

INDIAN FISHING

EARLY METHODS ON THE NORTHWEST COAST

First Nations Resource Centre



0000953

Hilary Stewart

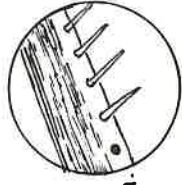


HERRING RAKING

○ SHAFT ROUNDED ON BUTT END.

HAND GRIPS

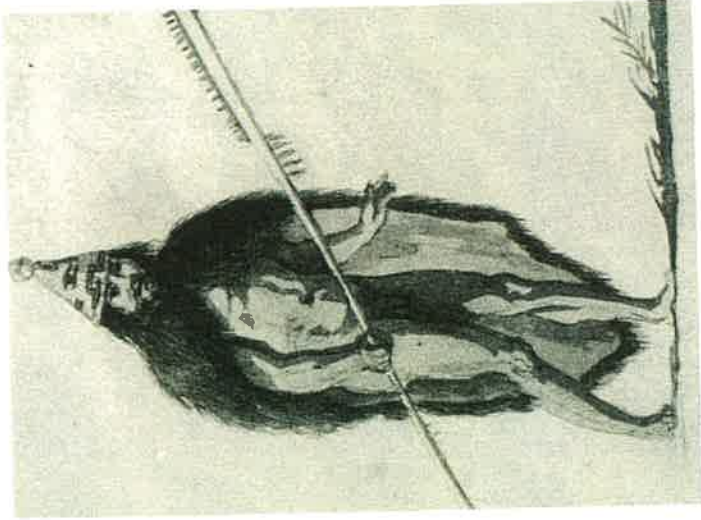
LENGTH ABOUT 4 m.



HARDWOOD OR BONE TEETH SET INTO DRILLED HOLES, OR HAMMERED IN FROM THE BACK. LENGTHS VARY FROM 2.5cm - 4.0cm. SPACING FROM 1.5cm - 2.8cm.



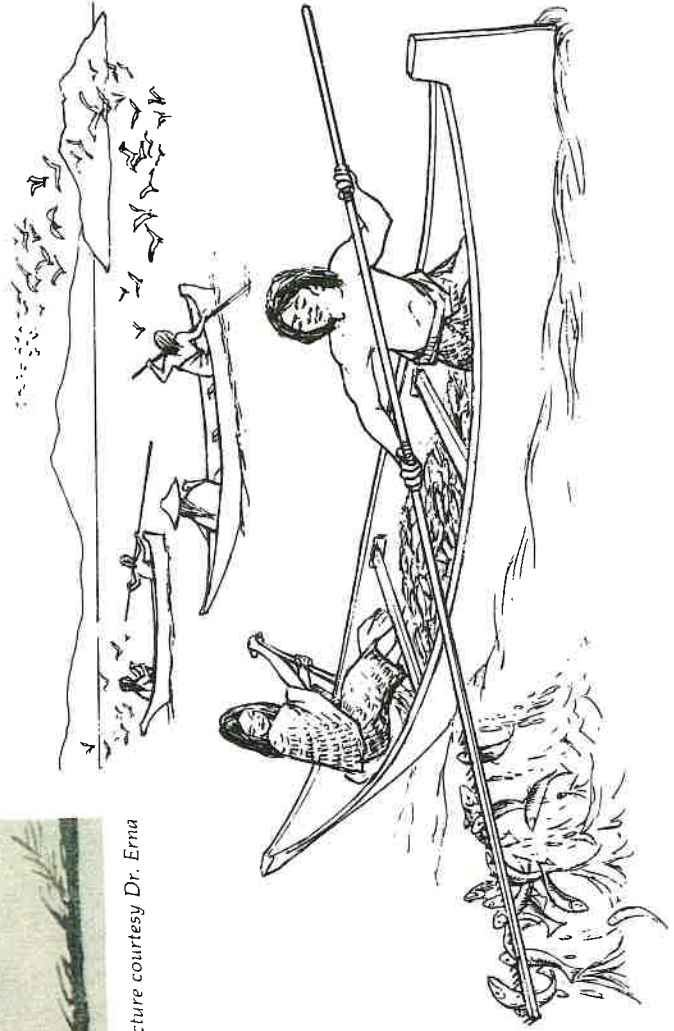
A VARIATION HAS ANGLED TEETH - 12 X WHEN NAILS BECAME AVAILABLE, THESE REPLACED TEETH OF WOOD AND BONE - RAKES ARE ALSO USED FOR TAKING SMELT AND EULACHON.



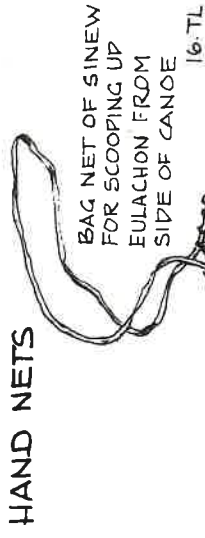
Nootka man with herring rake. Early Spanish picture courtesy Dr. Erna Gunther.

FROM RIGHT SIDE OF CANOE, FISHERMAN IN STERN SWEEPS HERRING RAKE THROUGH WATER IN PADDLE-LIKE MOTION, DRAWING IT UP AND UNDER FISH.

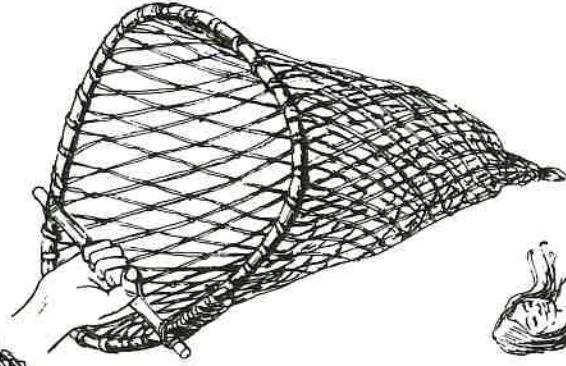
WIFE, IN BOW, PADDLES CANOE IN OPPOSITE DIRECTION TO INCREASE FORCE OF RAKE THROUGH WATER - IN ONE CONTINUOUS MOTION, MAN LIFTS RAKE OUT AND RAPS IT SHARPLY ON GUNWALE, CAUSING FISH TO DROP INTO CANOE - 29.NK



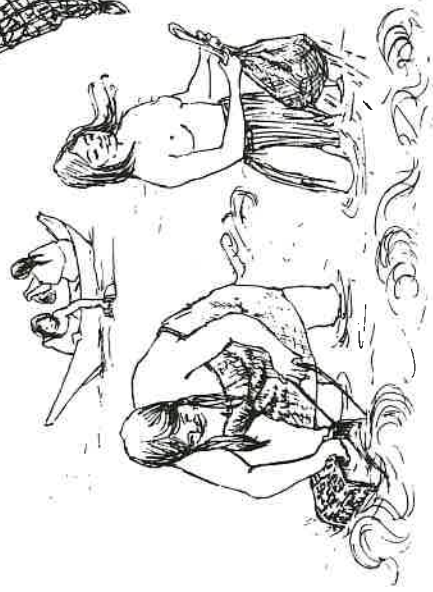
HAND NETS



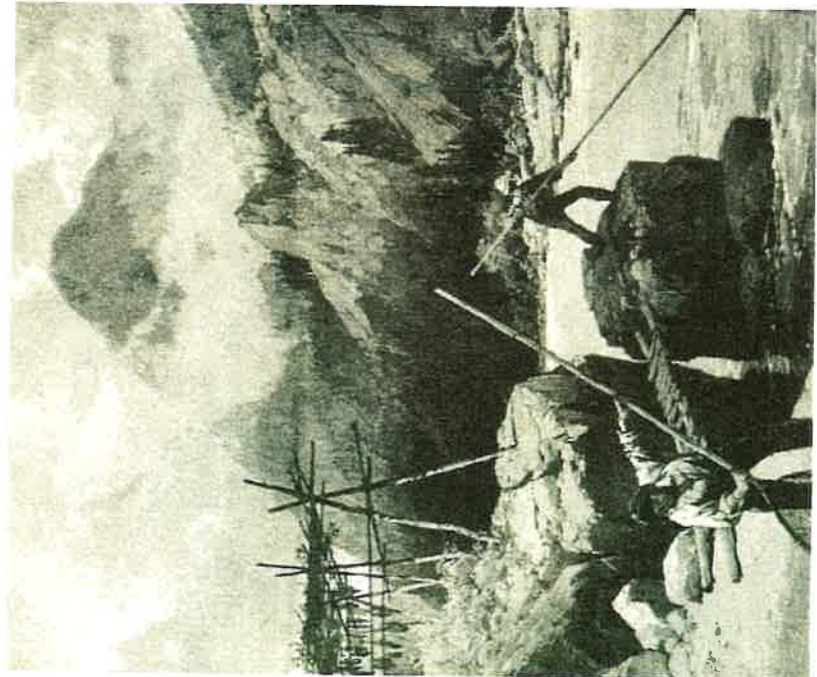
BAG NET OF SINEW FOR SCOOPING UP EULACHON FROM SIDE OF CANOE 16-TL



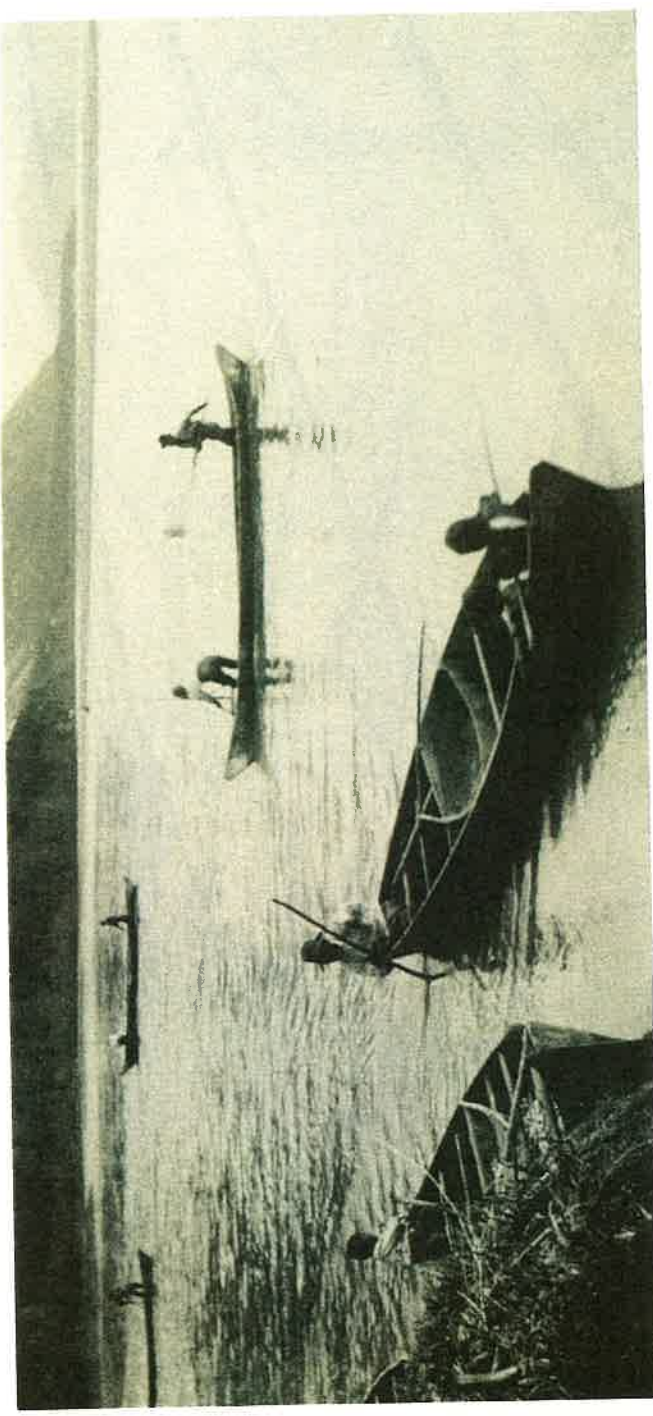
COD NET - USED IN CONJUNCTION WITH SPINNING LURE 60.0cm X 45.0 cm. 29-NK



WOMEN CATCH SMELT BY DIPPING BASKET OR BAG NET INTO SEA AT EDGE OF SURF. FROM SHORELINE OR FROM CANOE. 32-CS.

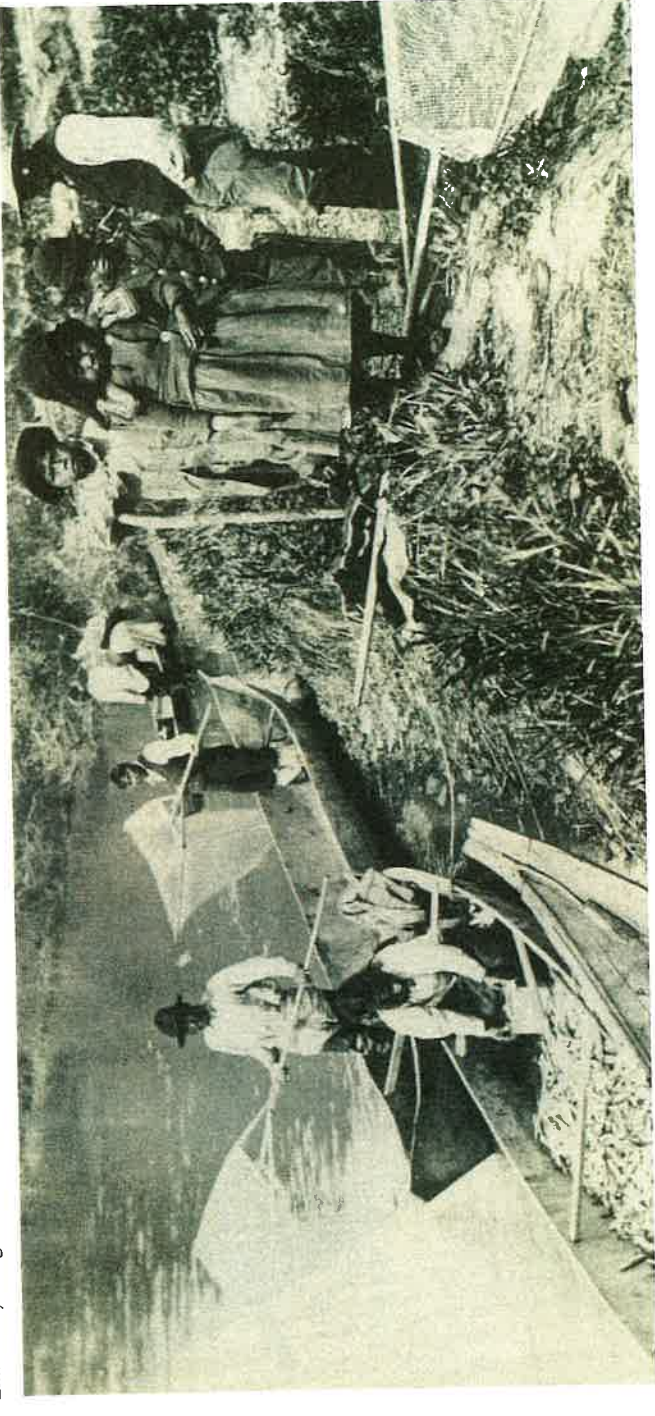


Cover engraving for New York magazine dated September, 1890, shows men dip netting salmon on the Fraser River near Yale, with fish drying on rack nearby. 62-CS

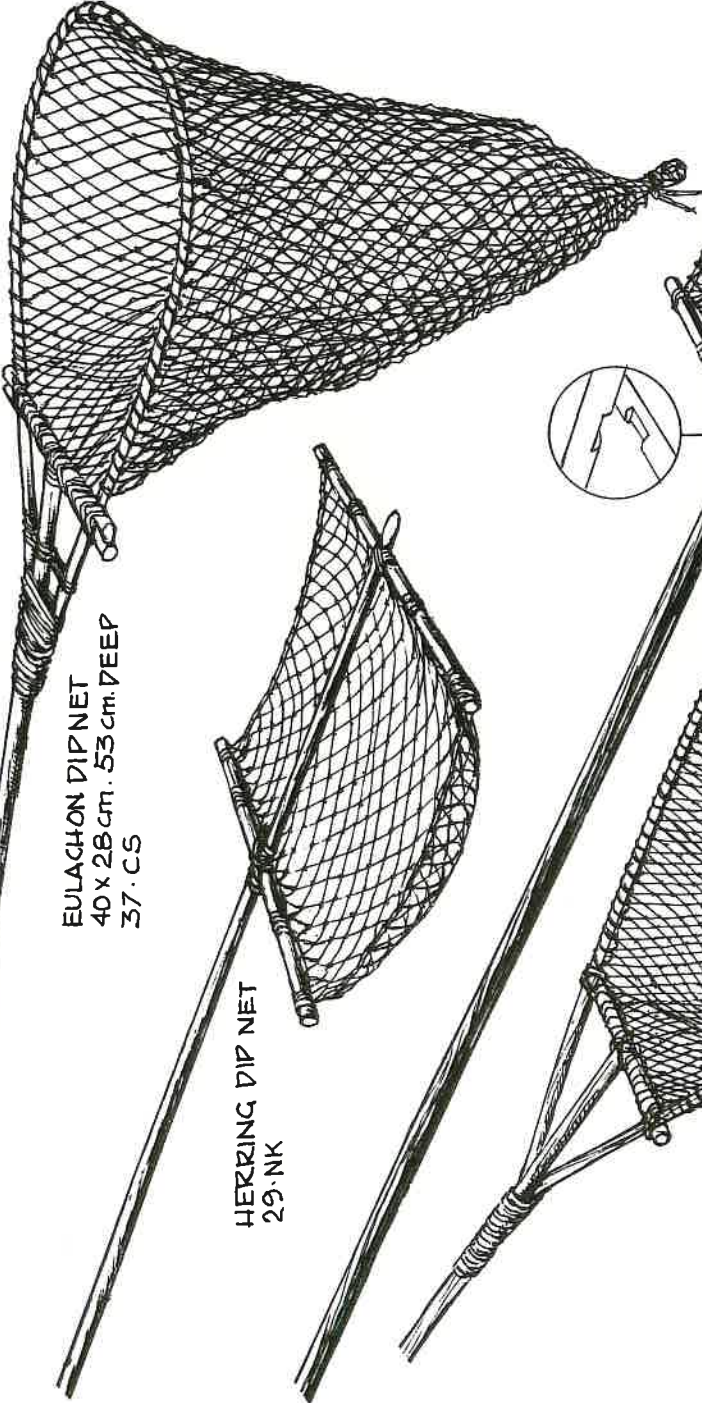


Netting eulachon, Chilkat River. 22.TL

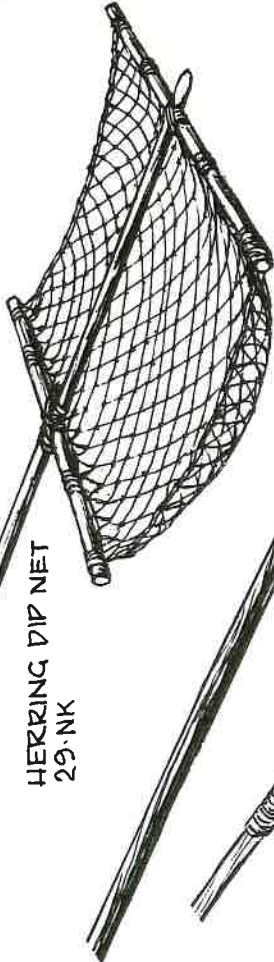
Eulachon fishing on the Chilkat River. 22.TL



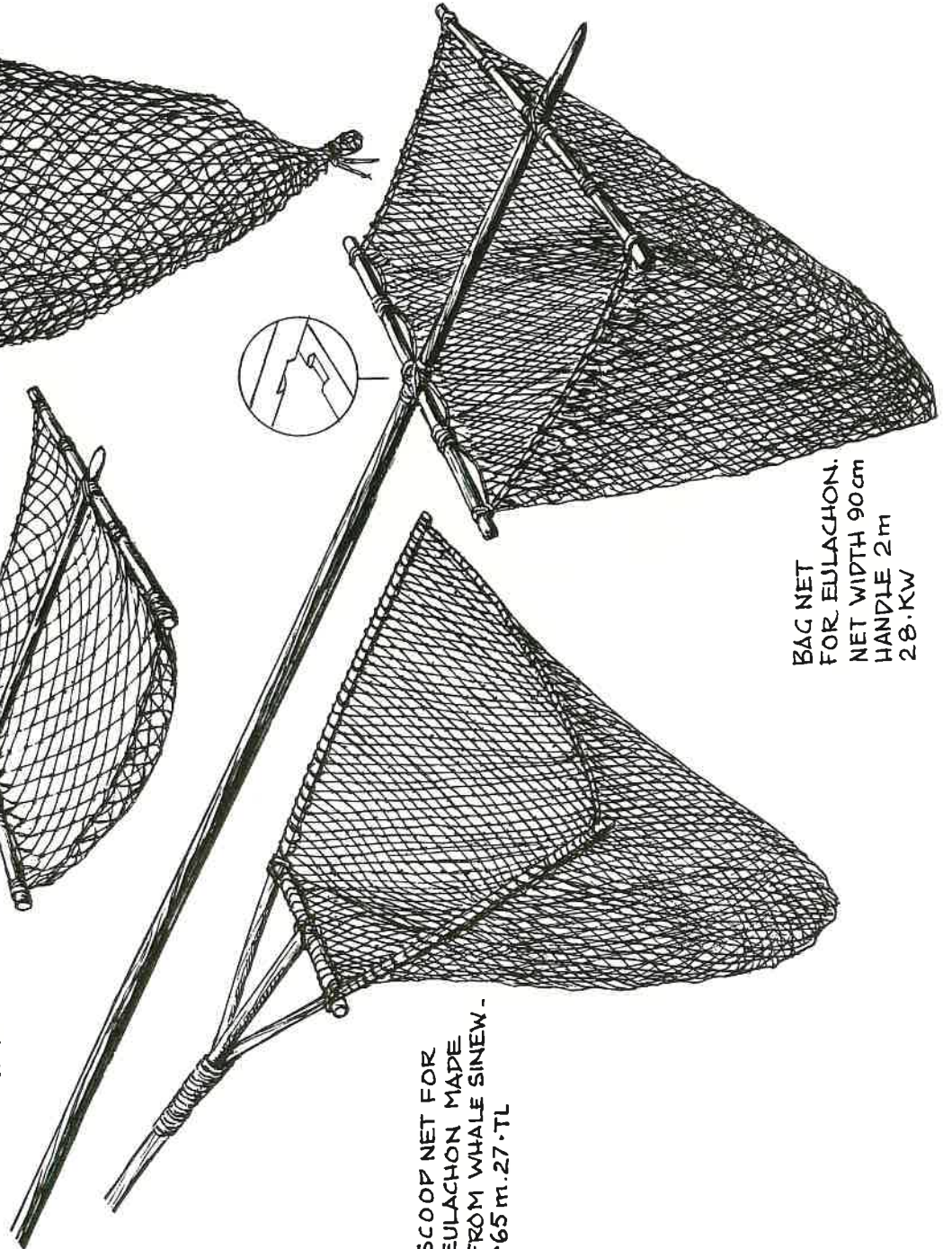
NETS FOR SMALL FISH



EULACHON DIP NET
40 x 28 cm . 53 cm DEEP
37 . CS



HERRING DIP NET
29 . NK



SCOOP NET FOR
EULACHON MADE
FROM WHALE SINOW .
1 . 65 m . 27 . TL

BAG NET
FOR EULACHON .
NET WIDTH 90 cm
HANDLE 2 m
28 . KW

Eulachon Fishing

The contribution of the eulachon to the health and welfare of the Indian peoples makes it one of the important fish of the coast. The small, silvery fish, migrating in countless millions, were caught in enormous quantities. Some were eaten fresh and a great many dried, but the majority were rendered down for the rich oil they contained.

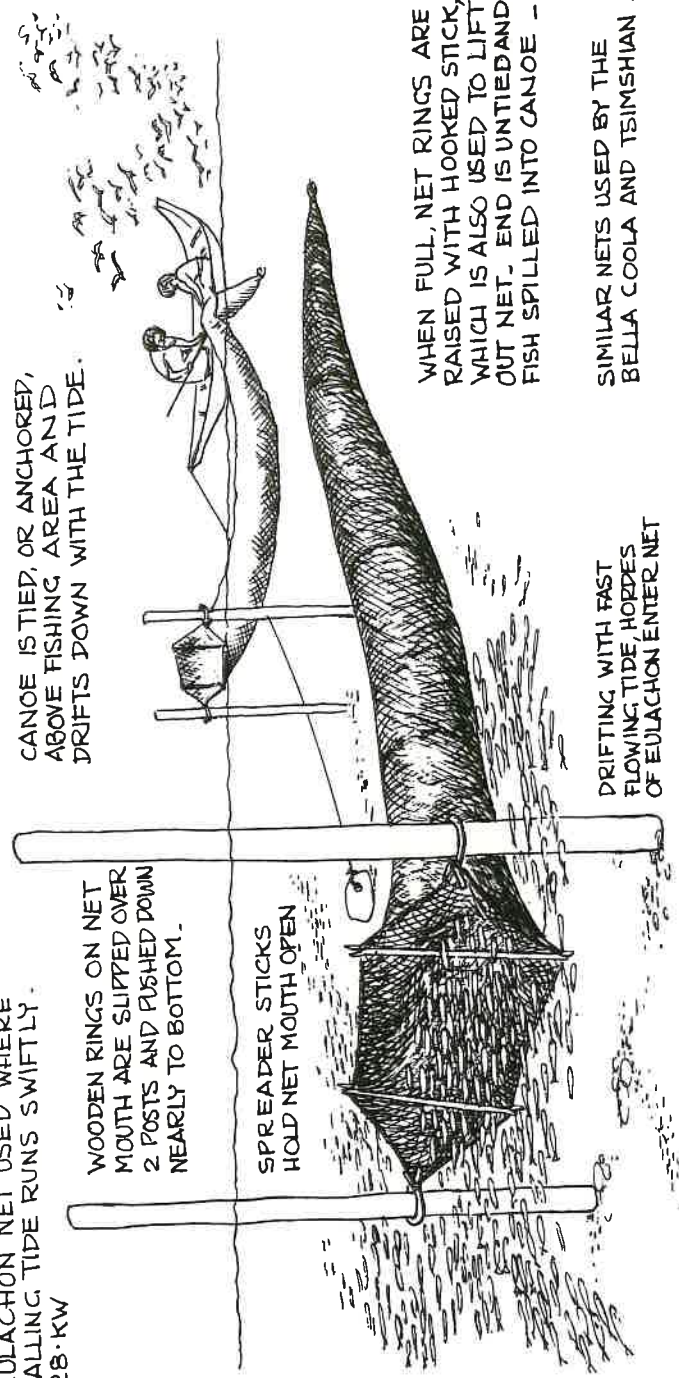
Often called "candlefish" (it is said you can light the tail of a dried fish and it will burn like a candle), the eulachon was also known as "salvation fish" since its arrival at the end of the winter meant so much to the food resources of the people. The Indian called it eulachon, a word pronounced with loose throat sounds difficult to spell with the English alphabet. In my research on this fish I have come across the following spellings, and there are probably more: eulachon, oolachon,

eulachan, oolichan, hoolikan, hollikan, hollican, holligan, oligan, olachan, oulachon.

Eulachon spawn in a number of rivers on the mainland where the tides run strong. The migration lasts one or two weeks starting as early as the end of February in the north and continuing through to April in the south. Among the Tsimshian, the Nass and Skeena Rivers were major areas for catching the fish, as were the Kitimat River and the rivers of Knight Inlet for the Kwagiutl. The Bella Coola people fished the Bella Coola, Kimsquit and other rivers.

Most eulachon fishing was by net, and methods varied with different parts of the coast. At Fishery Bay, 14 miles inland from the mouth of the Nass, the river was still frozen over when the eulachon arrived and fishing was done through the ice. This ancient practice is still carried on today. People from the village of Greenville now

EULACHON NET USED WHERE FALLING TIDE RUNS SWIFTLY.
28-KW



WOODEN RINGS ON NET MOUTH ARE SLIPPED OVER 2 POSTS AND PUSHED DOWN NEARLY TO BOTTOM.

SPREADER STICKS HOLD NET MOUTH OPEN

CANOE IS TIED, OR ANCHORED, ABOVE FISHING AREA AND DRIFTS DOWN WITH THE TIDE.

WHEN FULL, NET RINGS ARE RAISED WITH HOOKED STICK, WHICH IS ALSO USED TO LIFT OUT NET. END IS UNTIED AND FISH SPILLED INTO CANOE -

DRIFTING WITH FAST FLOWING TIDE, HORDES OF EULACHON ENTER NET

SIMILAR NETS USED BY THE BELLA COOLA AND TSIMSHIAN -

DIP NET OR BAG NET FOR EULACHON FISHING



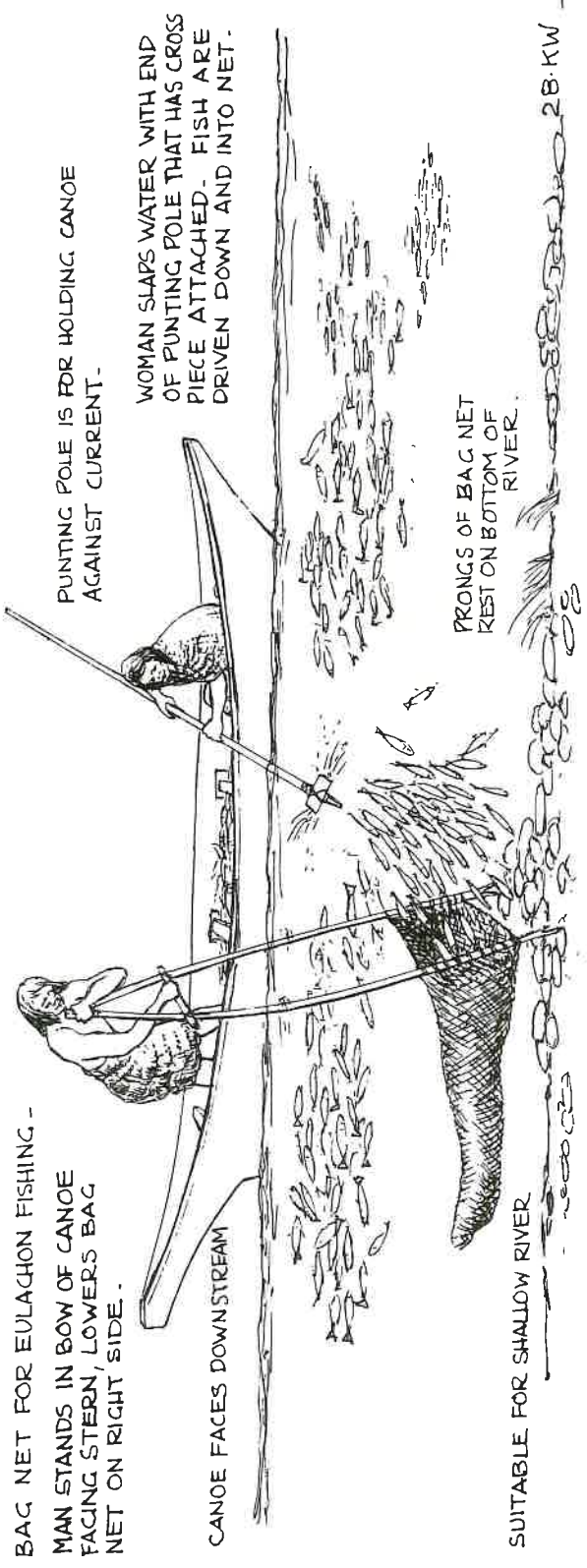
FISHERMAN SITS IN STERN OF CANOE
FACING INCOMING TIDE. NET IS SWEEPED
UP RIVER LIKE A PADDLE.

CANOE TIED TO OVERHEAD BRANCH
WHEN FLOOD TIDE IS RUNNING
AGAINST RIVER.

POINT OF SHAFT
TOUCHES RIVER
BOTTOM

EULACHON DRIFT UP RIVER
WITH INCOMING TIDE

28 KW



BAG NET FOR EULACHON FISHING -
MAN STANDS IN BOW OF CANOE
FACING STERN, LOWERS BAG
NET ON RIGHT SIDE.

PUNTING POLE IS FOR HOLDING CANOE
AGAINST CURRENT.

WOMAN SLAPS WATER WITH END
OF PUNTING POLE THAT HAS CROSS
PIECE ATTACHED. FISH ARE
DRIVEN DOWN AND INTO NET.

CANOE FACES DOWNSTREAM

PRONGS OF BAG NET
REST ON BOTTOM OF
RIVER.

SUITABLE FOR SHALLOW RIVER.

28 KW

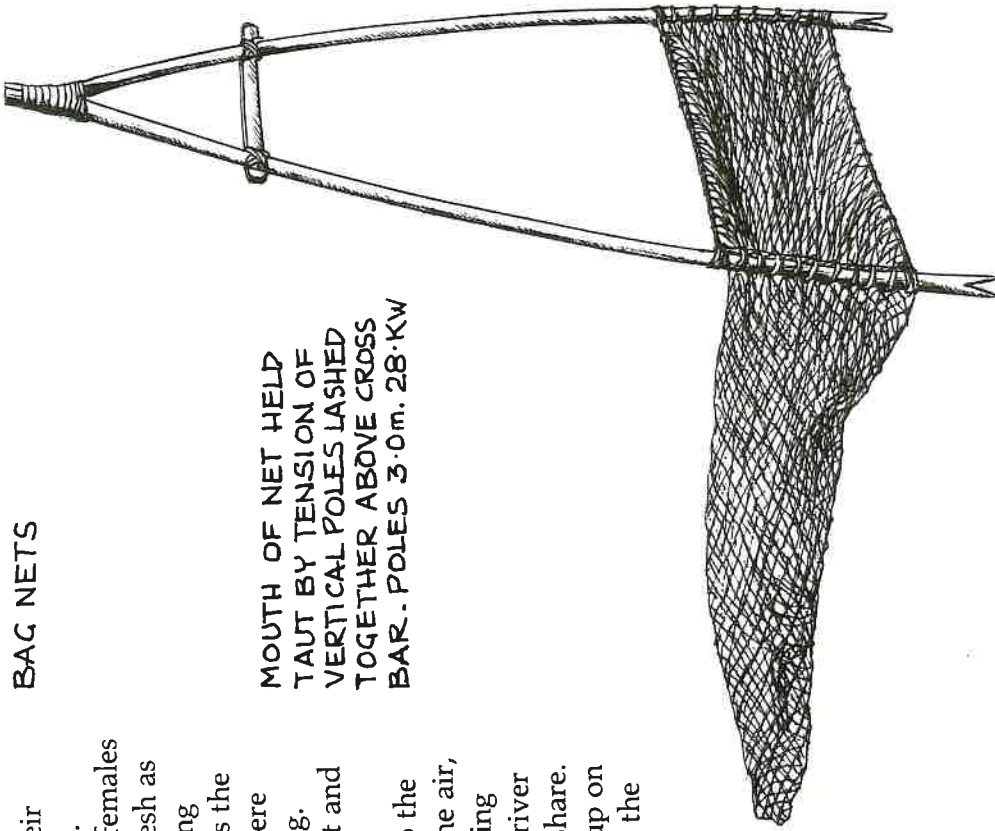
BAG NETS

travel the five miles down river to reach their ancestral fishing village by horse and sleigh.

The first wave of the eulachon run—the females usually preceding the males—were eaten fresh as a welcome change of diet for a people relying most of the winter on dried smoked fish. As the run built up and peaked, great quantities were caught for both preserving and oil rendering.

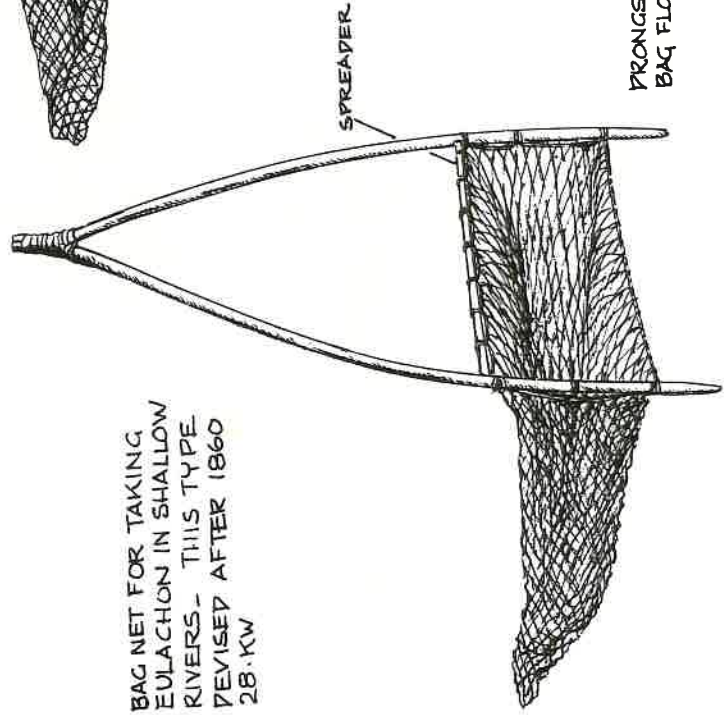
The Indian was not the only one to await and welcome the eulachon's arrival. Sea lions, porpoises and whales followed the fish into the rivers; screaming hordes of seagulls filled the air, wheeling and diving to snatch at the glittering fish; bald eagles perched in trees along the river side, ready to swoop down and take their share. When the dead, spawned-out fish washed up on the river banks, the crows and ravens took the last of the feast.

MOUTH OF NET HELD TAUT BY TENSION OF VERTICAL POLES LASHED TOGETHER ABOVE CROSS BAR. POLES 3.0m. 28.KW



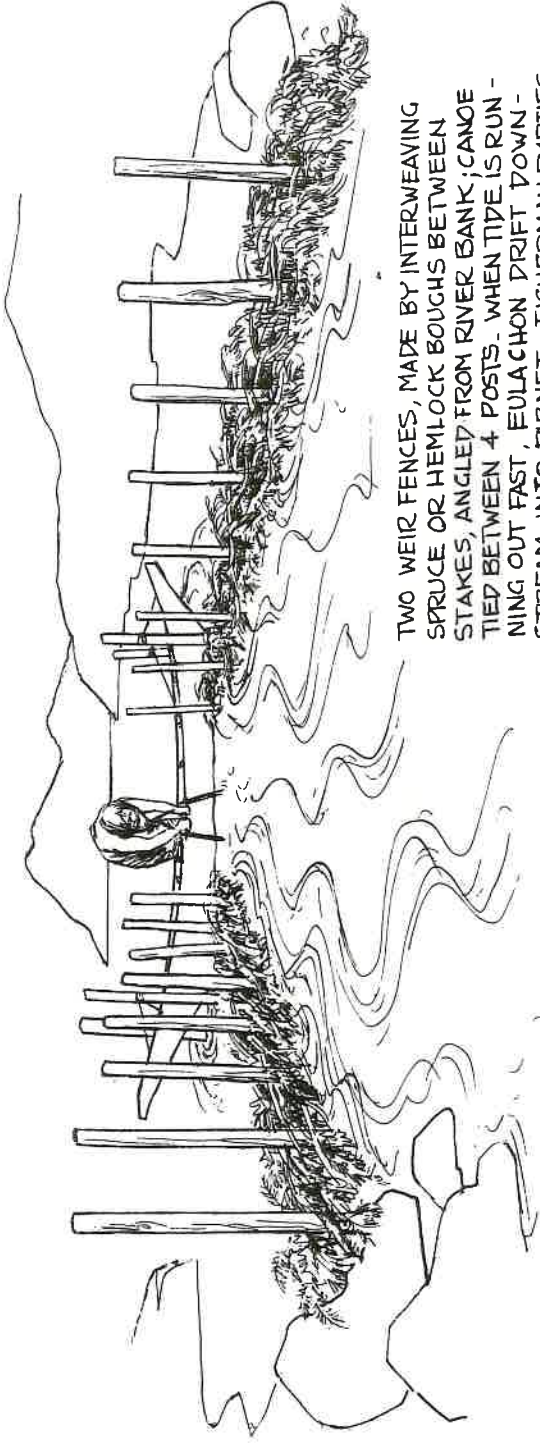
LARGER VERSION OF BAG NET ON LEFT.

BAG NET FOR TAKING EULACHON IN SHALLOW RIVERS. THIS TYPE REVISED AFTER 1860 28.KW



PRONGS SET INTO RIVER - BAG FLOWS OUT BEHIND.

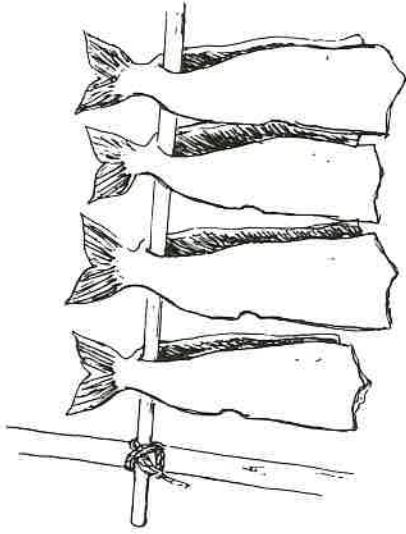
WEIR AND DIP NET.
EULACHON FISHING



TWO WEIR FENCES, MADE BY INTERWEAVING SPRUCE OR HEMLOCK BOUGHS BETWEEN STAKES, ANGLED FROM RIVER BANK; CANOE TIED BETWEEN 4 POSTS. WHEN TIDE IS RUNNING OUT FAST, EULACHON DRIFT DOWN-STREAM INTO DIP NET; FISHERMAN EMPTIES IT INTO CANOE EVERY FEW MINUTES. 28-KW

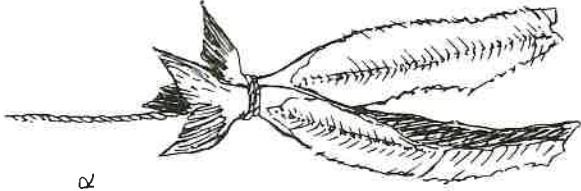
Canoes at Old Songhees, Vancouver Island. Canoe skids on beach facilitate hauling up canoes and protect hulls from scraping on stones. 11.CS



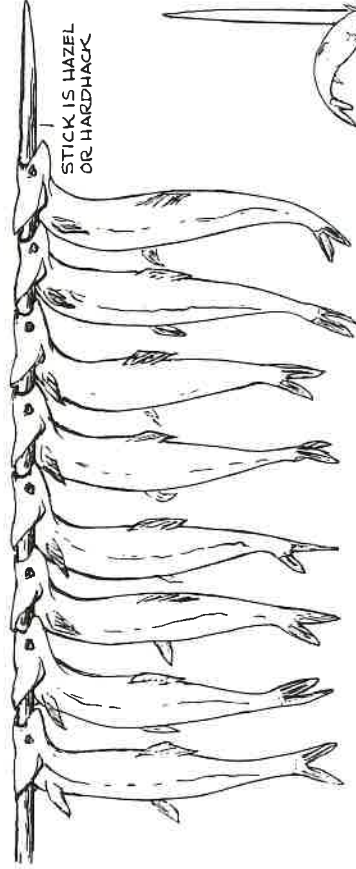


'OLD SALMON', I.E. FROM FAR UP RIVER, IS SLIT IN HALF AND HUNG TO DRY. 2B KW

SALMON BACKBONE AND TAILS DRIED BY HANGING OVER FIRE. WHEN DRY, TAILS BROKEN OFF AND STORED IN ONE BASKET, BACKS IN ANOTHER. 2B KW

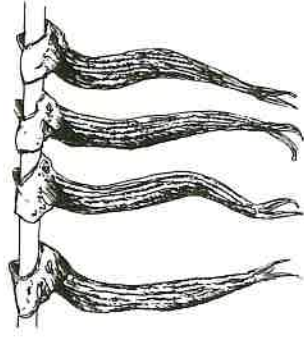


SMOKED EULACHON

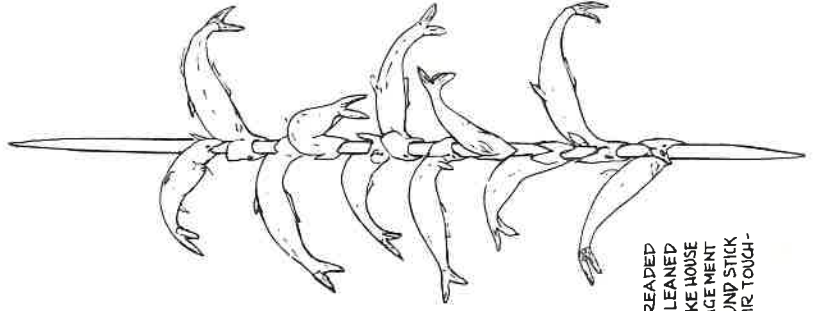


STICK IS HAZEL OR HARDHACK

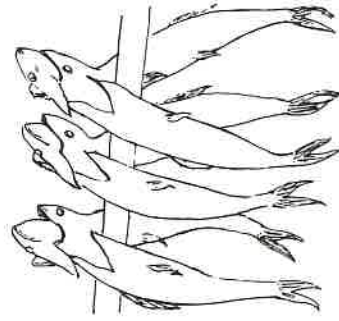
EULACHON, THREADED THROUGH GILL AND MOUTH ON STICKS 1-20 m. LONG, HANG ON DRYING RACK ROOFED OVER WITH BOUGHS. IN GOOD WEATHER, WIND AND SMOKE OF ALDER WOOD FIRE CURE FISH IN FIVE DAYS - 37 CS



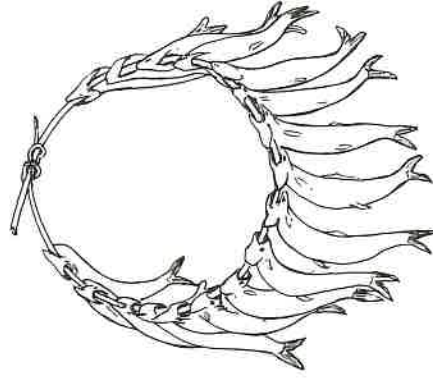
DRIED EULACHON ON STICK. 41 TS



STICK OF THREADED EULACHON IS LEANED AGAINST SMOKE HOUSE WALL - ARRANGEMENT OF FISH AROUND STICK PREVENTS THEIR TIGHTENING. 40 KW



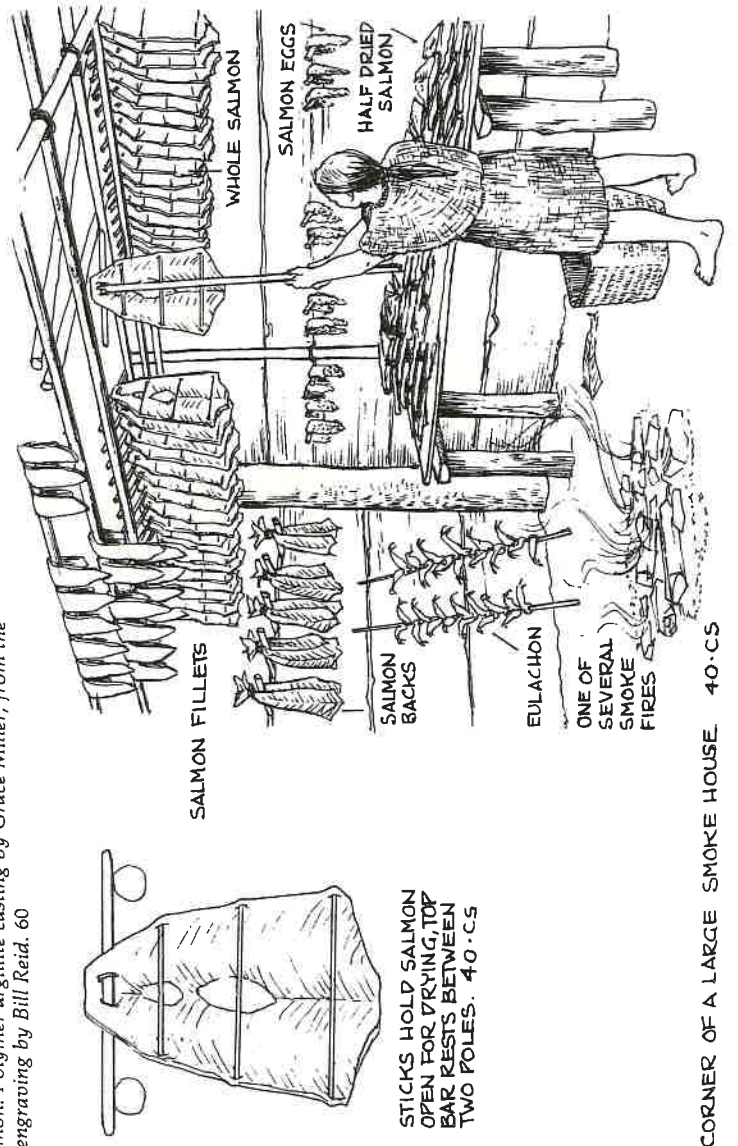
EULACHON HANGING IN PAIRS TO DRY AND SMOKE. ONE FISH IS PULLED THROUGH MOUTH AND GILL OF THE OTHER. 41 TS



EULACHON STRUNG ON SLEMPER CEPAR OR HEMLOCK BOUGHS TIED TO FORM A LOOP ARE HUNG UP IN SMOKE HOUSE 40 KW

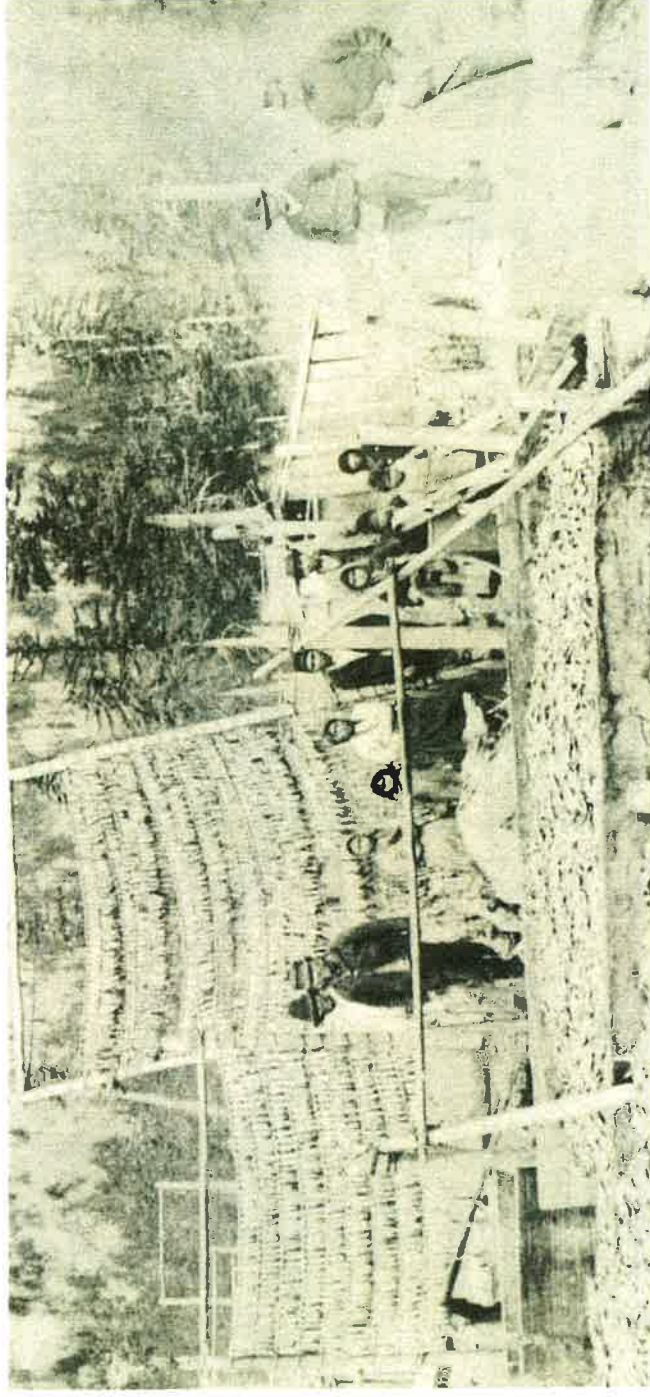


Haida Dog Salmon. Polymer argillite casting by Grace Miller, from the original silver engraving by Bill Reid. 60



CORNER OF A LARGE SMOKE HOUSE 40·CS

Eulachon Oil



Tons of eulachon in large wooden pits left to "ripen" prior to being rendered for oil. In background, strings of fish hang to dry. Fishery Bay, Nass River. Maynard photo. 1884. II.TS

The arrival of the eulachon in spring meant far more than a change of diet, welcome though the fresh fish were. The purpose of catching the fish in such great quantities was for the extraction of their rich and nutritious oil, often referred to as grease.

Villages having hereditary rights to rivers with eulachon runs were able to render large amounts of oil not only for their own consumption but also for trading purposes. Those in villages some distance from such rivers bought temporary rights to fish and render the oil. They encamped by the river until the processing was complete, then returned home with the valuable oil. The

Haida, Tlingit and Nootka on Vancouver Island had neither eulachon rivers nor rights to the fish; consequently they, and others, came long distances to trade for the oil with those who had a surplus.

So much sought-after was the oil that it was traded great distances eastward through the mountains to tribes in the interior. Recent research on obsidian trade routes, conducted by British Columbia archaeologist Dr. Roy Carlson, led to a three-man expedition through the coast mountains to the sea. Evidence from their findings proved that when explorer Alexander Mackenzie made his famous journey overland to the Pacific ocean, he followed one of several ancient trade routes to the coast. Eulachon oil carried along these and

other routes has given rise to the name "grease trails."

The rendering of the oil was a family or community affair; in early spring, camps on the river banks resembled a massive processing plant. Methods of doing some things varied among the different peoples, but in general the process was much the same.

A large pit dug in the ground was filled with eulachon and covered over with logs; the fish were then left to "ripen" for ten days to three weeks, depending on the weather. The warmer the weather, the quicker the disintegration of the flesh that would allow the oil to be released readily. In a large bentwood box, fire-heated rocks were added to water to bring it to a boil, then the rotted fish was put in. As the rocks cooled they were removed, rinsed of fish bits, and returned to the fire for reheating. Fresh hot rocks were then added to maintain simmering, while continual stirring and agitating helped to free the oil from the fish.

After several hours the mixture was allowed to stand. The sediment and liquid sank to the bottom, while the purified oil rose to the top to be skimmed off or ladled out in small boxes with lids.

The canoe that brought in the fish could also become the vessel for rendering the oil. Partly buried in the sand or ground, and supported at the sides with stakes, it served very conveniently as a large container.

With the top oil removed, the residue of mush was scooped up into pliable baskets of woven spruce root. Remaining oil was pressed out with a lever device or by trampling on the baskets in the canoe. Further boiling finally rendered out the very last of the oil.

A three-man canoe filled with eulachon would

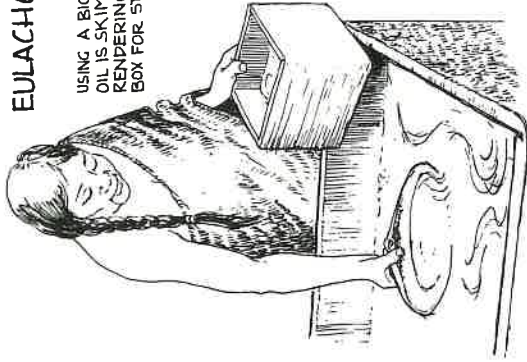
yield between five and six gallons of oil; a fisherman might catch eight to twelve canoe loads of the fish.

As can be imagined, the odour from processing the oil was excessively strong, almost intolerable for unaccustomed nostrils, and the oil had a flavour to match! The late Chief August Jack Khahtsahlano once declared the oil "good medicine": when it was two weeks old it had a mild flavour, at one month it was strong; at two months it was "very strong." The Rev. C. M. Tait, an itinerant minister earlier in this century, recalled an instance when he arrived very late one night at an Indian fishing village:

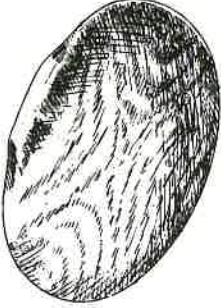
"... I was immediately ushered into the chief's house, and his wife began to prepare food for me. A fresh lot of halibut had just come in and she began to cook. Out came her oolichan box, and the big horn spoon, a sort of great ladle made, I think, from the horn of the big-horn sheep. Of course the more grease—they value it—the greater the honour to the guest. I protested that I was unworthy of so much grease, but without avail. To my chagrin she was lavish, and simply showered her esteem on me by smothering the halibut with grease. I never acquired a taste for it. I am without hope that I ever shall."

Indian peoples relished the flavour and used the oil extensively with their meals. Dried fish, roasted roots, and many other foods were dipped into it, and guests were served the oil in individual bowls, often handsomely carved. Dried berries were mixed with the grease and stored for winter, but even fresh berries were enjoyed with this added ingredient. To eat berries without oil was considered a sign of poverty. Containing iodine and many necessary vitamins, eulachon oil was an important part of the diet.

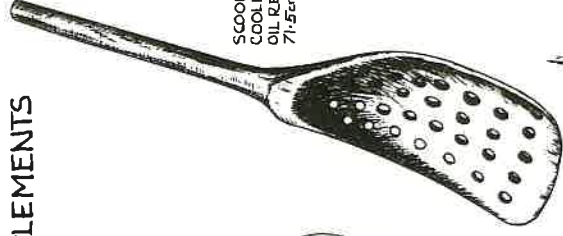
EULACHON OIL RENDERING, IMPLEMENTS



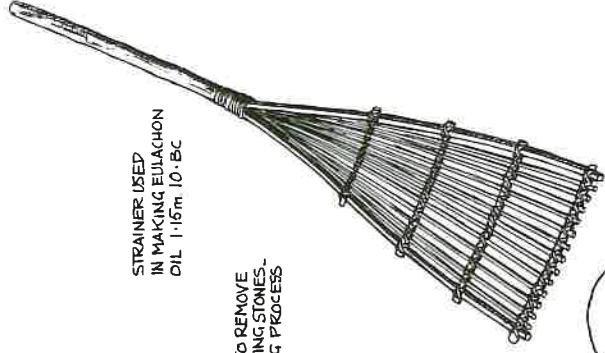
USING A BIG CLAM SHELL, EULACHON OIL IS SKIMMED FROM TOP OF LARGE RENDERING BOX INTO SMALL WOODEN BOX FOR STORAGE OR TRADE. 41-KW



EULACHON OIL SCOOP CARVED IN SHAPE OF CLAM SHELL. 26-0cm, 11" X

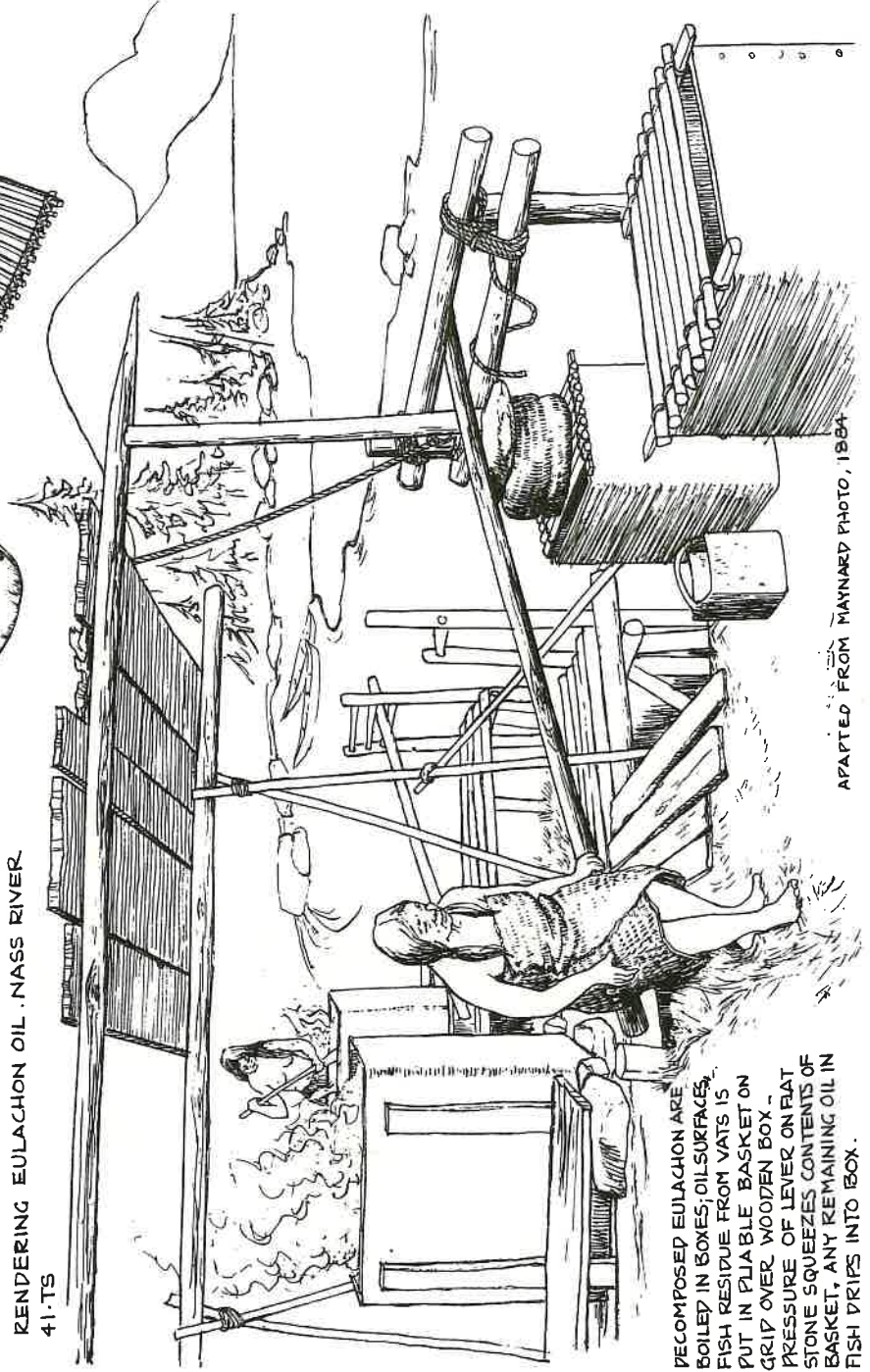


SCOOP USED TO REMOVE COOLED BOILING STONES. OIL RENDERING PROCESS. 71.5cm 19" TL



STRAINER USED IN MAKING EULACHON OIL. 1.16m 10' 8c

RENDERING EULACHON OIL . NASS RIVER. 41-TS



ADAPTED FROM MAYNARD PHOTO, 1884

DECOMPOSED EULACHON ARE BOILED IN BOXES; OIL SURFACES. FISH RESIDUE FROM VATS IS PUT IN PLIABLE BASKET ON GRIP OVER WOODEN BOX. PRESSURE OF LEVER ON FLAT STONE SQUEEZES CONTENTS OF BASKET; ANY REMAINING OIL IN FISH DRIPS INTO BOX.

RENDERING EULACHON OIL

ADAPTED FROM EARLY PHOTO

COVERED PIT FOR EULACHON TO DECOMPOSE

BASKETS FOR PRESSING OUT OIL FROM RESIDUE

CANOE PARTLY BURIED IN SAND TO HELP STABILIZE IT. STAKES & CORD HELP IT SECURE.

CANOE FILLED WITH FISH, WATER

[CENTRE] COOLED STONES PUT ON RACK OVER CANOE. OIL AND FISH BITS RINSED OFF BEFORE REHEATING.

LAPLING OIL

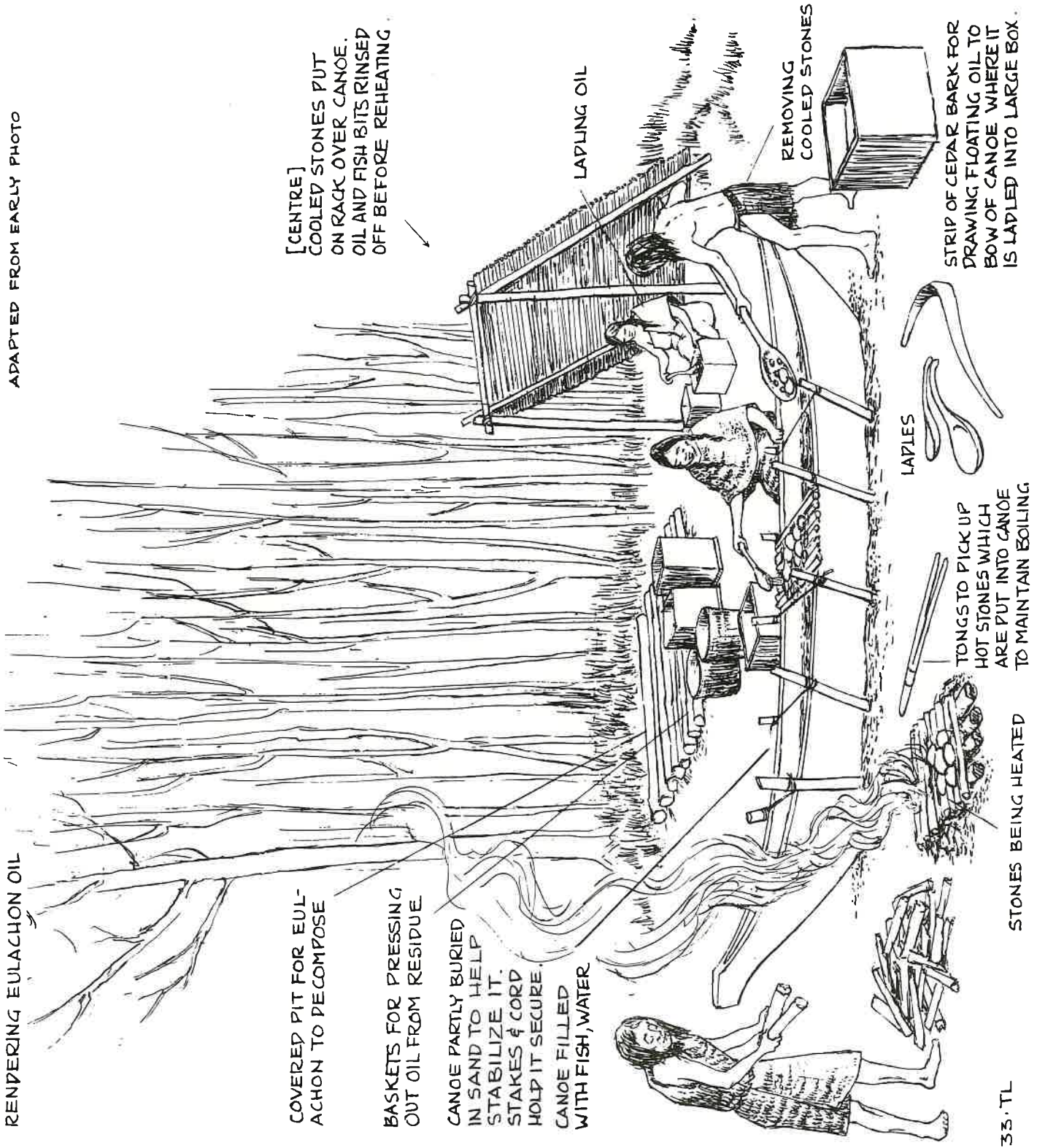
REMOVING COOLED STONES

LAPLES

TONGS TO PICK UP HOT STONES WHICH ARE PUT INTO CANOE TO MAINTAIN BOILING

STONES BEING HEATED

STRIP OF CEDAR BARK FOR DRAWING FLOATING OIL TO BOW OF CANOE WHERE IT IS LAPLED INTO LARGE BOX.



Stopping off at Hot Springs Island, in the Queen Charlottes, I once had an unexpected opportunity of tasting eulachon oil. A Haida family were staying in their summer cabin close to the springs and graciously offered us the use of the bath house they had built incorporating the hot mineral water—a luxury for us after weeks of boating and beach camping. They also invited us to lunch and for the first time I tried steamed mussels and discovered how delicious they were. On the table was a jar of what, in our ignorance, we thought to be honey with its whitish, semi-crystalline appearance. Fortunately our hostess did not allow us to use it as honey, for it was eulachon oil. She did give us the opportunity of experiencing the taste but, like the good reverend, I am without hope that I could ever get to like it.

Oil rendering was not a process exclusive to the eulachon, although eulachon excelled as a source. The Haida, who were without this oil unless they traded at the Nass River for it, boiled quantities of black cod and skimmed the oil that came to the surface. On the Fraser River, the Coast Salish extracted oil from salmon by putting whole fish in wooden troughs which were left in the sun.

When the fish decomposed the oil seeped to the bottom.

The dogfish, with its large, oil-rich liver, was also rendered for its oil content, though not aboriginally. In the early days of sawmilling in Vancouver, Indians caught dogfish off Point Grey, extracted the oil in big kettles on Deadman Island (just inside the present harbour), and sold it to the sawmills. Similarly, the Nootka had a small industry going in the 1880s. They sold the oil to logging outfits, who used it as a lubricant on the timbers over which logs were skidded to bring them out of the woods.

Still manufactured by several families with access and rights to eulachon fishing, the oil continues to find a market up and down the coast. It is now sold by the gallon and the price is high, testifying to its continued demand. In 1968, in the Charlottes, it was \$25.00 per gallon; some years later it was selling for \$35.00. The price on Vancouver Island in 1976 for oil from Alert Bay reached \$50.00 per gallon, but to those who still treasure this important and nutritious food supplement, it is worth it.

PUT
ANOE.
RINSE
EATING.

DIL

ING
STONES

NG
STONES



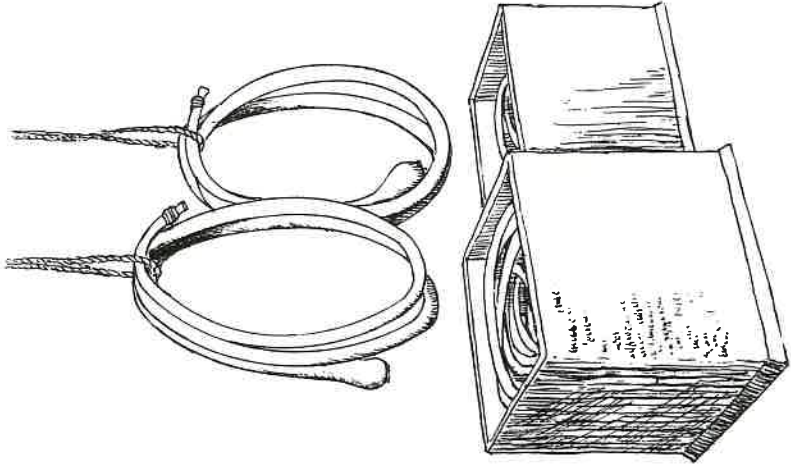
OK FOR
OIL TO
HERE IT
GE BOX.

Kelp Bottles for Eulachon Oil

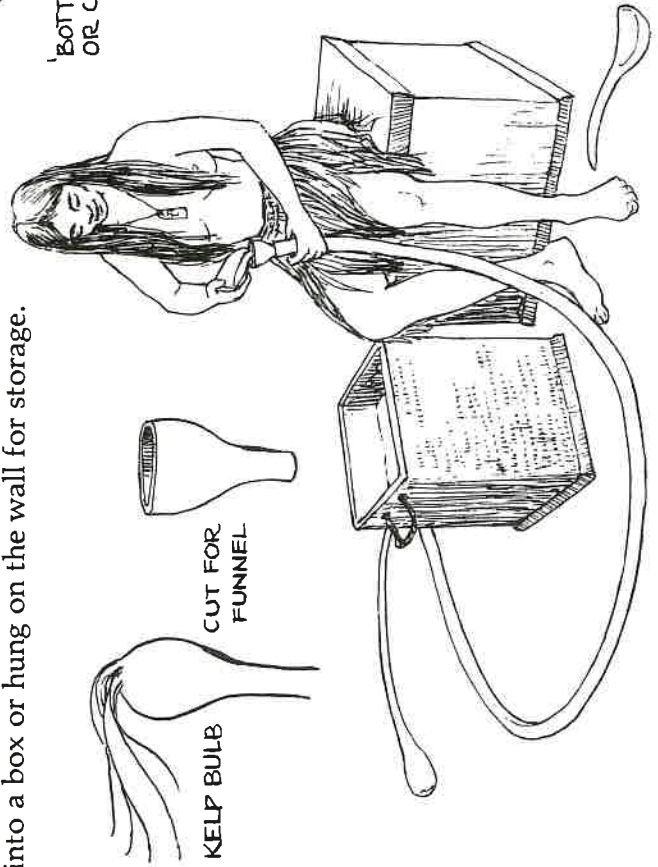
A lightweight storage container for eulachon oil was made from the long kelp stems that grow best in a strong current. These were harvested in the fall on a low tide when they were most accessible. With the leaves of the seaweed cut off, the stipe (stem) was scraped with a section of cockle shell cut to fit its curvature. Dried on a rack over the fire for two days, the stipes were carefully tended to ensure even shrinkage.

To test for airtightness, the stems were inflated and the open end plugged with a wooden stopper and lashed tightly into place. Those that did not leak air were further dried and bleached before being deflated and stropped around a stake to soften them.

A funnel made by cutting the top off a kelp bulb was used for filling the long stems with eulachon oil. Kelp bottles of oil were coiled up into a box or hung on the wall for storage.



'BOTTLES' OF OIL ARE HUNG ON WALL OR COILED IN BOXES FOR STORAGE.



KELP 'BOTTLE' FOR EULACHON OIL
28 KW

HOLLOW LENGTHS OF GIANT KELP ARE SPECIALLY PREPARED TO SERVE AS STORAGE CONTAINERS. OIL IS Poured THROUGH FUNNEL (CUT KELP BULB) WITH LAVLE OR SHELL TO FILL TUBE. OPEN END IS PLUGGED AND TIED.