Reimagining of the Brook Valley: The making and remaking of land.

I am interested in how we use the land and how this has changed over time, undoing what was done, returning or regenerating what was lost because of a previous generation's needs to survive or thrive. This project seeks to make sense of the settlers' need to strip the land to its bare bones and then compare this to what the land is being used for today.
I have used the Brook Valley as a location to explore this concept due its importance to Nelson residents as the location of the initial town water source, the first railway in Aotearoa New Zealand, a source of coal, a weaver's mill, a provider of produce amongst many other functions.
The Brook Valley is now a thriving suburb, a gateway for recreation and significantly a native wildlife and plant sanctuary with remnants of original forest and beautiful stream, a place of parks, walks and community gardens. The concrete channel represents a significant barrier to migrating fish yet enabled housing needs and the security of that housing. The pine plantations are being slowly converted back to natives supported by community trapping groups and residents who trap and hunt their own blocks.
The Brook Valley is an example of mistakes made, regeneration in progress and protections established that can be built upon to enhance Nelson's environment.

At the Port where I work there are images of the Port's developments over time in one of the meeting rooms, a fascinating pictorial history. Looking at these images I am always amazed at the bare hills in the background.

Figure 1: Image courtesy of Port Nelson Limited archives

The Challenge
For me to understand the approach taken to colonising Aotearoa New Zealand I read a book called 'Making a new land: Environmental histories of New Zealand' (2013) Edited by Eric Pawson and Tom Brooking and also 'The invasion of New Zealand by people, plants and animals' (1949) by Andrew Clark. I have summarized what I learnt from these books below.

Aotearoa New Zealand being cloaked in forest and swamp was a challenge to the aspirations of agriculturalists. The forest, rainfall and humidity contribute to the soil being quite poor, acidic and missing essential minerals making agriculture difficult. Whilst subsisting in the native ecosystem, as Christensen (2013 E. Pawson & T. Brooking (Eds.)) explains, would be immensely challenging for new arrivals, as the eco system had developed around birds, offering little in the way of sustenance for people (p.310).
The early settlers and developers saw the forest as threatening, dark, dank and full of malice, no doubt it presented a formidable barrier to traveling, with the dense undergrowth that must have existed prior to angulates being introduced. They also brought with them an attitude towards the land of absolute control where the concept of the garden of Eden had been interpreted into a landscape that was garden like. Where land was not productive in their own definition, then it was being wasted. Swamp land never stood a chance being even more evil due to the presence of stagnant water and rotting material.
Clark (1949) explains the site for Nelson was hastily chosen while a boat of settlers awaited in the Strait, it was done so in the knowledge it was unsuitable, and the earliest settlers being mostly labouring class were completely unprepared for agricultural life (pp.83-84). Clark (1949) describes the flatter areas of the Nelson site as covered in flax and fern with the fern covered land being easier to clear but less fertile, the early settlers struggled to grow wheat and potatoes, whilst the flax being harder to clear, then needing draining before any benefit could be made of these more fertile areas (p. 86). Clark goes on to say "Today, after a century of experiment, the hills around Nelson are used only for rough grazing" (Clark, 1949, p.86).
Towns were seen as a symbol of triumph over nature, but the placement and growth of the towns put more people at risk of natural weather events. "Between 1920 and 1953, 64 percent of the 136 places with more than 1000 people listed in the 1956 Census experienced one or more floods" (Pawson, 2013, p.232, E. Pawson & T. Brooking (Eds.)) This period saw many rivers and streams controlled through canalisation to allow for development in both farming and urban places. Pawson (2013 Ed E. Pawson & T. Brooking) explains the unfortunate result being the perception of these manmade interventions making the area safe from further flooding events and increased investment in these areas (p. 231).

The fight for preservation of native forest began early with island reserves being established in the 1890s by some far sighted people seeing how the destruction of ecosystems was already impacting the native bird populations. The 1850's had already seen a shortage of wood in some parts of the country. In the need to clear land, much valuable timber was burnt, everything was made from wood and wood was always needed for heating. Burnt land was sown in grass for pasture and sheep bought in, proving an easier way of making something of the land than horticulture. The value of native forest was hotly debated on many occasions by politicians from the late 1800's onwards. There eventually came an understanding of the need to preserve areas of land in the form of the New Zealand Forests Act of 1874 which created state forests to protect rivers, streams and climate but frequently these forests were felled and burnt, seen as purely a resource for settlers and later on much of this land was unprotected and used for settlement. Wynn (2013 Ed E. Pawson & T. Brooking) describes the challenges the Nelson settlers faced as a sleepy hollow because it was surrounded by forest compared to the industrious Christchurch surrounded by grass covered plains (p.137).
Whilst it was fought against, the act did initiate the formation of the national parks we have today along with the foresight of a small group of wealthy settlers freed from the need to subsist from the land.

New Zealand children were initially taught about English plants and birds, settlers gardens and towns had been stripped of native plants and replaced with plants from England with Botanical Gardens used for introducing exotic plants being established in many towns. The exotic species appearing to dominate and further suppress native species. Plants were brought in from many other countries, a significant number coming from Asia and in particular China. The exotic plants reflecting the origin of settlers and their associated colonies and trade routes of the day. The introduction of known edible plants was an important food source in a country where the native plants were unknown in their usefulness (Beattie, 2013, Ed E. Pawson & T. Brooking, p.245). The Chinese that settled in Aotearoa New Zealand were frequently accomplished gardens, significantly providing produce to the communities in which they lived and introducing many varieties of vegetables and plants to New Zealand.

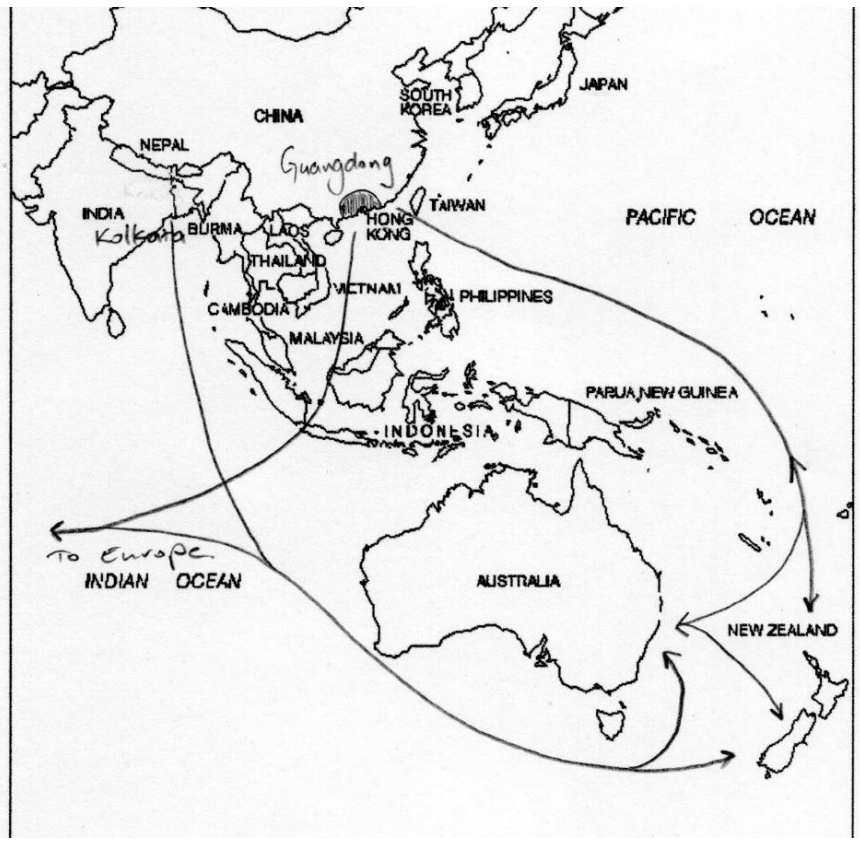

Figure 2: Plant movements to New Zealand. Source based on James Beattie, 'The empire of the rhododendron', E. Pawson & T. Brooking (Eds), 2013, pp. 242-250.

Outcome

I have greater appreciation for the barriers to establishing a self-supporting community when European settlers arrived in Aotearoa New Zealand, and especially the challenges faced by the Māori who over time had been able to adapt to the native ecosystem. Seeing the native landscape through the eyes of a settler from a highly modified landscape Aotearoa New Zealand must have been incomprehensible and the fight to survive required immense fortitude. The colonial approach was highly informed by perspectives of land drawn from interpretations of the bible, the narrow perceptions of productive land with little appreciation or understanding of how the Māori had been able to make sense of the environment.

I can only imagine the desperation the early settlers felt in arriving here with promises of resources and wealth for the making, only to find themselves destitute and without any ability to be able to sustain themselves from a land where they had no familiarity with the flora and fauna. They had to set about making it make sense, constructing places where they could have some control over their destination.

Some of the decisions can't be easily undone and remain in place as an example of what not to do, and hopefully informing future decisions. There is much work being invested by communities and agencies in transforming landscapes using native plants to utilize the benefits, now understood, to be provided by native ecosystems, to make our towns and modified landscapes safer, healthier, more resilient to natural events and climate change.