



TASTING THE LANDSCAPE

53rd IFLA
WORLD CONGRESS
APRIL • 20th 21st 22nd •
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Pecha Kucha

Resilient Landscape Infrastructures: Improving Landscape Identity through New Zealand's Natural Heritage

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Problem statement

Natural systems throughout New Zealand that remain unharmed are in decline. This started in early European settlement with the introduction of new resources and a mind-set driven by economy. Pre-European New Zealand was a land of bog, marsh, and peatlands, resulting in the majority of the land cover being a large scale wetland. Over the past century '90% of these wetlands have been destroyed or significantly modified through draining and other anthropogenic activities' (Harmsworth, 2002) resulting in the degradation and mass loss of significant landscapes. Government acts that date back to 1908 show the authorisation for large covers of wetlands to be 'drained, burnt and ploughed' in order to become land for farming and built development.

This study explores Lake Wairarapa as the third largest lake in the North Island and once held some of New Zealand's most significant wetland systems. The lake in its historic state reached 210km² and today reaches a surface area of 78km². This sufficient drop in area was a loss to farming in both agriculture and horticulture, which have also now become the primary sources of pollution, adding to the decline in quality of the lake. It has been due to the addition of infrastructure such as stop banks, drains, and constant pumping stations that have allowed clearance for productive pasture.

The region is home to two Māori tribes, Kahungunu ki Wairarapa and Rangitane o Wairarapa. The people were put into a difficult position during settlement wars, and as a result the tribes gifted the lake to the crown. The lake and the surrounding land provided for the people through means of transport, food, medicine, material and also held deep spiritual connections.

This paper explores how traditional healing concepts practiced by Māori might be used to aid landscape architecture in a way where one can start to heal the land and find more resilient alternatives to the heavily engineered infrastructural solutions and by doing so heal the people.

South Wairarapa

Lake Wairarapa sits beneath the Ruamahanga Ranges. Currently the lake is around 2.5m at its deepest point and stretches to 78km². There are two main water sources that fuel the lake and these are the Ruamahanga and Tuaherenuikau Rivers.

Due to the development of the lower Wairarapa valley scheme and the introduction of a river diversion, much of the lake and surrounding wetlands have been drained or modified and areas of water have been diverted to allow for a more controlled and managed environment.

Public infrastructure has disturbed ecological tendencies occurring pre 1950's but has contributed to reduce the impact of flooding in the area. The implementation of a 4.2km long and 500m wide river diversion in the Ruamahanga River in a form of a channel has enhanced productivity through agriculture and horticulture but deeply damaged the wider ecosystem. However, on the last 60 years the region has suffered a loss in education and well-being, and water quality has decreased as well as the aesthetic value of the water ways has depleted. As a consequence of this, people tend not to respect the presence and life of the water ways and what they can provide as a natural system and as a mean of recreation, food, medicine, transport and so forth.

Healing the landscape

Over the years, through European colonisation, there have been arguments around an increasing decline in the awareness of cultural landscapes and traditional Māori methods. The use of chemicals, technology and modification has taken its toll on natural practices. This not only affected the land, but also the people.

The idea of 'healing' is understood as a method primarily applied to a person, however this same method can be adapted it to the land, "the land should be our first patient" (McGowan, 2009). Rongoā is the traditional Māori method practiced by *tohunga* (expert, healer), it is a way of living due to the weaving of nature, *wairua* (spirit) and people to form a realm of well-being.

Rongoā Māori can be an important tool for restoration by incorporating the deeper meanings of cultural values and methods to re-connect and re-develop a way of designing for the land and people. "Restoration not only of the environment but of the people" (McGowan, 2009).

Design strategies

Using concepts of Rongoā and weaving them through principals of landscape architecture will open up a series of design iterations that will lead to a more sustainable approach. Un-doing the standard linear approach and taking into consideration the sites location amongst productive agriculture land use there will need to be beneficial economic growth for the surrounding parties as well as for the Wairarapa region in order to provide a viable outcome. These typologies (Table 1) will surround uses of water and storage, material production and restoration and food production and restoration.

Conclusion

This research has processed and developed an approach to which cultural concepts can aid landscape architecture and develop methods to further provide connections, experience and engagement to the public. This allows the infrastructure to become one with natural systems to create a more sustainable environment that provides ecological benefits as well as economic benefits. The study also allows the design movement to become more fluid with the landscape, moving away from the functions of the linear.



1. Three design proposals for the selected sites along the lake's shore and river diversion. These design solutions bring together the concepts of Rongoā as well as water and storage, material production and restoration, food production and recreation. Author: Ashleigh Hunter