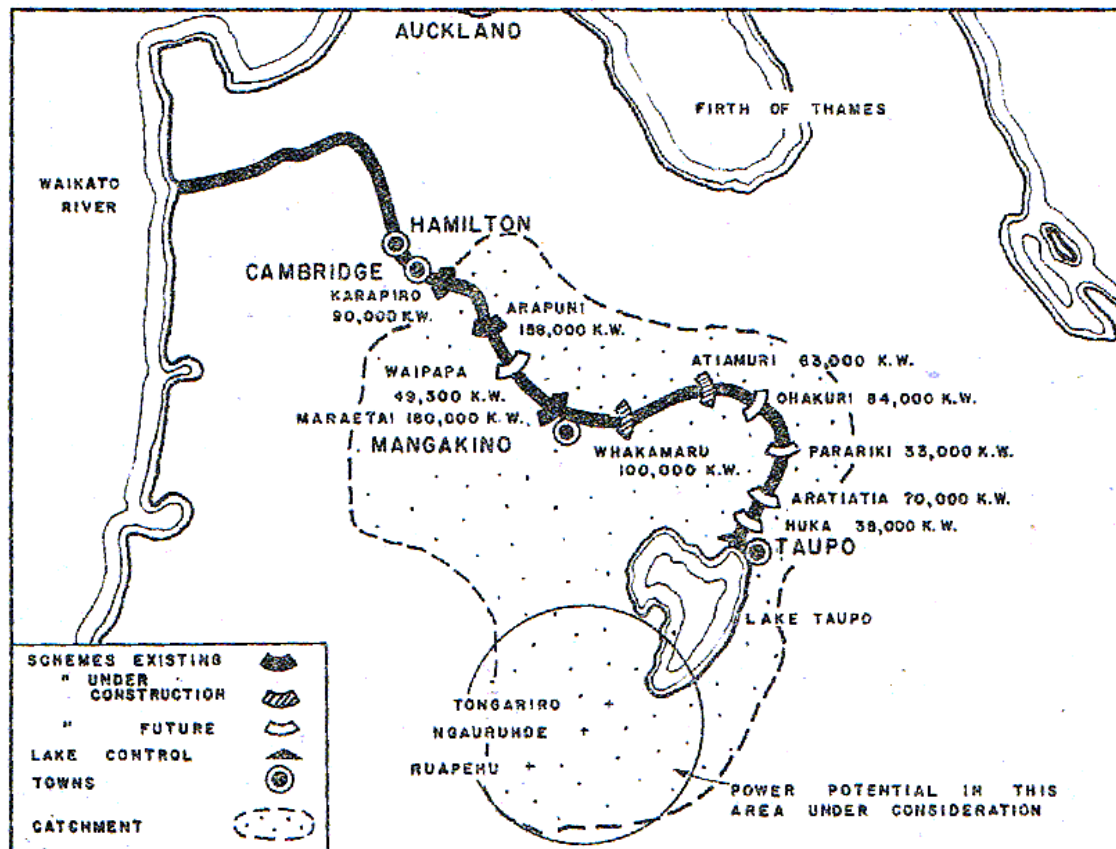
Camp Life in the New Zealand Bush: A Scene on the Route of the North Island Main Trunk Railway at the Hapuawhenua Viaduct, near Ohakune.

The scene shows a portion of the magnificent bush, which is to be seen with almost the same effect from the North Island Main Trunk Railway, which runs up the slopes of the bush and is now generally accepted. The illustration shows the Hapuawhenua Viaduct, which is the largest of its kind in the world, and is the most popular scene in the bush. It is the most popular scene in the bush, and is the most popular scene in the bush.

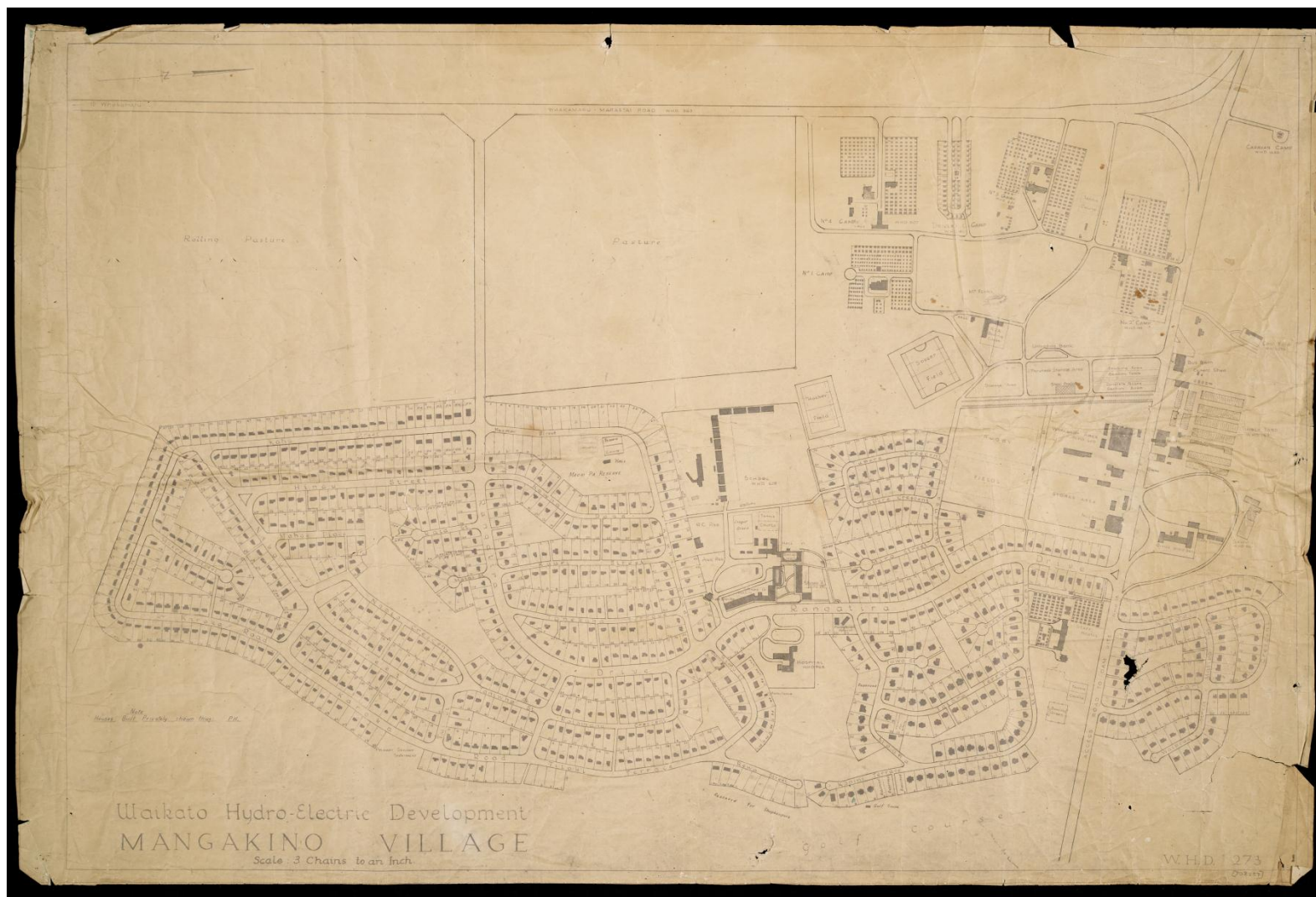
Railway Camp Hapuawhenua Viaduct [1908] author unknown
Alexander Turnbull Library



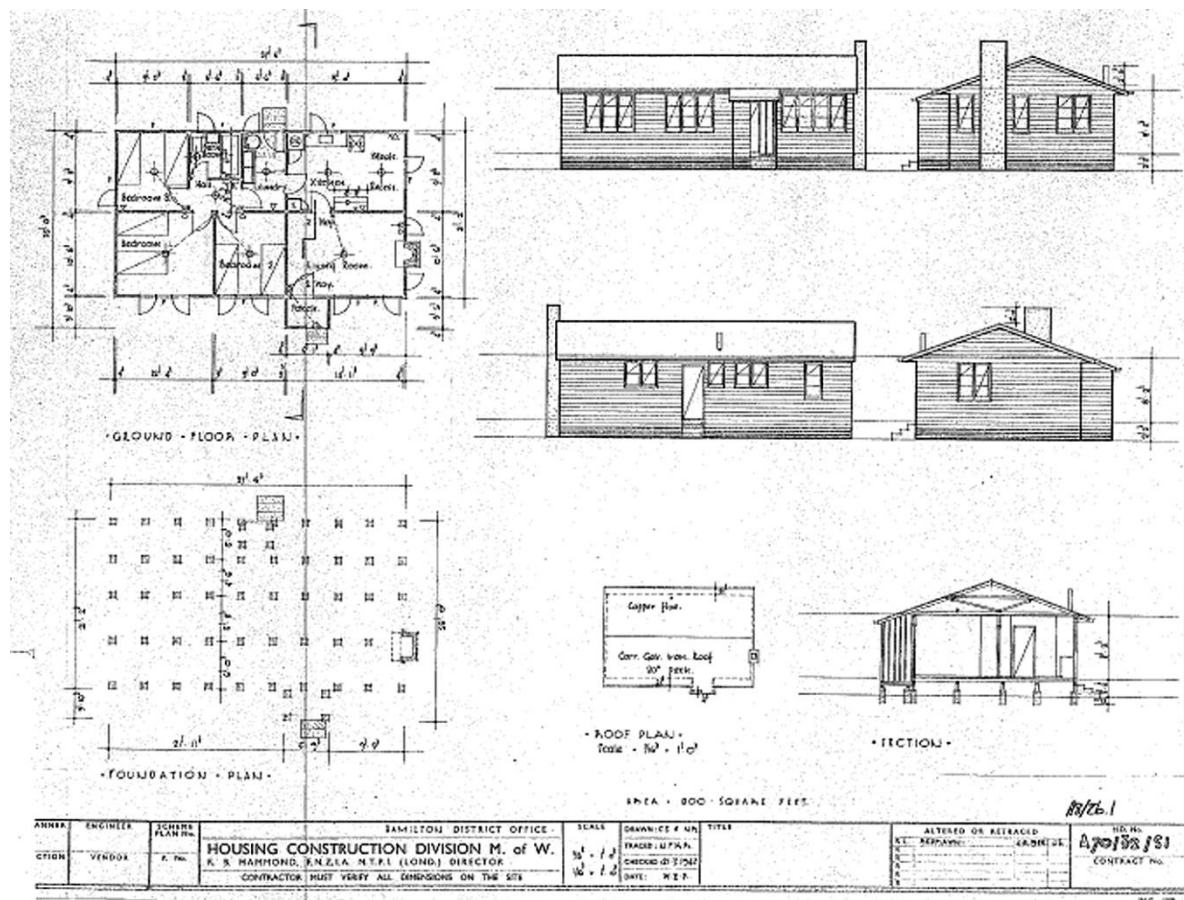
Miners camp Inangahua [1910] and public works camp Kopuawhara Valley [1938] authors unknown
Alexander Turnbull Library



Waikato River Power Development [1954] PWD Annual Report by Chief Engineer



Waikato hydro-electric development Mangakino Village [1951?]
Alexander Turnbull Library



Mangakino type married staff accommodation 80m2 [1947] Archives New Zealand



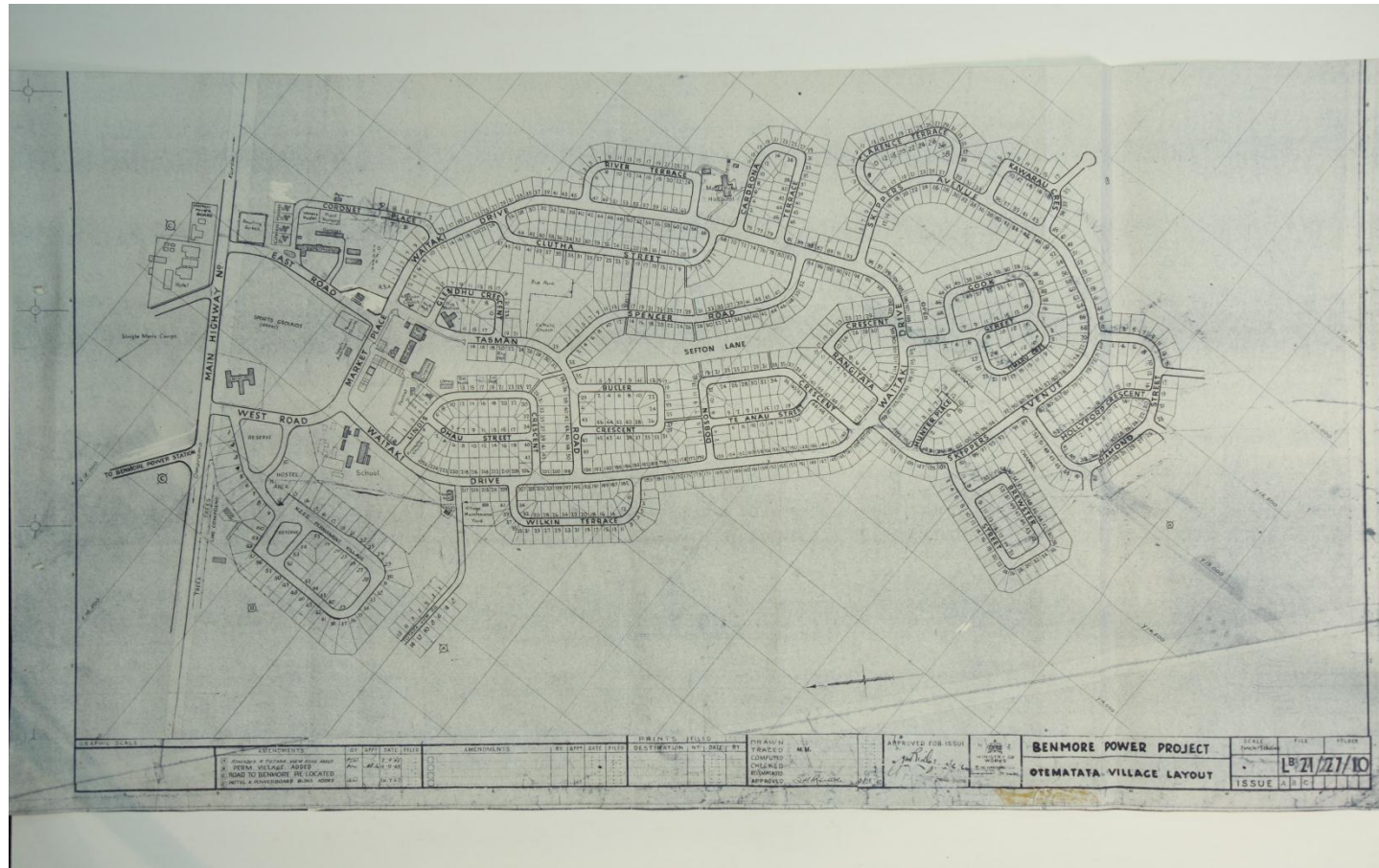
Additions to a Karapiro remodel worker's cottage Mangakino [2012] Rick Allender



Part site plan Mangakino Village contract for Karapiro cottages (Mangakino types dotted) [1950]



Naenae [1944] John Pascoe Alexander Turnbull Library



Benmore Power Project Otematata Village layout [1960] North Otago Museum

As a hybrid of camp and suburb, the twentieth century New Zealand hydro settlement provides a model for more flexible forms of built environment planning and procurement in association with critical infrastructure or as an adaptive response to a natural disaster.

The urban design principles which are particular to these towns and which can inform contemporary flexible settlement initiatives are:

- 1 The deployment of traditional, simple, adjustable, repeatable and upgradable residential 'hut' typologies and industrial 'shed' structures.
- 2 The use of local building materials and industries for prefabrication and component supply
- 3 The provision of basic infrastructure systems which allow rapid and economical evolution and devolution of residential sectors
- 4 The limited set of additive/subtractive structural patterns which facilitate expansion or contraction (grids for single men's quarters, loops for temporary housing and squares or commons for permanent villages)
- 5 The zoning of industrial and community uses at the town centre or the national highway interface

Engineered landscapes, technical adaptability and transformative building processes can contribute to first-world settlement initiatives, ameliorating the impact of climate change, natural disasters and extreme weather events.

Such communities will require a framework for more responsive, affordable, flexible and sustainable forms and agile and adaptive approaches to urbanisation in potentially unstable environments.

A transformative and migratory paradigm of discrete, small-scale functional components in a range of different arrays suggests a sustainable 'kitset' urbanism relevant to the 21st century.