

The Beauty of Technology by Shelley E. Reid

An abundance of fishing tools and implements are housed in the ethnology collection at the Royal British Columbia Museum. Over the years, I have worked with them as collections manager and have come to appreciate the ingenious fishing techniques and beautiful fishing tools of Northwest Coast First Nations.

Due to favourable climate and geography, Northwest Coast peoples had access to an abundance of natural resources. The cedar tree was a great source of raw materials for making tools, containers, buildings and clothes. Food came from local forests, rivers and especially the sea. Fish, seaweed, sea mammals and shellfish were harvested, with salmon perhaps the most abundant and revered dietary source.



Fig. 1: Pressing eulachon fish for oil, Nass River, 1884.[credit] Richard Maynard, RBCM PN 1448

There was a pattern to life, dictated by seasonal fish runs. In the springtime, the inhabitants of the winter villages would generally break into smaller family units and travel to where the food was most abundant. Temporary shelters would be set up along the rivers or at the river mouths, to take advantage of the salmon, eulachon, halibut, cod and, to a lesser extent, sturgeon. People would focus their attention on capturing and preserving enough plant and seafood to last through lean winter months. During the winter season, families turned their attention to feasting and potlatching.

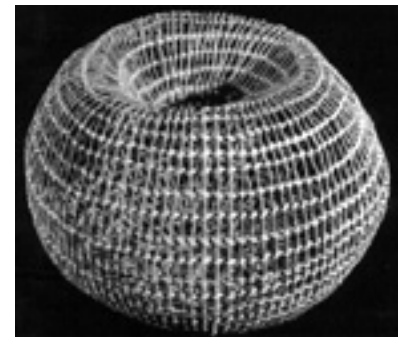


Fig. 2: Kwakwaka'wakw basket fish trap, Nahwitti area (north Vancouver Island), c. 1900.

The most important food source was Pacific salmon: chum, chinook, pink, sockeye and coho. Salmon were so abundant that they could be eaten fresh in large amounts and stored and dried in quantity for the winter. Coastal peoples held great respect for the salmon; often, a special ceremony would commemorate and welcome the first salmon of the year.

Fig. 3: Eulachon drying racks, Nass River, 1884.
[credit] Richard Maynard, RBCM PN 5001

Eulachon, a small type of smelt, were also caught and preserved. They were called "candlefish" because they contained so much natural oil that when dried, they could be burned like a candle. Eulachon oil was not only a food product but also a valuable trade commodity. Eulachon fishing rights were highly prized by the Tsimshian and Kwakwaka'wakw peoples. Other groups such as the Haida and Tlingit had no access or rights to eulachon fishing and would seek oil from those who had a surplus. (Eulachon trade routes were known as "grease trails.") The fishing areas were so important that jurisdiction was closely monitored; kinship groups held exclusive rights that could be passed down as private property. Two main techniques were used to preserve fish: drying and smoking. Eulachon were pierced by sticks threaded through the gill and mouth and were hung on drying racks (figure 3). With good weather and the right combination of wind and smoke, the fish could cure in about five days.



Eulachon oil, rich and nutritious and a natural source of iodine, was consumed with almost every meal as a seasoning or flavouring agent and was also used for trade with other groups. The fish were allowed to spoil or "ripen" before rendering the oil. Afterwards, they were placed in a vat or a pit filled with water which was heated up to the boiling point. Most of the oil would then rise to the top and be skimmed off and placed into containers. In early times, the oil was stored in "bottles" made from kelp bulbs; later, glass bottles were used.

Ingenious fishing techniques and their accompanying tools developed over time, as they were enhanced, modified or discarded depending on their effectiveness and the availability of materials.

Fig. 4: Bella Coola halibut hook with bone barb, collected 1893 by Phillip Jacobsen. [credit] Ray Bethell;
RBCM Artifact CPN 711

Halibut, very important to the people of the North Coast where salmon were not as common, were often caught with two-piece hooks made of hardwood attached to fish lines made of braided strands of red cedar (figure 4). The upper section of the hook would be made of yellow cedar; the lower section might be of alder, which was heavier but could withstand intricate carving which was done to influence and entice the fish. The upper part was suspended by a float or buoy to mark its location in the water. A sinker was attached to the hook to keep it at the correct position and depth.



Another type of fish hook was made of bent yew wood. Often, a single length of yew was soaked in water then steamed to become pliable. It was then bent into a characteristic curve with pegs and moulds to hold its shape as it dried. As with halibut hooks, a bone or metal barb was attached with cedar-root lashing.

Fig. 5: Nuu-chah-nulth fishing lure for cod, cedar wood, collected in 1911 by C.F. Newcombe at Dodge's Cove.

[credit] Ray Bethell; RBCM Artifact CPN 2224

Lures were often designed and carved in the image of the marine life they were intended to entice (figure 5). They were towed through the water and would decoy or attract fish into a place where they could then be speared or netted. Dip nets were used to scoop up small fish like herring or smelt. Beautiful but effective floats, carved in the image of a sea creature, served to mark or hold the fishing lines afloat.



Specially designed basket traps were also used to lure the small fish used for bait (figure 2). Once inside the oblong- or globular-shaped traps - often made of flexible cedar boughs - the fish would become disoriented and unable to escape.

Fig. 6: Salmon weir on Cowichan River, c. 1867.

[credit] Frederick Dally; RBCM PN1380

Long rakes, dip nets or funnel traps were often used to gather herring and eulachon. Stone or pole weirs were built to span rivers. These fence-like structures would direct the fish into an area where they could be speared or caught in nets (figure6).



While I have introduced only a few examples of the fishing artifacts of Northwest Coast peoples, I hope that the visual appeal of the tools, the ingenious fishing techniques and the thoughtful way materials were used has stirred your interest. Evolving over thousands of years, the result was an efficient and thriving fishing practice that provided more than adequate sustenance while the fragility of the resource was respected. It is truly a marvel to see the "beauty of technology" that these artifacts display.

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