Kia ora, gday and welcome to the History of Aotearoa New Zealand. Episode 61: We're Gonna Need a Bigger Waka. This podcast is supported by our amazing Patrons, such as Angie and Annika. If you want to support HANZ go to patreon.com/historyaotearoa. Last time, we talked about the construction of matau, hooks. We looked at things like what they were made of, how they worked and a few of the different designs. This week we will be continuing with matau, talking more about some of the other types of hooks as well as what Māori thought of European designs and what Europeans thought of Māori designs.

Last time we particularly looked at circular and U shaped hooks which is the most popular design of hook across Aotearoa and possibly even the world. The other major type of hook that was used was the pā or the trolling lures used to catch pelagic fish, such as kahawai or barracouta. These were usually made of wood, bone, shell or stone shanks with a short sharpened shell or bone point. These hooks looked similar to the seabird hooks in that they had a long shank with a slight bend and a point lashed on at the end pointed up, however the shank was usually thicker than the seabird hooks and the line would reach right along the back of the shank to add some extra strength, which was vital for catching larger fish. Occasionally they would also have piece of paua attached to the concave side to act as a visual lure as well as feathres from kotare, kingfisher, korora, little blue penguin and sometimes kiwi. Though it should be noted that hooks with paua shell were rare due to the difficulty in making them prior to the arrival of metal tools in New Zealand. Other abalone species were used throughout the Pacfic, given that paua is endemic to Aotearoa, however other cultures put the shiny shells on the convex side rather than the concave side like Māori did. Something that is also interesting about paua and paua lined hooks is that Cook and other early European explorers didn't manage to bring back any of these hooks to Europe. Which seems a bit weird since they were usually quite interested in things that were unique or shiny. They were highly sought after by 19th century collectors but we come back to that in a bit.

The reason paua and feathers were used as visual lures is that the hook wasn't baited and sat in the water like the circular hooks. Instead they were pulled behind the waka, particularly at the mouths of rivers and some would even be designed to spin so that they caught the light and made the paua shine even more. Usually ones that were made with entirely paua shell were for catching smaller fish as the shell just didn't have the strength to handle larger fish. That isn't to say they weren't effective though, with one fisherman being able to catch 200-300 kahawai on an incoming tide. Interestingly for trolling lures, we don't see many examples of moa bone being used. In fact, there are only six examples in existence that we know of, four in the British Museum and two in Te Papa. This may have to do with the fact that moa bone is quite porous and therefore is likely rather light, whereas trolling lures needed to be a bit heavier so they sat lower in the water as they were being pulled behind the waka.

Another type of hook was the pohau mangā which were used to catch barracouta. The were more straight, more solid looking blocks of wood, usually rimu or beech with a non-barbed bone point at the end. The reason they were longer is so that the sharp teeth of the barracouta didn't chompe through the line when it bit down on the hook, instead it just got the wood. Later we see metal nails replacing the bone points.

A slightly different type of hook was a jig, a slender lure whose shank was made from unbacked paua. Their point was often long and barbless, being made of wood, shell or the dorsal spine of a spiny dogfish, a species of small shark. Although they don't seem to be strong enough to catch larger fish, they do seem to have a bit of a resembelence to modern squid jigs, hence the name. So it's possible they could have been used to fish for squid, particularly at night. However, squid suffer a similar problem that the cartilagenous fish do that we talked about a couple of episodes ago, in that

they don't really appear in the archealogical record. Well, actually they suffer from an even worse version of it as at least with things like sharks, skates and rays they have the cartliege skeletons that have some chance of being presevered in the archealogical record. Squid don't have any bones at all, the only hard part is their beak, but this would likely require special conditions for it to survive for an extended period of time. Additionally, there isn't really any evidence to suggest Māori ate squid, though we do know they ate octopus. However, these were potentially reserved for people of high rank, such as an ariki.

Moving away from construction and more into the use of the hooks, there was a lot of ceremony and ritual around the first use of a hook. It wasn't just like you made it and threw it overboard to catch some fish, you had to go through a bit of a process. Best and others tried to document karakia and other things that were said during these proceedings but by his time Māori life had been changed so significiantly due to European influence and interferance that a lot of the mātauranga, that passed on Māori knowledge of their ancestors, had been lost already. The sorts of things that were recorded though were ceremonies when waka reached the fishings grounds with the new hooks. The hooks and lines would be laid out and a tohunga would recite a karakia to ensure they worked well. As you might recall, the first fish caught was returned to the ocean with another karakia being said over its release to encourage it to bring back lots of other fish. Just as well, as you may remember that Manuruhi had not given Tangaroa his proper dues of the first catch and as such turned him into a tui and then a pou in his underwater kainga, resulting in his father Rua heading down to find him and bringing whakairo into the world. In fact, some hooks would actually have carved depictions of Tangaroa on them, either at the end where the snood was attached or where the bait was tied on.

Other interesting tikanga and tapu around fishing was that if only kahawai were caught, women were not allowed to eat the meal but if snapper or other fish were caught then it was all good, but the first fish belonged to the tohunga. Though presumably the first fish after the actual first fish that was given back to Tangaroa. Once the fishermen returned to shore, three hangi would be set aside as tapu. The first was called He Marae, for the elders, the second Te Ikahoka, for the priest of the waka and the third was called Te Tukunga, for the rest of the party which I assume to mean the actual fishing crew themselves. When cooked, the presiding tohunga would take the fish and pull out a piha, gill, and take it somewhere tapu to speak a karakia over it as it was suspended on a string. Tohunga weren't the only ones doing the heavy spiritual lifting though. It was common for fishermen to also know at least one karakia to repeat over hooks to ensure they worked correctly and would bring in lots of fish. One such karakia apparently involved arranging the hooks the day before their use around human faeces. The European who recorded this, Reverend Richard Taylor, said the karakia spoken for this "will not bear repeating". Though it is important to keep in mind, I could not verify that this was an actual thing that some people did, so take that with a grain of salt.

Best also records another ceremony based around the first use of a new line saying "when a man used a new fishing line (aho, nape) for the first time in fishing... he went through a strange performance. Amid the silence of his brother craftsmen he tied a sinker (mahe) on his new line, and then the hooks, beginning with the lower one. He then baited the hooks, not forgetting to expectorate on each bait as he tied it. He then coiled up the line and passed it under his left thigh, after which the line was passed over the left side of the canoe in its first wetting. When the line was out he lifted it a little if the sinker had touched the bottom, held it in his left hand, and with his right hand, dipped up a little water and threw it against the line. When he caught his first fish he deposited it in the stern of the canoe, after which his companoins were allowed to commence fishing. When the party returned to land, the owner of the new line took his first caught fish and the

fern or bulrush leaves he had used as a seat, and returned home. There he generated a fire by friction and burned the fern, and at that fire he roasted a portion of the gills of the fish taken from the right side. He then took the gills in his left hand, lifted it up and waved it to and fro, at the same time calling to his dead male relatives that here was food for them: it was an offering to the spirits of those defunct relatives. He did the same with the portion of gill from the left side of the fish: this offering to the spirits of his deceased female relatives. The fish he deposited at the tuahu..." The tuahu being a tapu place where a tohunga conducts various rituals and ceremonies.

Something we haven't really talked much about is hooks that were used for a more ceremonial purpose rather than the practical application of fishing, similar to the difference between a toki and toki poutangata. There is a bit of mention of hooks used for ceremonial use, such as an English collector called Harry Beasly, who mentions slender hooks used for ceremony. However, these were later revealed to be the seabird hooks used to catch albatross and other seabirds. There is a bit of debate today about whether ceremonial hooks could have existed and been used but Best and Hiroa, probably our two best sources on pre-European Māori culture, don't mention hooks outside of their practical use. Additionally, there aren't any hooks in museum collections that could be interpreted in that way. It seems that although all hooks had some spiritual and ceremonial aspects around them, particularly in their use for the first time, they were still designed and constructed for the long term practical application of catching fish. In fact, any hooks that are more ornate and potentially described as ceremonial are likely post-European examples designed for trade or as tourist items.

Speaking of Europeans, lets talk a bit about what they thought of Māori fishing equipment and some of the changes that came with the clash of cultures. As we ahve seen in other aspects of Māori culture, they were quick to catch on to the advantages of metal that Europeans brought with them, in this case, metal hooks. Although initially Māori weren't terribly interested in the metal nails Cook tried to trade with them in Hawkes Bay in Oct 1769, a few months later in early 1770 the word must have gotten around. When the *Endeavour* was off the coast of Cape Palliser near Te Whanganui a Tara, modern Wellington, three waka came out to to meet them and their crews came on board. At some point during their discussions, they specifically requested metal nails from Cook's crew, which they had heard of but hadn't seen before. After Cook's first voyage, metal items were highly sought after by Māori. Stuff like copper ship's nails, wire and even horseshoes were used to make hooks in the usual circle hook design as they were more durable, stronger and probably easier to make as metal was more malleable than bone, stone or shell. This would continue until mass production of hooks came along, making J hooks widely available. Māori were also quite keen to add European fishing methods as well as tools to their tackle box as well.

As is probably a familiar story to you now, Europeans generally regarded Māori fishing methods and equipment to not be that good and much preferred what they were used to. The European sentiment is summed up fairly well in this quote from Best, "the peculiar term mangoinaoi was applied to fishing from the beach by night, but as to why anyone should so fish at night, and also claim a specific term for doing so at unholy hours is more than I can say." If there are any fishermen listening, they will know that fishing at night or in the wee hours of the morning as the sun rises is perfectly valid and can be preferable depending on what species you are targeting to catch. In his own defence though, Best does acknowledge that he doesn't know all that much on Māori fishing in general. The thing about this derision by Europeans on Māori fishing equipment, particularly hooks, was that the Māori designs were actually pretty bloody good! They wouldn't have been able to rely on fish as a source of protein if they didn't have an effective and reliable way to catch them. Joseph Banks was actually quite positive of their methods in 1769 saying that Polynesian fishing methods

were "vastly ingenious." Though he did go on to say that the fish hooks were "ill made, generally of bone or shell fastned to a piece of wood." He also noted that nets tended to be more important to Māori for fishing than hooks as they were easier to use. I would personally argue against that point, as we will see in the coming episodes, the methods by which nets were employed could be rather complicated when taking into account the amount of ecological knowledge needed to catch certain species. As it turns out, the naturalists on each of Cook's three voyages all made comment on Māori hooks. Joahann Forster on Cook's second voyage said that they purchased fish hooks in Queen Charlotte Sound, one of the larger sounds in the Marlborough Sounds at the top of the South Island, and called them "unshapely" and that the people they had gotten them from claimed the serrated bone on it was human. William Anderson of Cook's third voyage also made comment that he wasn't really sure how their hooks worked given their odd design. Other explorers, such as de Surville, as well their crews also expressed doubt at how well Māori hooks worked in comparison to their metal ones. We even see later academics saying things like "as far as new fishing technologies and specialised knowledge are concerned there are few signs of significant achievements in prehistoric New Zealand." This is, of course just simply not true and seems mostly stem from the fact that Europeans took one look at these new designs and thought they were crap without having any real desire, or perhaps just time, to find out how they worked and really assess their effectiveness. Cause what they would find is that they would be just as effective as their metal counterparts and in fact, you want to know the really bananas thing about all this? Circle hooks, just like the ones used by Māori for at least 800 years, if not longer and was used by many other indigenous cultures across the world for thousands of years more, is now in the modern day being recognised as potentially better than the J hook design and is even seen as a more advanced hook! When of course this is in fact not really a more "advanced" design, it's the rediscovery of an older technology that was just fine to begin with!

One of the things I found quite fascinating when I was researching this topic was what Europeans thought of the fish species themselves. Fish is regarded as one of modern Aotearoa's greatest assets, both as a commercial interest and for food culture. We will talk about New Zealand's commercial fishing interests in a minute but fish species in New Zealand also give a unique food culture, since a lot of our species are only found around Aotearoa or a bit further afield in Australia. Something like tāmure, snapper, is quite synonymous with our fishing culture due to its flavour, adding an NZ spin to a British classic like fish and chips. So what did the first Europeans in Aoteroa think of Tangaroa's children? Well, initially they were pretty uninterested, they thought things like farming were a lot cooler. They also preferred to just eat species they were already familiar with, such as John Dory, flounder, mackerel and eels, all of which could be found in Europe and New Zealand. Other endemic species weren't viewed as quite favourably. Crayfish were described as "not highly flavourful" and "very insipid", which I had to google what that words means. Apparently it means flavourless, so they are essentially saying the same thing. Tāmure, snapper, were also described in a similar fashion, said to be "dry, insipid and inferior". Hāpuka is really the only one that doesn't get absolutely bashed but more gets a subtle backhand of, "not bad by any means when one is hungry." Ouch. Europeans decided to take this one step further though. Since I can only assume their hatred of native species was so deep seated they actually went to the trouble of importing fish species such as salted and kippered herrings and later, canned fish. They preferred CANNED FISH. I shouldn't bag them too much, there was more reason to this madness than just some sort of disdain for native fish flesh. It was also because, due to the large amount of farming going on, red meat was pretty cheap and widely available. It kept better than fresh fish as well which was a bonus in the years before refrigeration, so it quickly became the Pākehā preferred protein. There was actually some interest in toheroa, a species of mollusc which would be turned into a soup and was then later canned and

exported. However, over exploitation of the fishery in the 20th century resulted in it's decline, with recreational fishers said to gather 1 million of the shellfish in one weekend in 1966. It's collection was eventually banned in 1979 and it seems the population has never recovered. Interestingly, other shellfish and crayfish weren't of huge interest to early European settlers, which may have been down to cultural stigma from Europe. You see, many settlers to Aotearoa were Scottish and Irish, and in the case of the Irish, many of them came over after or because of the Great Famine. During the Famine, stuff like crayfish and various shellfish were eaten by those who didn't have much, instead of the usual potatoes and other foods. As such, these foods became associated with the poor and poverty in general, so it is likely that they felt doing so again would be reducing themselves to those same levels, or perhaps reminded them of those times. It wouldn't really be until the 20th century that Pākehā would begin eating local seafood in earnest.

After the signing of the Treaty of Waitangi and the New Zealand-European government had established a firm position, they turned their focus to they nation's economy, one aspect of which was fishing. The government saw huge economic potential in the country's fish stocks as they had been basically untouched, apart from Māori who hadn't really made a dent in their populations. However, that didn't stop Europeans from claiming that Māori were the ones depleting the fish stocks and from eroding Māori customary fishing rights as the two groups began competing for the same resources. This was also even despite that fact that Māori rights to fishing were protected under the very Treaty that underpinned the entirety of the fledgling New Zealand nation. Initially these disputes were concerning just oysters and mullet but eventually grew. The government even banned the fishing methods Māori had been using for centuries and required them to get a licence for commercial fishing.

As such, during this time, fishing had changed from being in small wooden waka with harakeke lines, bone hooks and large community made nets to larger trawlers with synthetic materials and metal hooks. Some of these trawlers were even run by Māori owned fishing companies. So by the mid-19th century, most Māori were using European technique and equipment when it came to fishing and much of the knowledge that had been passed down for centuries was lost. This was aided by the fact that European hooks were mass produced and easy to obtain compared to the difficult and time consuming to make Māori hooks, as well as the fact that many fake hooks were made for tourists and collectors during the Māori tourism boom.

In terms of commercial fishing today, 450,000 tons of fish and other edible marine animals is caught each year within New Zealand's territoral waters, 268,000 of which was exported in 2018. The industry also doubled in value from one billion dollars in 2007 to two billion dollars in 2020, about half of this is owned by iwi, who are guaranteed 20% of all quota for any species introduced into the Quota Management System. I don't just tell you this to give you an idea of why this is important to the New Zealand economy today but I also feel I should state that I am rather against the way modern fishing happens and the huge amount of harvesting that occurs. Not just because there is potential that these fisheries are causing some fish species to decline but also due to the hidden cost behind these numbers, the bycatch of unwanted species, such as what are called undesirable fish species, seals and birds, including the endangered hoiho, yellow eyed penguin.

Next time, we will start talk about nets! Big nets, small nets and all nets for catching fish. Well, not all of them, it will take a few episodes to get through them all!

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means a lot and helps spread the story of Aotearoa New Zealand. As always, haere tū atu, hoki tū mai. See you next time!				