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Mō tātou, ā, mō nga uri ā muri ake nei  
(For us, and our children after us)
MĀORI WORLDVIEW

MĀORI CREATION NARRATIVE

To understand what is mahi-nga kai, let’s start from Māori creation legends as ancestry is an very important part of Māori culture.

MAHI-NGA KAI

Work the food

The knowledge and value of customary food and resources gathering places and practices
Traditionally, mahinga kai means work the food, referring to the food gathering places and practice. According to Matapopore urban design guidelines compiled by Māori, mahinga kai “encompasses:

- the places where natural resources were obtained
- the resources themselves
- the practices and principles that guided how those resources were harvested and managed

Moreover, in Māori practice, such natural resources were not only used to be eaten, they are also meant to be used to make tools to gather the food, make clothing and sandals for long-distance travel, medicines for treating purposes, and even make as local gifts to extend hospitality and friendly communications.

In the following sections, I will explain few of the taonga (treasure) species in Māori mahinga kai practice that are irreplaceable.

### MAHINGA KAI

As Traditional Food Practice

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**Tuna**

Tuna has been an important food source for Māori for a long time. It also exist in the legends as gods because it can live up to 100 years old. Sometimes tuna are used by some iwi as environmental health indicator for waterways because sediments can trap in its fin, making it hard to breathe.

**CATCHING TUNA**

“Nga taonga tuku iho – te tuna;
The eel – An ancient gift from the gods” - Joseph Potangaroa

“If there is no tuna, there will be no languages resounding in the house (in the eel gathering places), and there will be no people on the land.” - Ngai Tahu

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**Longfin eel (Anguilla dieffenbachii)**

**Shortfin eel (Anguilla australis)**
Inanga | Whitebait

“The most common whitebait” - DOC

FOOD

Inanga is traditionally cooked as fritter in Hāngi as one of the most delicious food. Such practice continued through today.

Harvesting

Catching Inanga using Tapora (Inanga baskets)

Image credit to What’s the story | DOC

IMPORTANT ROLE IN ECOSYSTEM

Spring Tide
Eggs leave on land

Pāua | Abalone

Harakeke as whānau (family) - Te Ara

Seasonal Māitaitai (shellfish gathering) is an essential part of Māori life since they arrived in New Zealand, as kaimoana (seafood) is the main source of food.

PĀUA AS KAI

Harvesting usually conducted based on regulations. Rāhui (ban) sometimes are placed as sustainable practice to allow regeneration.

PĀUA SHELL USAGE

PĀ KAHAWAI | FISHING LURE

JEWELLERY

CARVING

Used as eyes in Māori carving, symbolizing ocean as the source of knowledge

Haliotis iris

PĀUA SHELL

PĀUA SHELL USAGE

PĀ KAHAWAI | FISHING LURE

JEWELLERY

CARVING

Used as eyes in Māori carving, symbolizing ocean as the source of knowledge
Harakeke | New Zealand flax

Harakeke as whānau (family) - Te Ara

KORĀRI | FLOWER STALK
- Sweet nectar edible
- Used to make Mākihi | Buoyant Craft for inland fast river use

FLAX ROOT
- Juice used as disinfectant
- Blood purifier and treat abscesses and ulcers

Harakeke as whānau (family) - Te Ara

MUKA | FIBER

Flax root
- Edible, but tasteless
- Used as laxative

HARVESTING - TŪPUNA OUTER GRANDPARENTS AND ANCESTORS LEAVES

As one of the most common and essential plant in New Zealand, harakeke is used widely as weaving plant for its endurance and flexibility.
Ti Kōuka | Cabbage Tree

"Most recognizable native tree
Most reliable vegetation food source" - Rob Tipa

Ti Kōuka is special to Māori as it’s hardy enough to survive fire, wind, and severe weather, which is often recognized as the place marker.

LEAVES & FIBER

Used to make
- baskets
- kawe | packs
- rain capes
- paraerae | sandals for long journeys

KOATA | CLUSTER OF UNDEVELOPED LEAVES

- eaten as food
- used as in medical way to cleanse the blood

Cordyline australis

FLOWER + FRUIT

Attract korimako (bellbird) and kererū (wood pigeon)

KĀURU | TAPERED TAPROOT

Rich in fructose (sweet crystallized sugar)

Kiekie

"The sweetest fruit in the forest" - Robert Vennell

Fibrecinetia banksii

TĀWHARA | FLOWER BRACCTS + UREURE | FRUIT

- Both edible
- Highly prized as abundant food resource on land

HARVESTING - LEAVES & FRUITS

FIBER

Kete | Gifting basket

Whāriki | Welcoming mat

Tukutuku | House Panel

"Most recognizable native tree
Most reliable vegetation food source" - Rob Tipa

Attract korimako (bellbird) and kererū (wood pigeon)

Used to make
- baskets
- kawe | packs
- rain capes
- paraerae | sandals for long journeys

Rich in fructose (sweet crystallized sugar)
Māori as tangata whenua (people of the land) in Aotearoa (New Zealand), has lost most control of their land since European colonization. Even though in 1840, the Treaty of Waitangi signed between British crown and Māori chiefs established the foundation of full governance of land and resources to Māori, it was never fully achieved. Nonetheless, New Zealand today has begun to incorporate Māori language and culture into daily practice, especially in landscape design, where the culture could have the greatest manifestation and significance.

- community engagement
- Ngai Tahu matapopore urban design guide

MAHINGA KAI

In Landscape Design

I. RE-ESTABLISH CULTURAL SIGNIFICANCE FOR MĀORI

- community engagement
- Ngai Tahu matapopore urban design guide

MĀORI

Tangata Whenua
People of the Land

CONCEPTS RELATING TO MAHINGA KAI OVER TIME

Whakapapa (Genealogy)
Identity and Connection to place

Mana
Spiritual power

Māori highly value whakapapa ancestry connection to everything in the landscape and themselves that derived from atua (god) thousands of years ago

CONCEPTUALIZATION OF MAHINGA KAI

WHAKAPAPA (GENEALOGY)

Identity and Connection to place

Mana
Spiritual power

Māori highly value whakapapa ancestry connection to everything in the landscape and themselves that derived from atua (god) thousands of years ago

1320 - 1350
Māori arrived in Aotearoa on waka
Established different iwi (tribes)

15TH CENTURY
European Colonization
Deprived Māori of their rights

1840
Treaty of Waitangi was signed
Māori regain governance of land

1840
Treaty of Waitangi was signed
Māori regain governance of land

1987
Māori language was made official
Gradually restoring Māori identity

TODAY
Rebuild relationship between nature and human

Figure 6. An adaptation of Prominence’s diagram for expressing a relational understanding of nature and people derived from a concept of Mahinga Kai and its diverse concepts, practices, values and more (2014)

Diagram credit to Woody Lee

Extracted from thesis Weaving Mahinga Kai and Landscape Architecture: Design with Nature through People-ecology Interactions
In Landscape Design

II. RESTORE THE NATURAL ENVIRONMENT (TE TAIAO)

ki uta, ki tai / From mountain to sea

Matai
Black pine
Hīnau
Kahikatea
White pine
Horoeka
Lancewood
Tōtara
Coast
Freshwater Wetland
Kahikatea Forest
Dry Woodland
Grassland/Shrubland

Photo taken by author in Christchurch Botanic Gardens Visitor Center
Located at the confluence of Totara creek and Sakaria creek, Kopupaka reserve was originally a left over space that were later designated to become a park.

- Restore stream habitat: Totara creek and Sakaria creek convergence, where eels come in

**MAHINGA KAI**  As Design Elements

**CASE STUDY | KOPUPAKA RESERVE**

LOCATION: Massey, Auckland

DESIGN: Isthmus

"Gather and weave" - Isthmus

**CONCEPT DEVELOPMENT**

The main concept

**ECOLOGICAL RESTORATION**

The main concept
**MAHINGA KAI**  As Design Principles

CASE STUDY | ŌTĀKARO AVON PRECINCT

- restoration of stream and river banks
- incorporation of maori values

**LOCATION:** Christchurch
**DESIGN:** Landlab, Boffa Miskel, EOS Ecology

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**TIMELINE OF AVON RIVER**

**WETLAND & KAHIKATEA FOREST**  **URBANIZATION**

**OPPORTUNITY FOR REGENERATION**

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**“HEALTHY RIVERS = HEALTHY PEOPLE” - EOS ECOLOGY**

- Rubble under water
- Native birds
- Terrace steps
- Freshwater species

**RUBBLE UNDER WATER**
- To increase water speed and wash off sediments
- Create shelter for small freshwater fish
- Create potential spawning area

**TERRACE STEPS**
- Create shelter for eels
- Increase human interaction with river

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**FRESHWATER SPECIES IN ŌTĀKARO AVON RIVER**

- Bellbird
- Kereru
- Tuī
- New Zealand pigeon

---

**CASE STUDY | ŌTĀKARO AVON PRECINCT**

- River bank restoration with native species
- Incorporation of maori values
- Restoration of stream and river banks

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**DESIGN:** Landlab, Boffa Miskel, EOS Ecology

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**“HEALTHY RIVERS = HEALTHY PEOPLE” - EOS ECOLOGY**

- To increase water speed and wash off sediments
- Create shelter for small freshwater fish
- Create potential spawning area
MAHINGA KAI  As Design Narrative
CASE STUDY | ŌTĀKARO AVON REGENERATION PLAN

Earthquake & Disruption
Future Regeneration
Ko te whenua
Ko te tāngata
He kāwai kotahi

The land
and the people
are woven together as one