

This great museum features displays centred on the magnificent **KAURI TREE**, its **TIMBER** and its **GUM**, as well as early **PIONEERS IN NEW ZEALAND**.

This sheet provides more information about the displays.

- **THE MAGNIFICENT KAURI TREE**

The kauri tree, *Agathis australis*, is New Zealand's largest and most famous native tree. It is a type of conifer or pine tree which grows in the subtropical northern part of the North Island.

Kauri forest has a characteristic dense luxuriant undergrowth with under storeys of small trees, shrubs, ferns, mosses, lichens, epiphytes and lianes. Associated podocarps are rimu, miro, totara, toatoa and tanekaha. Associated hardwoods are tawa and taraire.

Ancestors of the kauri first appeared in the Jurassic Period 190 - 135 million years ago. The kauri - podocarp - hardwood forests are among the most ancient in the world.

The largest kauri in existence is Tane Mahuta (Maori for "Lord of the Forest"). It is 4.4 metres in diameter and 17.7 metres to the first branch. The museum has displays showing even larger trees which were growing in the past.

As a young tree the kauri has a narrow conical shape with branches along the length of the trunk. As it gains height the lower branches are shed. Eventually the top branches develop into a massive spreading crown which stands out above the other trees and dominates the forest. The trunk steadily grows outwards and forms a huge column with no branches. The bark is shed in thick flakes of varying size. This helps to keep the tree free of epiphytes.

Reproduction is with male and female cones on the same tree. Fertilization of seeds can occur with pollen from the same or different trees. The female cones take two years to mature. Winged seeds are dispersed by the wind when cones disintegrate.

The oldest tree, Te Matua Ngahere ("Father of the Forest") in Waipoua Forest, is estimated to be 2000 years old. Larger trees from the past were much older.

Family : Araucariaceae (evergreen trees found only in the Southern Hemisphere)
Genus : *Agathis* (20 species of very large trees found in the southwest Pacific)
Species : *australis* (the only species in New Zealand)

- **KAURI TIMBER**

Wood from kauri trees is one of the world's great timbers. Long wide planks of faultless, superb timber were cut from the mighty trunks.

The timber was used for many purposes: ship building (including masts and spars of sailing ships), houses, furniture, bridges, fences, dams, patterns (used for metal casting), vats and tanks, barrels, large rollers (in the textile industry), railway sleepers, mine-props, carving, wood turning etc.

The trunk yields flawless straight grained timber which is of enormous use as a structural, functional timber. It is easy to work, easy to dry, very stable, durable and strong. The head and stump provide outstanding figured kauri with an exceptionally beautiful grain. This was used as a feature timber for wall panelling, furniture and ornaments.

A few trees had a magnificent mottled appearance to the grain which was highly valued for its striking beauty.

For the technically minded: at 12 percent moisture content the density of kauri is 560 kg/m³; the modulus of rupture is 88 MPa; the modulus of elasticity 9.1 GPa. When drying from green to 12 percent moisture content, tangential shrinkage is 4.1 percent and radial shrinkage is 2.3 percent.

Swamp kauri refers to kauri timber which has been recovered from under the ground. It comes from forests which were buried by natural cataclysmic events long ago. Carbon dating has indicated that logs were buried up to 50,000 years ago. Leaves and cones are often preserved with the logs but these quickly deteriorate when exposed to the air.

The quality of the timber from swamp logs is variable. Much of it is comparable to new kauri but it lacks the same high quality. The appearance however, has been enhanced. Natural stains have produced rich dark brown and greenish hues which emphasize the beautiful figure in the grain.

Older kauri is on display in the museum. We have 30 million year old Australian kauri from the Yallourn coalfield in Victoria. It is fantastic that this kauri has resisted the forces of change over such a long time and still exists as wood.

• KAURI GUM

Kauri gum is a resin which bleeds from the tree. If the bark is damaged, or a branch is broken by the wind, the resin bleeds out and seals the wound. This prevents rot or water getting into the tree.

It can build up into a lump which goes hard. As the tree grows the bark is continually shed. The gum is forced off and falls onto the ground around the tree. This had been happening for millions of years before mankind started to use it. There were vast quantities of gum in the ground.

Amber is fossil resin from different trees throughout the world. We have kauri gum in coal dated 43 million years old. Kauri gum is New Zealand amber.

Kauri gum was collected from the ground by picking up the exposed pieces on the surface. As this disappeared gumdiggers probed in the ground with gum spears to find the gum, then dug it up with spades. Gum washing machines were also used. Earth containing gum was shovelled into a tub and the gum was separated out using water.

Trees were also a source of gum. Collectors would chip pieces of old hard gum from the branches and heads of trees where it had collected for many years. They also cut the trees to bleed fresh gum. This was collected later after it had developed into a hard lump. These hardy pioneers used spikes in the toes of their boots and hand held spikes to climb the trees.

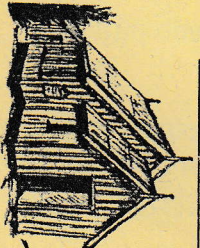
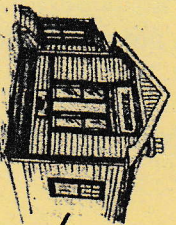
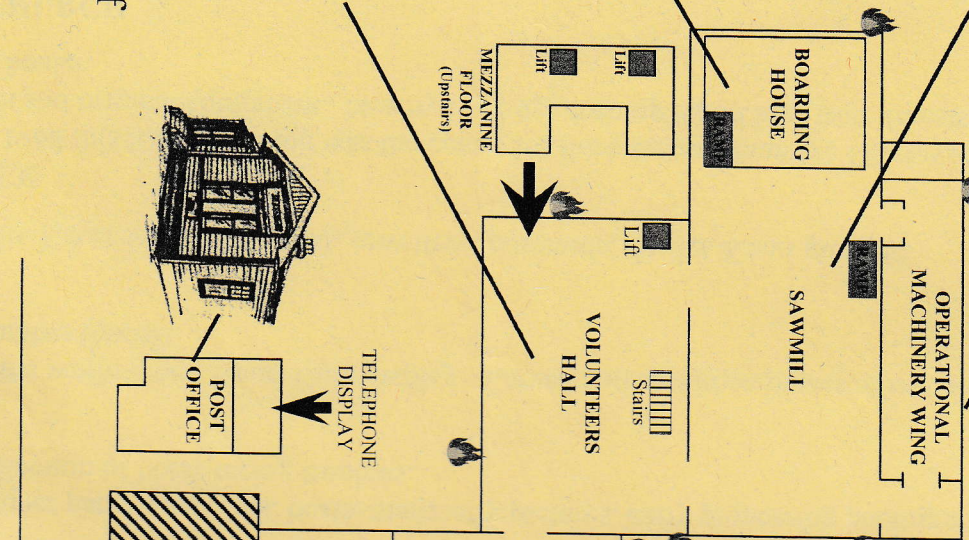
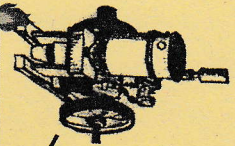
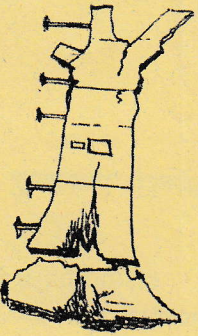
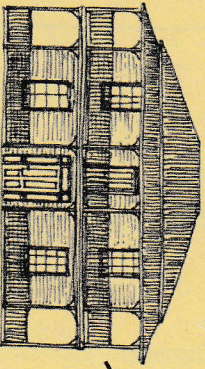
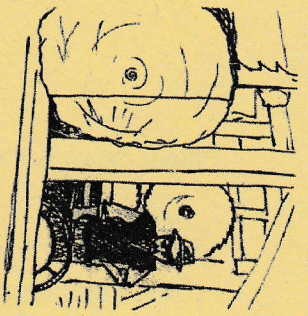
Kauri gum was used by the Maori people for cooking and lighting because it burns very easily. They made torches with it to attract fish at night. It was also used as a pigment to make the dark colour in tattoos, and as a chewing gum.

Europeans used kauri gum to make a very high quality varnish. Other commercial uses were in paints, linoleum floor coverings, denture moulding material, testing petroleum products, sealing waxes, candles, marine glues and fire lighters.

Exquisite specimen pieces of kauri gum were carved and polished. These collectors' items were highly sought after and quite valuable. The museum gum display is the biggest and most beautiful exhibition of gum in the world.

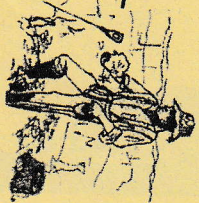
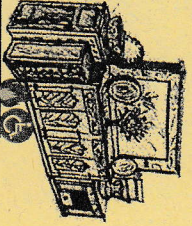
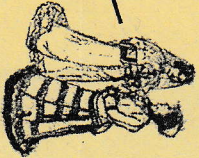
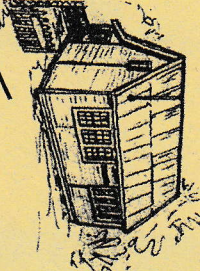
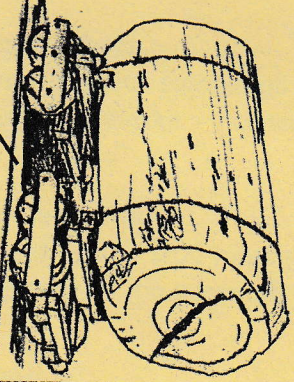
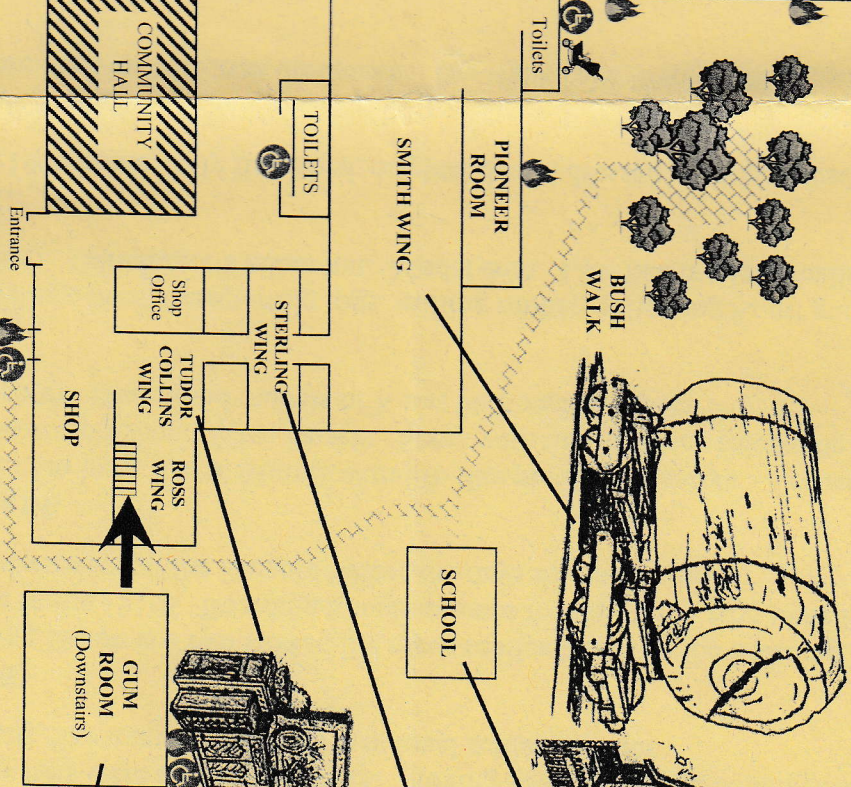
A GUIDE MAP TO THE KAURI MUSEUM

Real New Zealand Heritage



CHURCH ROAD

MAIN ENTRANCE AND EXIT



MUSEUM SHOP

The largest selection of Kauri products in New Zealand.

A huge range of New Zealand giftware.

All major credit cards accepted.

Key

- Wheelchair access
- Fire door - In case of an emergency please exit via the nearest fire door
- Ramp access
- Lifts to Mezzanine floors & Boarding House top floor
- Baby changing facilities

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SAWMILL

A real mill shows how logs were sawn into timber. Moving saws, flat belts, countershafts, pulleys and steam engines. Life-like mannequins represent local settler families.

BOARDING HOUSE

The Otamatea Boarding House is a two storied life sized replica based on the boarding houses of the old Otamatea districts (circa 1910). Boarding houses catered for the public who travelled on horseback or on the waterways of the Kaipara before the days of road or rail.

VOLUNTEERS HALL

Massive Kauri slab 22.5m long. Great Murals with life-like pioneering scenes. Governor General's boardroom table. Wood workshop. Wine barrels. Stairs with turned Kauri balustrade to mezzanine floor. Scow log transport. Photos and models of Kauri built racing yachts.

SMITH WING

Real equipment for felling trees, transporting logs, milling timber, collecting Kauri gum. Blacksmith's workshop. Gumdigger's nikau hut. Model dam. Life-like models, realistic scenes.

STERLING WING

A quality six room c1900 home, fully furnished, original décor, dressed models, a fascinating insight.

TUDOR COLLINS WING

Ornate Kauri furniture built by Victorian craftsmen. The walls have lovely timber panels.

ROSS WING

Magnificent timber panels, carvings, busts, marquetry pictures, early pioneering photographs, and an outstanding collection of horse racing trophies.

GUM ROOM

Downstairs to the world's best Kauri Gum display. Carved and specimen pieces of recently formed New Zealand amber (copal).

SHOP

Beautiful quality Kauri souvenirs, books, jewellery, postcards, clocks, Kauri gum etc.

POST OFFICE

From 1909 to 1988 this Kauri building was the centre for the local community. Displays feature dressed models and original equipment. Nearby is a huge Swamp Kauri log (from forests long ago) and steam log hauler.

PIONEER CHURCH

Built in 1867, this original church served as a school, community building and non-denominational church used mainly by Anglicans and Methodists.

ORIGINAL SCHOOL

A glimpse of early education in New Zealand. Used 1878-1972. Complete with desks, pens, maps, books etc.