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Kia ora, gday and welcome to the History of Aotearoa New Zealand, Episode 25: Industry of Flax. This podcast is supported by our amazing Patrons. If you want to support HANZ go to [patreon.com/historyaotearoa](https://patreon.com/historyaotearoa). Last time, we talked about the various items Maori were making using the technique of weaving with a bit of a focus on the kakahu, cloak, an iconic piece of Maori attire. This time we are going to follow a bit of a neat thread I found while researching this topic. It sits slightly outside the scope of these weaving episodes but I thought it would be fun for a bit of variety and at least give you a small glimpse into the kinda place Aotearoa would become. We will still be talking about harakeke but we will look at the industry that formed from it after the arrival of Europeans to its eventual collapse in the late 20<sup>th</sup> century.

So, lets jump forward from our time when Europeans and Maori never knew the other existed to a time when European contact was fairly regular, we're talking late 18<sup>th</sup> early, 19<sup>th</sup> centuries, where muka is a valuable trade item for both cultures. For Europeans, the fibre is able to be used to replace damaged ropes on their ships, which in this era are the big sailing ships powered by canvas and the wind, which rope was an integral part of maintaining and operating the vessel. For Maori, trading something that Europeans wanted meant they had access to the technological advancements that they brought with them. It just so happened that the technology Maori were interested in receiving for their fibre was guns, lots of guns. Specifically, the musket which would cause all sorts of problems and lead to the quite simply named Musket Wars, but that is a story for another day.

Initially the main market was the sealers and whalers that began to frequent Aotearoa after its second discovery however they also attempted to imitate the techniques that Maori used to produce muka from the flax leaf with the intention of exporting it. Their attempts were unsuccessful as they didn't really know what they were doing and often damaged the fibre and eventually the reputation of its quality when trying to sell it. It actually wouldn't be until the 20<sup>th</sup> century until proper quality controls came in to ensure no one was making crap product. By the 1820s and 30s flax was being exported in larger and larger quantities to Australia and Britain as well as being used by the new settlers for clothing, rope, sails and sacking, that is sacks for like potatoes and stuff, not like sacking a town. Low quality flax was also being sent to Britain during the 1830s to make paper that could last over 150 years. We know this cause that very information was written on a piece of flax paper. Although it was a bit nasty to look at being yellow-brown in colour and very coarse, its durability was quickly noted and the paper was actually deemed suitable for making paper bank notes in 1865 but the Reserve Bank rejected the idea. Which I think is a bit of a shame, maybe it should make a comeback!

Although this fairly amenable trading continued up until the 1850s there was evidence to suggest that Maori were sometimes a bit reluctant to trade and were difficult to negotiate with when it came to pricing. This has been put down to other evidence that suggest that Maori were expected to provide cheap labour and free information on how to process harakeke, something that they didn't seem too keen on sharing with their new neighbours. The flax trade also declined a fair amount post-1840, when the Treaty of Waitangi was signed which would be a spark for a series of conflicts known as the New Zealand Wars or Land Wars, naturally causing everyone to be a bit less focussed on trade. In saying that though, some historians suggest that trade declined for more complicated economic reasons, which I don't really understand so I won't go into, and that the Wars sparked the move to mechanisation, which would define the industry until it's demise over a

hundred years later. In fact, Lt. Governor King upon seeing Tuki and Huru try teach flax to prisoners, realised that the process would need to become mechanised if it was ever to get off the ground as a viable industry, and that was way back in 1793. It wouldn't be until the 1860s when flax stripping machines would be designed and begin production.

These machines could produce 250kgs of muka fibre a day which in and of itself is just an insane amount but it's made even more mad when you compare it to the amount that could be done by hand in the same amount of time, which was 1kg. By 1910, so about 50 years later, improvements to the machines and processes made this number quadruple to 1.27 tonnes, which is just a staggering amount! The machines were used in what was known as flax mills, mostly located in Manawatu, the region where modern Palmerston North is, but they were located all across the country from Northland to Southland (aren't we just great at naming stuff?). In 1870 there were 161 mills operational in New Zealand totalling about 1,700 workers, which increased to 3,000 by 1890.

Before we talk more about the industry we should probably talk about how the new machine process of extracting fibre from harakeke worked. Despite the increase in production capacity and the ability to not have to do everything by hand, flax milling was still no mean feat. Most flax mills were built next to swamps where flax tended to thrive and about 20-50 workers would go out into the swamp and cut flax, tying them into bundles, to be brought back to the mill. These 'flaxies', as they were known, were often Maori contactors and a skilled flaxie could cut 3 tonnes of flax a day, with 8-9 tonnes of flax leaf required to make 1 tonne of fibre. Once the leaves were brought back they were fed through the stripping machine, which made a loud shrieking noise, although, this wasn't the worst part. That was likely held but the bloke who had to sit under the machine catching the slimy fibre coming out of the machine and bunch it up. Now, this isn't the worst part because it was a crap job, although it probably was. No, this is the worst part because the spot where the guy sat to catch the slimy stuff was called a 'glory hole' and I am not making that up, I really wish I was! Parents, I am sorry for making you have to explain that to your kids. Anyway, lets move on... The fibre that had been bunched up was then washed, dried and then bleached in a paddock for 10 days. After being taken out of the paddock, the fibre was run through a scutching machine, which would take off more material and remove water, refining it further so it could be packed into bales for local delivery or export overseas. A much more straightforward process than doing it by hand but still just as gruelling and probably a lot louder than the hand method perfected by Maori. With these tough working conditions came unions and a few famous Kiwis came out of these unions, the one you are most likely familiar with is Michael Joseph Savage, the head of the first Labour party government and New Zealand's Prime Minister from 1935-1940, upon his death in office.

Between 1901 and 1918, 5% of the principal exports in New Zealand was flax, which naturally made it a sizable chunk of the economy. This did fluctuate though depending on the conditions in the outside world, for example wars tended to increase the need for flax, such as during the Spanish-American War which decreased the availability of manila (a type of fibre also used for ropes) as well as unrest in Mexico decreasing the availability of sisal, another fibrous plant for ropes, not to mention the First World War. Which by the way, is when many of these flax mills were operated by those not fit for battle, that is older men and teenage boys. By the 1920s though, this booming industry was in decline. A little before this time, flax plants were being infected with Yellow Leaf Disease, a bacteria-caused insect-borne disease which cause problems such as stunted growth and premature flowering. There were many attempts and strategies to curb the growing epidemic such as flooding plantations, different cutting techniques or growing resistant varieties but they were met with mixed results. With the onslaught of the Great Depression, the New Zealand flax industry was sent into a death spiral.

Part of what made the industry difficult to recover from a hit like that was the fact it never really grew beyond small, family owned mills into a large scale industry that could take a share of the global market. A global market, I might add, that was saturated and had fibres circulating that everyone was more familiar with. One such flax mill was the Templeton Flax Mill, which originally opened in 1943 and closed in 1972 and has been owned by the same family right up until the present day. The reason I mention this mill in particular is twofold. Firstly, cause it's near Riverton, which is in my home province of Southland but secondly and more importantly, it is now known as the Templeton Flax Mill Museum, the only flax mill museum in the country. Due to this and it's preservation of the original machines, the museum was granted category one status by the New Zealand Historic Places Trust, now called Heritage New Zealand, which is a Crown entity funded by Te Manatu Taonga, the Ministry for Culture and Heritage, who basically ensure the survival of New Zealand's historic buildings. The best thing about the Templeton museum is that not only can you learn about how the machines work, you can see how the machines work! The museum actually still produces harakeke fibre which are bought by weavers as well as overseas film companies. There was even a Taranaki vintage car restorer that used the off cuts for upholstery! Adding to the problem of these family owned enterprises was that they sold to middle men who then sold the fibre to overseas merchants, cutting into their margins. Even worse still, the product they were exporting was the raw fibre meaning the actual manufacturing process into finished products was occurring in other countries, giving them the benefit of the most economically valuable part of the entire supply chain.

Despite these issues and their resulting death spiral, the flax industry lasted another half century, so that begs the question of what kept it going. Well, it was mostly saved by government intervention resulting in a switch in focus. In 1934, New Zealand Wool Pack and Textiles Limited was formed, which was subsidised by the government. The idea behind this was to keep the industry afloat by transitioning from a focus on export of raw fibre to the manufacture and domestic sale of primarily wool packs, which are basically big sacks farmers put wool into. Other items were also manufactured such as underfelt, baler twine, floor coverings, upholstery and others. This was also combined with restriction on imports from overseas woolpacks and continued experimentation with different flax varieties. Some plantations in Whanganui and Taranaki may have existed to try and perform selective breeding to improve quality and yield though it was apparently too much work and the swamp method of clearing out weeds and draining seemed to be preferable. The restrictions and subsidies continued into WW2 and beyond, helping keep the industry afloat until 1972, the same year the Templeton Flax Mill closed. The restrictions were lifted and the subsidies ceased with wool pack production ceasing with them. This was attributed to customers in Japan complaining that the fibre of the wool packs contaminated the wool when it was shipped to them. Despite this, the industry still lived on producing other products but in 1973, New Zealand Wool Pack and Textiles Limited was taken over by Stevens-Bremner, a major carpet producer. Stevens-Bremner phased out most flax-based products until the company was acquired by Feltex NZ in 1980. Eventually the right to manufacture and sell felt, one of the last products to ever be made of commercial flax, was sold to another group, Bonded Felts Ltd, whose headquarters was destroyed by fire in 1985, which effectively ending the New Zealand flax industry.

That is, I guess you could say a brief overview of the timeline of the industry and there have been many ideas as to why New Zealand flax never really took off. Some we have already mentioned are that the Reserve Bank never took it up to make bank notes, the nature of the saturated, worldwide market, the fact the industry never was terribly cohesive locally, didn't innovate much in terms of plants plus of course disease and the Great Depression. Other more specific factors that historians have also put out that may have contributed is the colonial idea that New Zealand was subordinate

to her mother country, Britain, with British lawmakers favouring British manufacturers over colonial ones. This was seen all over the world, with Britain at one point requiring colonies to send their exported goods direct to them before they could go to their intended destination so that they could clip the ticket. All of these factors also led to the death of a similar industry, Indian jute, in 1894. To almost illustrate this, New Zealand flax was actually sent to Britain numerous times to try establish the industry there during and after WW1. This was spearheaded by the Royal Botanic Gardens, Kew in conjunction with other groups and met with a variety of success and failure, the failures mostly occurring in Scotland and Ireland.

Although the industry lasted over 150 years, warnings signs could have been seen as early as 1828. You see, the British Navy at the time had been considering using harakeke fibre for ropes. As you might imagine, this would have been huge although harakeke would hardly be the sole source of fibre used, His Majesties Navy was massive, the most massive in the world in fact. They were the largest end user of the product at the time, so it came as a massive blow when, in 1828, they rejected harakeke as a source of fibre on the grounds that it was expensive to cultivate, there was uncertainty through bad crops and availability of more familiar fibres, problems we have seen come elsewhere in this episode. This was done in spite of the fact that the same complaints could be made of other products, especially since the distance, a key factor in the expense equation, had not been an issue for the meat, wool and dairy industries, which became cornerstones of the New Zealand economy. There was also the option of using muka prepared by Maori, which was of much higher quality than that of machine-made fibre. However as we have mentioned, it was slow to produce being made by hand and Maori had their own concerns regarding trade, especially as most of the iwi that controlled said trade were in Northland, resulting in conflict between iwi for more control of that trade. In fact, instead of harakeke and muka, food was actually a major source of income for Maori, provisioning the ships of early European explorers to Aotearoa.

I hope you have enjoyed this look into the New Zealand flax industry from its beginnings as trade between two peoples to industrialisation, rise and decline. I also hope you have enjoyed our look into Maori weaving as this is our last episode on it. These last few episodes have been awesome to research and write so I hope you have learned at least one cool new fact to tell your mates! We can't keep looking backwards though, we got to look forwards. Which I realise is super ironic given this is a history podcast. Anyway, you're probably wondering what's on the horizon!

Well, given it is the end of 2019, this will be our last history focussed episode of the year. That doesn't mean you won't get any HANZ for the next couple of months, it just means we won't start our next topic until next year. That topic will be a big one covering at least four episodes and will be a rather personal one for a lot of people so I don't want to split it up with some of the other episodes planned for the end of the year. The topic, if are wondering, will be all about tā moko, the famous art of Māori tattooing. Next time though, we return to more exploits of our favourite trickster demigod, Māui and how he pulled up Te Ika a Māui and got shipwrecked in the process creating what we know today in English as the North, South and Stewart Islands.

If you want to send me feedback, ask a question, suggest a topic or just have a chinwag you can reach me through email at [historyaotearoa@gmail.com](mailto:historyaotearoa@gmail.com) or Twitter at History Aotearoa or Facebook at History Aotearoa New Zealand Podcast. This podcast is a one man band, if you enjoy listening to me talk history, you can support us through Patreon, buy merch or rate us on iTunes or your preferred podcast platform, it means a lot and helps grow, spreading the story of Aotearoa New Zealand. As always, haere tu atu, hoki tu mai. See you next time!