WHALING

AND

WHALING EQUIPMENT

WHALING AND WHALING EQUIPMENT

Virtually everyone visiting the Nootka Sound area was impressed by the whaling efforts of the Yuquot Nootkans, especially since their equipment seemed inadequate for the awesome task. But whale they did and on a fairly regular basis during spring and early summer. Even though they were often unsuccessful, when they scored not only did the chief whaler's prestige increase considerably, but also a great quantity of food was made available during a time of year usually known for its relative scarcity of consumables. The importance of whaling is further indicated by the constant references to great whalers in Nootkan legends and myths.

EARLY EXPLORERS

Cook and his men were impressed with the Nootkans' ability to hunt and kill whales. Although whether or not the British actually saw Nootkans pursue or harpoon a whale is not recorded, they did glean sketchy descriptions of the hunt and the equipment from little-understood conversations, whaling scenes depicted on Nootkan hats and clothing, and observation of the whaling equipment.

The Nootkans' whaling harpoon was a 12-ft. to 15-ft. long shaft cut into a wedge at one end. The wedged end was set into the socket of a barbed harpoon point about 6 in. long made of two large whalebone barbs lashed together to form an inverted "V" at the base. An oval sharpened mussel shell blade was fixed between the barbs with a sinew resembling catgut and resin. The resin was also used to fill the concave side of the shell point so both sides were smooth and symmetrical. About two or three fathoms of sinew line almost an inch thick were attached to the head of the harpoon and the shaft. Several inflated bladders made of sealskin and possibly whale intestine were attached to the line further down its length and at the end of the line was an eye to which another line could be attached. Porpoises and, in one case, sea otters were hunted with a similar but smaller harpoon.

Men in as many as ten canoes pursued a whale. When the harpoon was forced into a whale, the shaft separated from the head and floated on the water like a buoy. The sinew line and attached bladders remained connected to the head. The canoes, apparently lashed together by a line the occupants held, followed the harpooned whale until it tired from its wound and the effort of trying to pull the bladders down when it dove. Then the hunters killed it with more harpoons and whalebone spears and towed it ashore. The hunters also used a spontoon-shaped iron spear to kill whales, probably after they had been harpooned (Ellis 1783: 221-2; Ledyard 1783: 77; Cook 1785: 328-0; 1967: 321, 1103, 1324-5, 141901; Zimmerman 1930: 74; ATL; BCA, a).

Henking described and illustrated a whaling harpoon and line apparently collected from the Nootka Sound area during Cook's visit (Cook 1967: 1324). The harpoon head was 16.5 cm. long, had an elongated oval shape and was formed by two bone barbs with broad rounded tips between which was a mussel shell point 11.2 cm. long. The barbs and mussel shell point were lashed together with "animal skin" coated with a resinous substance to bind the harpoon head together firmly. A very strong line, 586 cm. long, was attached to the harpoon head underneath the binding. The core of the line was formed by three thick ropes of an unidentified material, each rope formed by thinner, twisted cords. The three thick ropes were bound together by cords of "animal tendons"; wide cords were used near the harpoon head and narrower ones some distance from the head. The line ended in a loop formed by what the translator referred to as "knotting," but the end of the line was actually turned up and lashed to a point near its terminus with the same animal tendons that encased the entire line. Henking described another harpoon almost identical to the one described above except that the barbs were made of "walrus tusk" and the shell point was missing (Henking 1957: 369-70).

EARLY TRADERS

Unfortunately, Strange merely listed a few unidentifiable terms for Yuquot Nootkans whaling gear; however, Meares's

records were much more complete. According to him the harpoons the Yuquot Nootkans used for whaling and taking other sea mammals except otters had a shaft from 18 ft. to 28 ft. long. A large bone "cut in notches" was spliced to one end of the shaft and served as a "secure hold for the harpoon" fastened to it with thongs. The harpoon point was formed of a large oval mussel shell, sharpened on both sides, set into another piece of bone about 3 in. long to which a line made of sinews of different animals was lashed. The line, several fathoms long was also attached to the harpoon shaft. The shaft floated after the whale was struck, supported by the air-filled seal skins or fish bladders attached to it. Meares was apparently describing a harpoon formed of a wooden shaft, a notched bone foreshaft with a composite harpoon head formed of a shell blade and two bone halves serving as barbs. (His description implies that the harpoon shaft was used as a drogue.) (Meares 1791, 2: 52-3).

The Yuquot Nootkans preferred to hunt "those small whales with hunches on their backs, as being the most easy to kill." Whales were hunted in all kinds of weather. In preparation for the hunt, the chief dressed in sea otter skins, smeared his body with oil and daubed it with red ochre. Only the bravest, most active and vigourous men in his service accompanied him. The whaling canoes were large enough to hold 18 or 20 men; they were smaller than war canoes, but larger than those used ordinarily.

The chief, as principal harpooner, was the first to strike the whale. The harpooned whale dove, carrying the shaft and all the attached bladders with it. The chief and his companions in several other canoes of the same size as the chief's followed the whale and when it broke surface, used their harpoons until the whale could no longer dive because of the large numbers of buoys attached to the harpoons. After the whale drowned or died of some other cause, it was towed to shore amidst shouts and general rejoicing. The whale was butchered immediately, part of it eaten at a feast and the remainder divided among those who had participated in the hunt (Meares 1791, 2: 22, 53-4).

SPANISH OCCUPATION

According to Haswell, the whaling harpoon had a 9-ft. long shaft. The butt of the shaft was as thick as a man's arm, but tapered toward the other end fitted into a small socket in the harpoon head. The harpoon head, formed by a strong mussel shell point, was attached to barbs with "gum and worp" made of whale sinew. The attached line was also made of whale sinew. A number of seal skins turned inside out and inflated served as buoys and prevented the whale from diving too deeply (Howay 1941: 66).

Ingraham generally described harpoons as made of bone or mussel shell fixed into a bone shank. Although most of the Yuquot Nootkans' lines were made of kelp or cedar bark, those used for whaling were made of whale sinew, were about as thick

as a man's thumb and generally were not more than five fathoms long. One end of the line was attached to the harpoon and the other to a bladder. When the harpoon entered a whale, the shaft separated from its socket and the harpoon point remained in the whale, the line connecting it to a bladder.

The most expert young whalers and six companions would paddle some distance from shore near the entrance to the sound. As soon as they sighted and struck a whale, a lookout onshore alerted the men of the village who rapidly launched 30 to 40 canoes and went out to assist the crew who had harpooned the whale. As each of the arriving canoes approached the whale as it came up to breathe, the men struck it with harpoons. When the whale could no longer dive, it was killed with more harpoons and spears, then towed ashore (AGN, 65/18).

According to Mozino, the Yuquot Nootkans' whaling canoes were not quite 15 ft. long (along the bottom), were slightly less than 2½ ft. wide and only held three or four men. When the hunters approached a whale, one threw a harpoon mounted on a heavy shaft. The shaft was withdrawn from the imbedded harpoon head by a cord attached to it and at the same time another hunter threw his harpoon. A line linked this harpoon to an inflated bladder. Nothing the Yuquot Nootkans hunted was more profitable to them or was more solemnly celebrated than a whale. The chief was present at the distribution of the catch and then gave a feast for all the village residents (Mozino 1913).

Eliza and Pantoja described a whale hunt in which 20 or 30 canoes of hunters participated. The hunters surrounded the whale and a man in one of the largest canoes threw the first harpoon. One end of a cedar bark line 2½ in. thick and 50 fathoms long was attached to the harpoon and the other end of the line was attached to an inflated sealskin buoy. Each buoy was painted with the chief's mark so the chief to whom the whale belonged could be identified if the whale eluded the hunters but died and came ashore in a territory not belonging to that chief. The chief who owned the dead whale invariably presented a gift to the chief who had rights to the area where the dead whale was found. The writer of the Log of the Chatham added that whaling was not limited to the sea coast, but extended to the various inlets where many whales were found. The Yuquot Nootkans preferred whale flesh although they also hunted seals and porpoises (AGN, 69/7; PAC, MG 12 A, Adm 55/17; Wagner 1933: 161).

SPORADIC CONTACT

According to Jewitt (and most before him) the harpoon head used in whaling was formed by two bone barbs with sharpened outer edges. A space between the two barbs formed a socket into which the shaft was placed. The barbs were firmly lashed together with whale sinew and their tips fitted to hold the sharpened mussel shell point secured with pine resin. A 9-ft. long whale sinew line was attached to the harpoon head and a

cedar bark line from 50 to 60 fathoms long was attached to the first line. Twenty to 30 sealskin floats were attached to the second line at intervals. The harpoon shaft was a pole about 10 ft. long and thicker at the middle than at either end. The harpooner detached the shaft from the harpoon head as soon as he struck a whale.

Jewitt was not overly impressed by the Yuquot Nootkans' whaling skill which is understandable considering the many times Maquinna and others went whaling and the few whales they took. Even before arriving at Yuquot, Maquinna would prepare for whaling by spending all day on top of a high mountain singing for whales to come so he could kill them. During the whaling season, from about mid-March to about the middle or end of May and sometimes as late as mid-July, Maquinna went whaling almost daily. He spent so much time in this pursuit that Jewitt and Thompson made him a tent of one of the Boston's sails so he could "look out for whales" in comfort. However, Maquinna's luck was not good. During the two and one-half seasons Jewitt observed the whaling activities of Maquinna, his brother and others from Yuquot privileged to hunt whales, Maquinna went out 53 times, struck and lost 8 whales and killed 1 (Jewitt 1807). On three occasions Maquinna struck a whale, but his harpoon "drawed." On two other occasions Maquinna struck a whale, but lost it when his line parted. Once his mussel shell harpoon point broke when he struck a whale. On another hunt he had to cut his line

after successfully harpooning a whale because his was the only canoe made fast to the whale and it was being pulled underwater, endangering Maquinna and his crew. On another occasion Maquinna's harpoon shaft broke. Other Yuquot Nootkan chiefs killed four whales during the same time period.

Whenever Maquinna lost a whale, he returned to Yuquot in a bad humour and accused his men of having violated their obligation to practise sexual continence in preparation for whaling. He gave Jewitt and Thompson little to eat during these periods which was a double hardship for them because the women were not allowed to cook while the crew was out whaling. In an attempt to remedy Maquinna's problems with breaking whaling gear and thereby placate him, Jewitt made steel harpoon heads for Maquinna and his chiefs. One proved to be an immediate success and Maquinna gave Jewitt 100 pounds of blubber in thanks. Jewitt and Thompson also spent several days making new lines -- apparently of European materials -- but whether or not these were superior to Yuquot NOotkan lines was not recorded. Jewitt also made steel lances about 18 in. long for lancing whales when they tired and were more approachable, and a large spade to cut the whale's fins.

When Maquinna finally took a whale using Jewitt's steel harpoon, a lookout standing on the headland alerted the villagers. With great rejoicing the men launched 40 canoes and, equipped with harpoons and sealskin floats, went out to assist in buoying the whale up and towing it in. As soon as the canoes appeared

at the entrance to Friendly Cove, the crews singing a slow, triumphal song to which they kept time with their paddles, the people on shore climbed onto the houses, drummed furiously on the roof planks and shouted "Wocash - Tocash Tyee!" to congratulate Maquinna. The whale was butchered as soon as it was drawn ashore and Maquinna gave a great blubber feast at his house to which he invited everyone in the village. Because of their extreme hunger in the post-winter season of scarcity, everyone ate to excess. Maquinna (ritualistically) hung 100 pounds of whale blubber over the place where he slept (Jewitt 1807: 11, 19, 21, 36; 1896: 122-3, 178-80, 212).

EUROCANADIAN PERIOD

Drucker's respondents supplied him with much more data on whaling in the late historic period than are available in ethnohistories. Although Drucker's data basically agree with the early accounts, there are a few differences in details such as number of crew, canoe size and length of harpoon shafts and lines. During the late historic period, the whaling canoe was said to be from five to six fathoms long, not a smaller canoe like the one Mozino described. A whaling crew was formed of eight men: the harpooner who stood in the bow of the canoe, a steersman and six paddlers. The harpoon sealskin floats, line and line baskets and boxes of food and water were neatly stowed in a particular order in the whaling canoe.

The whaling harpoon shaft Drucker described was three fathoms long and formed of two or three pieces of yew wood spliced together, (in a technique not previously recorded in the ethnohistories). The harpoon head was basically the same type as described at contact as were the lanyard and line. As Drucker inferred, the use of a line basket as a drogue did not seem to have been an aboriginal feature; however, the harpoon shaft may possibly have served this purpose during the early historic period.

Harpoons were thrust (not thrown) by a chief who aimed for a point just behind the whale's left slipper when the whale was submerging, its flukes being underwater at this point. After a second canoe approached and the harpooner in it thrust another harpoon into the whale, the whalers recovered the whaling lines marked by the sealskin floats and either attached the drogue-like basket at the end of the line or held onto them (as so often pictured on Nootkan hats), making their prey tow them. When the whale finally died and was towed ashore, the whaler directed the butchering and gave a feast. The whaler's "saddle" was the first piece to be removed from the carcass. Other portions were given to the various men who had helped kill or tow the whale. The whaler also gave pieces of blubber to members of his own group in order of their potlatch rank. Maquinna usually received 600 pounds of blubber on these occasions (Drucker 1951: 27-31, 48-56; 1965: 132-44).

No one now living in Yuquot can remember anyone going out whaling. They can only recount the appearance of a few dead whale that had drifted shore over the past many years. They marked this event by hacking a few strips of blubber off the carcass.

DISCUSSION

Although Drucker considered the prestige value of whaling to outweigh its economic importance, this is difficult to believe. Whaling did indeed have "prestige value," but almost every visitor to Nootka Sound remarked on the great quantities of whale blubber or train oil available there. Even the few poor whaling seasons Jewitt described apparently did not seriously diminish the amount of train oil available to the Yuquot Nootkans. It must have been available from other areas on the coast where whalers were having better luck than Maquinna and his crews.

Although it is at times difficult to explain the different lengths given for such things as whaling canoes and harpoon shafts, the former discrepancies may be due to more than one type of canoe being used for whaling on different occasions due to one inexplicable reason or another. The different lengths for the harpoon shafts may be the result of a journalist describing the wrong harpoon shaft or estimating size inaccurately. The descriptions of the hunt were, however, basically the same through time. In essence,

a chief was the harpooner and skipper of a canoe steered by an older uncle or someone similar and paddled by lower ranking members of the chief's household. Preparations for the hunt were as exhausting as the actual encounter, making the Nootkans not only well prepared but equal to the task of actually harpooning and killing the earth's largest mammals.

SUBSISTENCE

Horticulture and Animal Husbandry

There is no indication that the inhabitants of the Nootka Sound area practiced any form of horticulture or animal husbandry until sometime during the late 19th century. ~~This is not to say that~~ they did ~~not~~ consume plants, plant products, or ~~the~~ flesh and ~~the~~ by products of animals but ~~only that they~~ did nothing to protect or control their growth other than thinning out both plant and animal life periodically during the normal practice of collecting and hunting both for food ~~purposes of consumption.~~

When the Yuquot Nootkans first began to practice horticulture, a task performed mainly by women, is not known, but it was before 1863.

Jewitt noted onions, peas and turnips at Yuquot. The peas and turnips were quite small, particularly the turnips which were only good for their greens. (1896:96).

later visitors introduced ~~this concept~~ horticulture to NS although there is no record that the indigenous inhabitants practiced it themselves until the late 19th century.

SUBSISTENCE

Neither the inhabitants of Yuquot nor the people living in the Nootka Sound area practiced any form of horticulture or animal husbandry ~~when Cook and his men visited and described them~~ in 1778 (Cook 1967: 318, 1404; BCU, a). Therefore, their subsistence had to come from the sea, land and air. Although it is at times difficult to learn from the ethnohistorical record exactly what the Nootkans fished, hunted, collected, gathered and ate, a general impression emerges from the data that is pretty much in agreement with more recent ethnographic material. As will be noted, there are, however, several important differences. Besides listing just those flora and fauna consumed or apparently consumed by the Nootkans, I have also included other plants and animals ~~xx~~ mentioned in the texts so that all of this material is located in one chapter. ~~At times~~, it is not always mentioned in the early ethnohistories, ~~exactly~~ what items were or were not eaten. An attempt has, therefore, been made to break the listings down into three categories: those items listed as being eaten, those that are edible according to modern authorities, and those listed as not being eaten by the Nootkans or considered not to be edible by modern authorities.

To reduce the repition of listing various items, some are mentioned only the first time that they appear in the journals.

Although most of the flora and fauna described by Cook and members of his crews are identified in Beaglehole's edition of these journals (1967), all of these and other identifications have been checked. If any discrepancy was noted, the identification has been changed without ~~any~~ explanation ~~given as to why~~. It was not possible, ~~however~~, to identify all the foods listed, but at least 98 per cent of them have been identified with reasonable accuracy. At times, an entry may, for example, appear to be one thing but ~~in~~ reality refer to another item. The best example of this is what I infer to be the oftentime reference to pilchards as sardines. Some of the plants mentioned in the texts are listed as introduced species because they are so described in the numerous publications referred to when trying to identify the flora. Natalie Stoddard has graciously checked ~~all of~~ the flora identifications made in Beaglehole's volumes and those made by me besides identifying Mozino's entire list of flora supposedly identified by him on the North Pacific coast. Howard Savage's list of the mammals inhabiting Vancouver Island was used to identify those described in the texts and Nancy McAllister was kind enough to check the bird identifications. corrected the fish identifications and Arthur Clarke, the shells. ~~It should be noted here that~~ no attempt has been made to

correlate the faunal skeletal material recovered archaeologically from Yuquot with that described in the ethnohistories for two reasons. First, not all of the archaeological identifications had been made at the time of this writing and secondarily, it ~~would~~ seemed ~~better~~ to leave this type of comparative work for that volume of the Yuquot project dedicated specifically to this type of material and these types of problems. ~~While on the subject of problems, it is of interest to note that~~ before European exploration on the west coast of Vancouver Island, the Nootkans possessed no form of alcoholic beverage. When offered a drink by ~~Captain~~ Cook, they rejected any type of alchoholic beverage as "unnatural and disgusting" for the first and perhaps the last time.

~~Food eaten by~~ the Nootkans ate ~~was~~ "everything animal or vegetable." they could procure but the ~~quantity of the~~ former formed an exceedingly larger portion of their diet than the latter. Their diet during the spring of 1778 consisted of fish supplemented by sea and land mammals, birds and to a lesser extent, plantlife collected on land and offshore. Their subsistence from the sea consisted of fish, mussels, smaller shellfish and sea mammals. The principal fish noted during the spring of the year were herring about 7 in. ~~seven inches~~ long and

which were eaten
sardines, both fresh and smoke-dried. Moreover, Great quantities of herrin

and salmon roe were formed into blocks described as being used like bread.
~~There were also~~, in order of importance, two species of bream weighing one

pound when fully grown, a small cod (either fresh or sun-dried) and halibut ~~that w~~

~~eaten by the Nootkans~~. Fish noted in small quantities and probably eaten b

the Nootkans were a small ~~brwn~~ brown kind of sculpin (Cottidae) like those found on th

coast of Norway; another of a brownish-red cast; "frost-fish"; a large fish

~~somewhat~~ resembling a ~~the~~ bullhead with a tough, scale-less skin; and ~~now and~~
~~then~~ occasionally the Nootkans brought to the ships ~~out a~~ small, brownish cod spotted with white; a

red fish of the same size, and another type ~~of~~ closely resembling ~~the~~ hake. There were

a considerable number of chimaerae, or little sea wolves, related to and

about the size of the pezegallo or elephant fish. Cook also noted some

pieces of rays or skates, a very large cuttle fish and ~~the~~ teeth of sharks' in the possession of the Nootkans' (Cook 1785:298-9, 320).

According to Clerke, however, the ~~max~~ principal and most abundant fish

noted among the Nootkans were ~~species~~ a type of roach or dace ~~fish~~ that were 5 in. 14 in.
long and a smaller ~~one~~ fish resembling a sprat. There were two ~~species~~ varieties of the

former fish: one was a dark brown ~~colour~~ with a bright yellow or rather go

tinge ~~which was~~ more visible toward the belly of the fish and the body was

variegated with oblong spots of blue. Beaglehole (in Cook 1967:1324) ~~xxex~~ identified it as a Sea Perch, Embiotoca lateralis. The other species of roach or dace ~~was described by Clerke~~ (Cook 1967:1324), as very like the English bream, so much so that he thought it a variety of the bream. Beaglehole thought this fish was probably another of the sea perches, but was unable to identify it further. The smaller fish resembling a sprat was ~~thought by him to be~~ an anchovy ~~with the characteristic markings of that fish~~ because its upper jaw was much longer than its lower. ~~The xxxx~~ sprat has the opposite characteristic. Beaglehole identified it as the Engraulis mordax.

Among several other fish Clerke saw ~~every now and then~~ in much smaller quantities than those described above was a small rock cod (with a strong, rank smell) ~~which~~ whose flavour was not considered comparable ~~in flavour~~ to that of the other fish Beaglehole identified it as the Gadus macrocephalus. Another was the elephant fish, ~~described as~~ the "ugliest and most uncouth form'd fish [Clerke had ever saw" and which Beaglehole identified as the Ratfish, Hydrolagus colliei. A third type of fish was a small, fine, red perch type of fish of which Clerke saw only two. This was identified as probably being the Red-tail Sea Perch, Holconotus rhodoterus.

Next in order of importance in the Nootkan diet were large mussels foun

observed among the Nootkans whose flesh and blubber was also eaten at times dried or boiled was the porpoise, phocena. Large quantities of whale flesh fresh and dried, blubber and oil were also consumed by the inhabitants of t. Nootka Sound area (Cook 1967:1324). Fur seal, Callorhinus ursinae cynocephalus, and sea otter, Enhydra lutris lutris, were thought to be consumed by and their skins were plentiful among the Nootkans as were a great many "implements" designed to catch these mammals. Only a few fresh skins and only a few of flesh were brought out to the ships which led Coc to infer that although the Nootkans depended upon these mammals, they were n obtained in great quantities at all times of the year.

Although a great many different types of cured land mammal hides were also noted, neither Cook nor his men saw or obtained the flesh of any of them. They did, however, sight raccoons, two or three martins and squirrels, Tamiasciurus hudsonicus lanuginosis, and Rickman mentions some venison (Cook 1781:237). The hides they saw included bear, Euarctos vancouveri; elk Cervus canadensis roosevelti; deer, Odocoileus hemionus columbianus; wolf, Canis lupus crassodon; fox, Vulpes fulvus and two others; raccoon, Procyon lotor vancouverensis; wildcat, maybe the cougar, Felis concolor vancouverensis; lynx, probably Lynx canadensis; mink, Mustela vision euagor; martin,

Martes americana caurina; squirrels, Tamiasciurus hudsonicus; ermines, Mustela erminea; marmosets, Marmota vancouverensis; beavers, Castor canadensis leucodontes; otter (possibly land otter), Lutra canadensis pacifica; "sables" and "hares". There were no brown rats, hogs, dogs or goats. (Ellis 1783:190, 210; Ledyard 1783:70; Cook 1785:270, 292-4; 1967:309, 1098, 1403; ATL; BCU, a).

Birds in the Nootka Sound area, were not only rare as to different species but they were also few in numbers. The ones Cook saw (1785:296-8) were so shy that he inferred that they were probably constantly "harassed" by the inhabitants of the sound, perhaps to procure them as food and certainly to obtain their feathers for ornaments.

The birds most commonly hunted and presumably consumed by the Nootkans were gulls and sea fowl pursued with bow and arrows (Cook 1785:322). Other birds noted by the Europeans and probably eaten by the Nootkans were wild ducks and geese plus others. The gulls were perhaps, according to Beaglehole's comments on Clerke's bird list (Cook 1967:1330-1), the immature Western Gull, Larus occidentalis, and probably the Glaucous-winged Gull, Larus glaucescens. There were two or three species of duck according to Clerke, the Mallard, Anas platyrhynchos; the red breasted Goosander, identif-

ied in Beaglehole as the Red-Breasted Merganser, Mergus merganser. The gee were probably the Black Brant, Branta nigricans. The eagles referred to were probably the Bald Eagle, Haliaetus leucocephalus; the hawks probably a Buteo hawk, perhaps Buteo borealis; the crows were probably the North-weste Crow, Corus brachyrhynchus ceuvinus; and the ravens, the Corvus corax almos certainly, but perhaps C. stelleri. It is possible that the Nootkans ate the ash coloured Sandpiper, Limonites minutilla. They were generally seen in flocks of thirty or forty. Its flesh was very delicate with a flavour like Ruff according to Clerke, indicating that if the Nootkans did not eat the Sandpiper, Clerke at least did.

The swans flying over Nootka Sound, according to Beaglehole's sources, may have been the Whistling or Trumpeter Swan. Also listed were the albatrosses, probably the Blackfooted Albatross, Diomedea nigripes, and the Short-tailed Albatross, D. albatrus, but no mention was made of these last birds being eaten by the Nootkans nor were those listed below (Cook 1967: 309-10).

Although it was not mentioned whether or not the birds were eaten by the Nootkans, there noted were the numerous Jackdaws, probably Corus monedula, particularly common around houses in the villages visited; by King the Titmouse; possibly the Red-breasted Nuthatch, Sitta canadensis; wrens;

the winter wren, Troglodytes troglodytes; jays or magpies, probably Steller Jay, Cyanocitta stelleri; the red-breasted migrating Thrush, almost certain the North American robin, Turdus migratorius; the crimson-throated Humming Bird, Selasphorus rufus; and possibly the Calliope Humming Bird, Stellula calliope. Pieces of the dried skins of hawks, herons and the alcyon or lar crested American Kingfisher were brought out to the ships by the Nootkans. Two species of woodpecker, finch-like birds, quebranthuesos, lumme or diver ducks, a plover ~~which~~ differed little from the British sea lark and a bird about the size of a lark which bore a great affinity to the burre were also noted. Clerke mentioned the Godwit which was the Pacific Godwit, Limosa lapponica baueri. (Cook 1967:310, 1330-1, 1403; 1785:296-8).

Besides the above ~~listed~~ animals, ~~there~~ were brownish water lizards, ~~ta~~ 2-ft ~~feet~~ long newts and harmless snakes with whitish stripes on the back and sides, four or five different "sorts" of butterflies, many "humblebees", som common gooseberry moths, two or three sorts of flies, a few beetles, some mosquitoes and lice. Clerke ~~said~~ that the Nootkans ate the lice taken from their hair. (Cook 1785:300; 1967:1326, 1404).

Section 3:
Social Processes and Cultural Trends

Historical Development

HISTORICAL DEVELOPMENT

The historical development of the Nootka Sound area is extremely complex, not only because rights to house and village sites, rivers, and whole areas changed hands through time, but also because each household lineage seems to have a different version of these events. Sometimes life-long friends from different household lineages do not know each other's traditions, concentrating on and remembering only stories of their own household lineage. Although previous investigators' data do not always agree with mine, their Nootkan respondents undoubtedly believed the traditions told them, as did those Nootkans who talked with me. Any attempt to correlate the various lineage traditions in detail is at times as difficult as placing the proverbial round peg in a square hole; however, a general historic outline seems fairly clear, and I will follow that outline to form a detailed analysis of all that I have learned about the ethnohistory of the Nootka Sound area.

According to a myth recorded in the 18th century, the first inhabitant of Nootka Sound was a lone woman whom the god "Quauts" created and left in the gloomy forest around Yuquot. Her only companions were deer without antlers, dogs without tails, and birds without wings. Mourning her sad fate and great loneliness, she often cried loudly until Quauts, moved by her tears, returned to Yuquot in a copper canoe propelled by many handsome youths using copper paddles. She was stunned by the sight and one of the youths had to tell her that Quauts himself had come to visit her and provide her with the companionship she so greatly desired. Touched by the god's magnanimity, she broke into tears again. She wiped

her nose and threw the mucous onto the sand, but Quauts ordered her to retrieve it and, to her delight, she saw that it had been transformed into a living, miniature man (antōkt, the Transformer-Culture Hero of the Northern Nootkans [Drucker 1951: 452]. According to a later tradition, antōkt was created near mowinis, a village close to Yuquot [Boas 1916: 904]). Quauts ordered the woman to pick up the tiny creature, place him in a shell proportionate to his size and place him in larger shells as he grew. Quauts gave antlers to the deer, tails to the dogs, and wings to the birds, and then left Yuquot. The tiny man grew and, as directed, the woman provided him with successively larger shells as his cradles until he could walk. He grew older and his first act as a man was to impregnate his guardian-mistress. Their first-born is considered (by right of primogeniture) the ancestor of all the chiefs and commoners are descended from his younger brothers (Moziño 1913; see Meares [1791 I: 69-72] for a slightly different version of this tradition).

As local tradition is sometimes derived from historical reality, the first-born of the lonely woman and her lover may have been the first chief of Yuquot; however, he probably was not the first chief of the Moachat as we know them today. More recently recorded traditions suggest that the ūmīqtakàmłàth or the nay'itsàptakàmłàth, or both lineages at different times, counted Yuquot among their territorial possessions and allowed no other lineages to build houses there before they were defeated.

If the ūmīqtakàmłàth inhabited Yuquot, a tradition Curtis recorded (1916: 184-186) suggests that they were conquered by a legendary chief yałūa of the yałūactakàmłàth and nine other lineages who were jealous of them because the beach at Yuquot was piled high with the bones of dead

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whales (indicative not only of an abundance of food, but also of the great supernatural powers of the ūmīqtakàmɬàth) and because the ūmīqtakàmɬàth had become one of the most powerful groups in the area through their many marriages with northern and southern people. After their defeat, the ūmīqtakàmɬàth fled to nearby hisnit, their traditional autumn village, and the yaɬūactakàmɬàth and the nine other ~~lineages~~ households established themselves at Yuquot.

Another tradition concerns the nay'itsàptakàmɬàth as former owners of Yuquot. At one time or another, the nay'itsàptakàmɬàth are credited with having rights to several sites and territories, ~~which gives~~ leading credence to the account that they once held a sufficiently important position in the Nootka Sound area to have been at least one of the "owners" of Yuquot. According to a Tlupana Inlet respondent, the nay'itsàptakàmɬàth were represented in the village by ten brothers who held all territorial rights there and all the potlatch seats as well. Angered by this, the yaɬūactakàmɬàth turned on the nay'itsàptakàmɬàth and killed the ten brothers, taking over the right to assign the now vacant house sites and potlatch seats to whomever they wished. Besides Yuquot, the yaɬūactakàmɬàth also acquired additional territory along the lower part of Nootka Sound.

Although one respondent related that a legendary saiyatca'àth chief directed the war against the early inhabitants of Yuquot, and another that the nisàqàth started the war to avenge the murder of a nisàqàth woman by her ūmīqtakàmɬàth husband, it is fairly certain that a chief of the yaɬūactakàmɬàth, aided by other ~~lineages~~ households, took over the village site, included the defeated people in the local alliance, and distributed house sites and potlatch seats. He was awarded first place (highest rank) and all its inherent rights and privileges by virtue of his role in the conquest

But, according to a haiyānuwɔctakåmƛath respondent, the yaƛūactakåmƛath chief received first position at Yuquot because this was the rank he held at kūptī prior to taking Yuquot.

of the village.

At the same time as the ūmīqtakàmłàth and the nay'itsàptakàmłàth were reportedly at Yuquot as sole owners, several groups of people were living on the outside beaches north of Yuquot stretching from mowinis to Ferrer Point. They were referred to collectively as the La'a'ath or "outside people"; a group of people referred to as the hiLtsisàth or "inside people" lived up Tahsis Inlet; several groups of people lived up Tlupana Inlet, and several groups lived up Muchalat Inlet.

Most traditions concur that the people who attacked and took over Yuquot under the direction of yałūa lived year round on the outside beaches from mowinis north to ε'as. These people, including the yałūactakàmłàth, are here collectively referred to as the Southern La'a'àth. They may have formed a local alliance of local groups living on the outer beaches shortly before taking control of Yuquot.

The territory from ε'as north to Ferrer Point was controlled by a people here referred to as the Northern La'a'àth -- probably the Nuchatlet. ε'as itself was apparently divided between the Northern and Southern La'a'àth. It was occupied by the yałūactakàmłàth, one of the Southern La'a'ath groups, and by the ε'asàth, considered here to be one of the Northern La'a'àth groups.

A Nuchatlet group also held rights to tacīs, up Tahsis Inlet, and all territory south of it to a point called popōa, just north of tsusnit. These people living up Tahsis Inlet were collectively referred to as the hiLtsisàth, and it is said that they lived there all year in contrast to the La'a'ath who stayed on the outside beaches.

Some Moachat traditions also state, contrary to Drucker,

that tacīs and all the other Nuchatlet territory up Tahsis Inlet were taken from the Nuchatlet in war. In 1791, an Ehetisat told Malaspina (BCA, A/A/30/M29) that the Yuquot Nootkans had been at tacīs for three generations. By calculating twenty years per generation, the Nuchatlet may have lost tacīs sometime in the early 1730's. A present-day haiyanūwɔctakàmɬàth said that a major reason for the takeover was, among others, that the people living at Yuquot did not have enough chum salmon. The same respondent credits the saiyatce'àth chief Lakwakina with campaigning for the takeover and leading the war party.

A Hesquiat woman married to a Moachat told me that the western shore at the head of Tahsis Inlet was owned by her uncle. Although the lineage of her uncle was not recorded, a nisàqàth tradition states that one warrior from Hesquiat accompanied the people from Yuquot when they fought the people living at tacīs. His participation may have been rewarded by certain rights to this territory.

About the same time, the Nuchatlet also lost their territory along the outside beaches north of Southern La'a'àth territory. Maquinna's father died after 1778 (possibly after Cook's visit) in a war against the Tla-umaces. Maquinna succeeded his father and avenged his death, slaughtering the enemy in a surprise attack on their village (Moziño 1913). The Tla-umaces, whose name means only that they are from the other part, or side, of the sea without indicating in which direction their territory lay, were probably the Northern La'a'àth (Nuchatlet). According to tradition, they were conquered by the Southern La'a'àth. This conquest may be mentioned in a Nuchatlet tradition describing the ɛ'asàth passing Lūpàtcsis with canoe loads of their planks and possessions and their houseposts in tow, lamenting being driven out of ɛ'as by their kinsmen

the yaɬūactakàmɬàth. The Nuchatlet tacīsàth chief (who had lost his territory on upper Tahsis Inlet) invited the ɛ'asàth (who may have originally been a Nuchatlet group) to join his group and, at a feast, gave them house sites and fishing rights (Drucker 1951: 228).

A Yuquot Nootkan war song may describe the defeat of the Northern La'a'àth. It is translated: "Ye little know, ye men of Klahar, what valiant warriors we are. Poorly can our foes contend with us, when we come on with our daggers" (Jewitt 1896: 248). Jewitt's Klahars and Moziño's Tla-umaces, both the La'a'àth, were a small "tribe" who had been conquered and incorporated into the Yuquot Nootkans. Jewitt considered them to be in a state of vassalage; they were not permitted to have chiefs and lived by themselves in a group of small houses a short distance from Yuquot (Jewitt 1896: 132).

At about the same time, the Tlupana Inlet people lived in their traditional area with outside rights at ō'wīs and, quite probably, with additional rights along the southeastern shoreline of Nootka Sound to hōmīs, now considered Hesquiat territory. However, a nisàqàth from the Tlupana Inlet area said that the Hesquiat village of pa'tsista, north of hōmīs, had belonged to the nisàqàth during protohistoric times. According to a Tlupana Inlet respondent, the Hesquiat acquired hōmīs from the historic Tlupana who gave it to the third chief of the aiɛhtakàmɬàth, a nickname of the hōmīsàth referring to their continual hunting of sea otter (Drucker 1951: 238).

Some of the Tlupana Inlet groups were loosely united in a local alliance under the haiyanūwɔctakàmɬàth chief Tlupana at the time the Spanish occupied Yuquot. They were ranked in the following order:

1. haiyanūwɔctakàmɬàth

2. tsaxhōȧth
3. ta'atisȧth
4. nisȧqȧth
5. mōwatcȧȧth
6. ō'wīsȧth
7. qīpsiɬȧth

Although the first ranking haiyanūwɔctakȧmɬȧth chief lived in the village of mōwatcȧ, another, undescribed group called the mōwatcȧȧth ranked in fifth position. Unfortunately, no more information is available on them.

Relatively independent groups of people lived along the shores of the upper part of Muchalat Inlet most of the time. Some groups went to tcɛcīs during the winter and possibly in the spring and others probably also inhabited the southeastern shore of Nootka Sound periodically. Not all the Muchalat Inlet people lived on salt water. Many stayed in the inland village of tsaxana up Gold River and up Muchalat River to Muchalat Lake, known locally as hilūwɛ'ta. These people stayed in the interior most of the time, but did come down to a'aminqȧs to visit kin, hunt hair seals, and exchange venison and elk meat for saltwater products.

After the Spanish Arts abandoned their post at Yuquot, most of the Tlupana Inlet people, under the general direction of the historic chief Tlupana, joined the yaɬūactakȧmɬȧth and several other lineages who used Yuquot as a spring and summer village and began to live with them at Yuquot. What Drucker refers to as the Moachat Confederacy was formed around this time, although it was probably not known by this name at this early date. The Moachat possibly took their name from Tlupana's village of mōwatcȧ, but little evidence supports Drucker's suggestion (1951: 231) that mōwatcȧ was the original home of all the Nootka Sound groups. It is possible, however,

that a Tlupana Inlet group once counted Yuquot among its possessions.

The union of the people living at Yuquot and the Tlupana Inlet people was said to have taken place because Tlupana did not have a potlatch seat at Yuquot, although he was an "uncle" of the historic yaɬūatakamɬath, Maquinna (Maquinna's father had married a woman of Tlupana's ~~lineage~~ household), so Maquinna gave a potlatch and announced that his uncle was to have a seat. I suspect that Maquinna's relationship with Tlupana was not the only reason for the union of the two groups. Maquinna was the most powerful and esteemed chief in the area because he possessed the most material wealth, including muskets, and had the backing of the English, Spaniards, and Americans. The Tlupana Inlet people, for their part, held rights to some of the richest salmon streams in the area and to vast tracts of forests noted for large amounts of game. A union was advantageous to both alliances also for defensive purposes against real or imagined enemies.

A present-day haiyanūwɔctakamɬath said that once the groups inhabiting Yuquot and the Tlupana Inlet people amalgamated, there were ten ~~lineages~~ households with ten house sites at Yuquot; however, he named the ~~thirteen lineages~~ 13 households Drucker had recorded ~~earlier~~. From south to north the ~~house sites were~~ are:

1. saiyatca'ath
2. puqamumctakamɬath (also known as the cax mactakamɬ)
3. tsawunath
4. tūkwittakamɬath (the elder house)
5. nay'itsaptakamɬath
6. yaɬūactakamɬath
7. haiyanūwɔctakamɬath
8. nisaqath

9. Lasmasàth
10. tsisa'àth
11. tūkwittakàmłàth (the younger house)
12. Lūisàth
13. małtsasàth

After confederation, the chiefs were ranked in the following order (Drucker 1951: 263):

1. yałūactakàmłàth chief
2. tsisa'àth chief
3. saiyatca'àth chief
4. tsawunàth chief
5. tūkwittakàmłàth (the elder) chief
6. tūkwittakàmłàth (the younger) chief
7. cāxmactakàmłàth chief
8. nay'itsàptakàmłàth chief
9. haiyanūwɔctakàmłàth chief
10. Lasmasàth chief
11. nisàqàth chief
12. ūmīqtakàmłàth chief
13. małtsasath chief

The first eight chiefs in this list probably may represent the ~~lineages~~ households that formed the Southern La'a'àth alliance before amalgamation with the Tlupana Inlet people. At one time I suspect that the Lasmasàth and ūmīqtakàmłàth chiefs also belonged here, ~~thus~~ forming the ten households described in traditions and by modern Tlupana Inlet respondents, but Drucker's information suggesting the Lasmasàth may be the ta'atisàth precludes such a statement.

Perhaps the ūmīqtakàmłàth, who have a fall village at hisnit and seem

Partly supporting a theory that Yuquot was occupied by an alliance of no more than eight lineages is Edgar's 1778 sketch plan of the village (Coo 1955:Plate L). Although inaccurate in some respects, the plan indicates that the village was ~~eight hundred and twenty-five~~ 825 feet long. If [this is correct and i] the house in the principal row were from ~~one hundred~~ 100 feet to ~~one hundred and fifty~~ 150 feet long as Cook and his men described them, hardly more than eight main lineag houses (five of which appear in Webber's drawing of the village) could have been built in that row as well as the smaller structures at the ends of the row.

Perhaps this [illegible] [illegible]
unless [illegible] a [illegible] village at
hisnit and [illegible]

to have had extensive rights to territory along Tahsis Inlet, including kūptī, first lived on the lower part of Nootka Sound, but moved up Tlupana Inlet to hisnit because of their conflict with the Southern La'a'ath. When the Tlupana Inlet people amalgamated with the Southern La'a'ath, ūmīq was said to have been the chief of the Luisath and it is rather suspect (but not impossible) that a Luisath chief named ūmīq would not have had at least some connection with the ūmīqtakamłath.

The maɬtsasath house site at Yuquot was formerly owned by the ɛ'asath chief who moved to Nuchatlet territory when his child died (Drucker SIA) (or, most probably, when the yaɬūactakamłath drove him and his family out). The maɬtsasath claimed kinship with the ɛ'asath and, therefore, the ɛ'asath house site in Yuquot. The maɬtsasath established their claim and built their house there.

After confederation with the Southern La'a'ath, the ranking of the Tlupana Inlet groups differed from what it was said to have been before confederation. The haiyanūwɔctakamłath chief still had the highest rank of the Tlupana Inlet people when residing at Yuquot, but the position of all the other lineages changed and some, such as the tsaxhōath, ō'wīsath, ~~and tɛ'atibath~~, were apparently dropped. Unfortunately, no explanation of these changes or omissions was recorded, but it is ~~very~~ possible that all of the ~~lineages~~ households residing on the shores of Tlupana Inlet did not or were not invited to join what became known as the Moachat Confederacy, or they were absorbed by other households.

Although the groups living up Muchalat Inlet ~~did not~~ are said not to have anciently formed a local alliance, repeated attacks against them encouraged them to band together against their foes and, after a while, establish potlatch and feast seats among themselves (Drucker 1951: 232-235). In spite of the formation of this alliance, by the mid-19th century the Moachat and other

groups such as the Ahousat and Nimkish had exhausted and depleted the Muchalat in a series of wars. Following (as well as before) a Muchalat-Moachat truce, several important marriages were made between members of the two groups and relations improved. When a man from mō'ya succeeded the first chief of the Moachat (haiyū'a') who died in 1901 without direct heirs, the remaining Muchalat felt encouraged to move to Yuquot and join the Moachat (Drucker 1951: 230-231). However, another source indicated that the Muchalat had moved into Yuquot by 1890 (PAC, RG 10, vol. 1277). According to a tsisa'ath source, no "amalgamation" agreement was signed until 1926. According to Drucker, the Muchalat were not given potlatch seats by the Moachat confederacy but retained their position as a separate group.

Further Moachat moves toward expansion are taking place now. Encouraged ~~by the~~ Moachat, the Nuchatlet, Ehetisat, and Queen's Cove people are debating whether or not they should amalgamate with the Moachat. If they do, the Moachat will have control over a greater area than they have held within memory and will acquire added timber rights, prestige, and most importantly, more multipurpose money.

TERRITORIAL RIGHTS AND PRIVILEGES

Drucker recorded (1951: 248-251, Fig. 17) what is assumed to be the late historic territorial holdings of the various Moachat chiefs (except those from Tlupana Inlet) including their rights to salmon streams, offshore fishing areas, and broad expanses of beach, ocean and inland areas.

(for example, anything such as an unharpooned whale, a canoe, a good log, a runaway slave or even a large quantity of dentalia washed up on a beach or was found, the chief holding rights to the area claimed it as salvage and usually rewarded the finder).

Drucker's data will be summarized below, occasionally supplemented by statements from later respondents (Fig. 2).

Area J was part of the original tsaxsisàth territory and still belonged to the nay'itsàptakàmɬàth chiefs. Drucker does not list the owner of Area K and I have no idea to whom it belongs, but the Lasmasàth might have been likely to claim at least part of it. Although Areas L and M may have once formed part of the yaɬūactakàmɬàth chief's original holdings passed on to the ta'atisàth and tukwittakàmɬàth respectively, it is said that at least the territory north of ɛ'as to a spot near Ferrer Point was, as mentioned previously, under the control of a Nuchatlet group before the yaɬūactakàmɬàth gained control of it. Offshore rights along the outer coast (with few exceptions), the southeastern tip of Nootka Island (Area N), adjacent waters and inland to the watershed of Nuchatlet Inlet were also held by the yaɬūactakàmɬàth chiefs.

Rights to Area I belonged to the saiyatca'àth chiefs. The group holding rights to Area H is not identified by Drucker; however, I would infer that this was Lūisàth territory, said also to have once belonged to the ūmīqtakàmɬàth who Drucker listed as the ancient holders of rights to Area G. According to a haiyanūwɔctakàmɬàth respondent, rights to the location of the ūmīqtakàmɬàth house site in Yuquot had been assigned to the

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Lūisàth at the time the Tlupana Inlet people first moved to the village, suggesting a rather strong bond between the two groups.

Area F was the old territory of the tsawunàth and Area C ~~represents~~ was the old amitsaàth holdings. Drucker did not find out if the amitsaàth received rights to this territory from the Nuchatlet tacīsàth chief or if the rights of the amitsaàth antedated the time when the tacīsàth chief abandoned his claims to Tahsis Inlet.

Areas A, B, D, and E were held by the yaẖūactakàmẖàth chiefs who later transferred Areas B, D, and E to the tūkwittakàmẖàth, a junior lineage that broke away from the former. tūkwit, their ancestral chief, is said to have been a younger brother of yaẖūa (Curtis 1916: 181). Areas D and E were later divided when the tūkwittakàmẖàth split into an elder and a younger group; however, they continued to share rights to Area M along the outside beaches.

The only rights held by the tsisa'àth seem to be those associated with the villages of tsisa and tsawun. Although Drucker was able to list extensive holdings of the tsisa'àth chief living at the time he worked with the Moachat, the rights had been inherited from the chief's maternal kin the tūkwittakàmẖàth. At least tsawun may well be included among these inherited rights.

The only boundary change ~~which could be~~ made on Drucker's plan (1951: Fig. 17) is the westernmost boundary of the Tlupana Inlet groups. According to a haiyanūwɔctakàmẖàth respondent, the boundary line went down the center of Clerke Peninsula on Bligh Island, not further west. The hair seal and herring grounds of Ewin Inlet were not haiyanūwɔctakàmẖàth territory.

Today, all the village and camp sites that the government deeded to the Indians

bordering Nootka Sound, Tahsis Inlet, Tlupana Inlet, and Muchalat Inlet are the property of the Moachat Confederacy. All of their rights to other areas of the Sound both out to sea, rimming the shore and inland have been taken from the Nootkans and in many cases, leased ~~out~~ to lumber companies for timber rights or mining companies for mineral exploitation.

VILLAGE AND CAMP SITES

Published data describing village and camp sites in the Nootka Sound area (below) will be presented in condensed form supplemented by unpublished data and information from respondents. In some instances, distinguishing between a village site or a camp site is often difficult because of insufficent information.

Before taking over Yuquot and becoming the Moachat, the Southern La'a'ath lived along the beaches northwest of Yuquot. Their principal villages were ɛ'as and tsaxsis. The ɛ'asath were formed either of two local groups or of one group which split into two, one of which became the yaɬuactakamɬath who drove the ɛ'asath out. The art of whaling was said to have been discovered at ɛ'as (Drucker 1951: 228). The site, protected by an offshore reef, is noted for the great ~~amount~~ (numbers) of whales, hair seals, sea otters, halibut and clams available there, and is considered a good place to live even though there is no stream to support salmon runs. The area has many deer, and ducks were commonly caught offshore, especially during stormy weather.

According to Drucker (1951: 228), the people of tsaxsis became the nay'itsaptakamɬath and the saiyatca'ath.

This statement is of more than passing interest because the saiyatca'ath were credited by one respondent as the group that forced the nay'itsaptakamɬath out of Yuquot. Although this is not impossible, it seems more probable that the yaɬuactakamɬath took over Yuquot aided by the sai'yatca'ath and other local groups, ~~rather than the sai'yatca'ath.~~ ~~Actually,~~ early difficulties described as having occurred between these

two groups may have stemmed from some disagreement between them as to who played the major role in the takeover of Yuquot.

The art of whaling was also said to have been discovered at tsaxsis. The offshore waters are noted for whales, hair seals, sea otters, and halibut. Coho, pinks, and chum salmon go upstream at tsaxsis and there are many deer in the area. As at ɛ'as, ducks were commonly caught offshore.

According to my notes, Lasmas, a village site near ɛ'as, was the legendary home of the Lasmasȧth, who were said to have moved into ɛ'as after the departure of the ɛ'asȧth, but according to Curtis (1916: 281), the Lasmasȧth originally lived at ɛ'as and were known as the ɛ'asȧth. They changed their residence when their chief Towik, in mourning for his son, burned his house and moved to Lasmas (young cedars). However, according to Drucker (1951: 249), a yaɬūactakȧmɬȧth chief gave rights to ɛ'as and the general area to his ta'atisȧth son-in-law, and since that time the ta'atisȧth have called themselves the Lasmasȧth after the nearby site. This may be so, but the only Lasmasȧth respondent I talked with considered her group to have a long history at Lasmas and ɛ'as, going back to the legendary Chief Towik who received his first whaling harpoon while living in ɛ'as.

A important site is mowinis, located halfway between Yuquot and the lagoon. The Southern La'a'ȧth also held this site. Great quantities of salmon went up a small creek at the site to Jewitt Lake, immediately north of the camp. Among the other Southern La'a'ȧth sites is tsa'tsiɬ, located where the lagoon empties into the Pacific Ocean. The river into the lagoon is noted locally for its chum runs and sea mammals and halibut could be obtained offshore. ka'aɬi is a camping site northwest of the lagoon. The historic Maquinna often stayed at ka'aɬi in the summer

when the ~~Spanish~~ Spaniards occupied Yuquot. A reference to ka'aɬi not having a beach (it does) may ~~possibly~~ indicate that a nearby area was fairly inaccessible and ~~was possibly~~ may have been used as a place of refuge in time of war. a'iLɬ is noted for the large ~~amounts~~ numbers of hair seals taken there as is a nearby site, mūquatis.

After the Southern La'a'ȧth gained control of the area on the outer coast from ɛ'as north to a spot near Ferrer Point, several more villages and camp sites became available to them. tuquatis is located at the mouth of Calvin Creek where only coho are able to jump the high waterfall to go upriver. People ascended Calvin Creek to Crawfish Lake where they fished for coho and hunted. A small island in the lake was the site of an important whaling shrine used by the legendary Towik, the Lasmasȧth chief. a'apswinis is a camping area near tuquatis. There is no river at this site, but the people trapped salmon at Schooner Bay and fished and hunted sea otter and hair seal offshore. Deer were also available to people living at this or any other camp site or village on the outside coast, but in smaller quantities than those available to residents of the inside coast. The people living at tcɬtɬts depended mainly on offshore halibut fishing, sea mammals and deer for their subsistence. Respondents say they also caught coho going upriver, but I am not sure if they were caught in the river to the northwest of the village or in Calvin Creek. katskwȧtcū is a camping site only, but I neglected to find out for what purposes the site was used other than as a base for hunting sea otter. Although the site is on the mouth of a creek, it is said that no salmon go upstream.

The Southern La'a'ȧth's possession of Yuquot provided them with more than a stepping stone to further expansion. The site is ideally located for anyone wanting control of the entrance to Nootka Sound. It

is a vantage point from which, at least on clear days, the movements of anyone entering or leaving the sound can be easily observed, especially with the help of lookouts on Bligh Island. People travelling north or south along the coast pass through the entrance to the sound because most prefer to go through the inside passage around Nootka Island rather than chance the unpredictable conditions on the outside coast of the island.

Yuquot is more easily reached than the outside sites such as ɛ'as and tsaxsis and has a good, protected beach. There is a large area for house construction, ample supplies of large trees for house planks and other wooden items, firewood is obtainable in the forest and on the beaches, and fresh water is in constant supply even during the relatively drier summer months. Shellfish were available from the beach fronting the village, and the offshore supply of salmon, herring, cod, red snapper, and other fish is said to be excellent. The people did not have to go far to pursue whales, hair seals, porpoises, sea lions, and even fur seals which sometimes enter the sound in June and July. Berries and roots are also plentiful.

The inhabitants of Yuquot are in a position to take advantage of the best of two worlds. Generally, the outer coastal areas can be exploited during the spring and summer, and the interior areas can be tapped during the fall and winter. Thus, people living at Yuquot do not have to venture onto the stormy Pacific in the fall and winter for their subsistence. This is not to say that the outside coast is a "bad" place to live, but that the combinations of advantages offered by both the outside and inside areas which is present at yuquot and environs gives the inhabitants a comparatively better life.

When the Southern La'a'ath took over Yuquot, they also gained several

sites along the shores of the lower part of Nootka Sound. The closest site to Yuquot is a'oqtsis, where a now defunct cannery was built in the early 20th century. People living here took chum and coho at the narrow entrance to Boca del Infierno Bay (tsaya?) and at the mouth of the stream entering the western shore of the bay.

The next site is mawun. The saiyatca'ath, who, according to Drucker, descended from the people living at the outside village of tsaxsis, had rights to mawun. The stream bordering the site is noted for chum salmon runs from September to December (Bentley n. d.). Large schools of herring come to the area in November and December, and return in March or April to spawn, attracting great numbers of ducks, geese, and salmon. The salmon in turn attract sea lions within easy hunting range of the villagers. Clams are also available nearby.

Lūis is also located near the lower reaches of Nootka Sound. It was said to have been owned by the Lūisath, but another respondent said it was once owned by the ūmiqtakamłath. The stream near the village supports runs of chum, coho, and steelhead salmon during the fall. Herring also spawn here.

a'muqtis is a village site located at the northwestern tip of Strange Island. It was used primarily as a base from which to exploit the large schools of herring found in Kendrick Inlet, but it was also a favourite spot for ceremonial bathing.

kūptī is an important winter village originally owned by the puqanumctakamłath (who were also called the cāxmactakamłath because a marriage united the two groups). The puqanumctakamłath gave house site rights at kūptī to the yaīūactakamłath chief as part of a dowry and gave additional rights to other groups. The site became a winter village for

households

several ~~villages~~ (Drucker 1951: 229-230). However, according to one of my respondents, kūptī was first owned by the ūmīqtakàmɬàth and later by the nay'itsàptakàmɬàth after the Southern La'a'àth took over Yuquot and drove the ūmīqtakàmɬàth out. This may have been so at one time because, as well as the groups Drucker listed, the nay'itsàptakàmɬàth had rights in kūptī. The tūkwittakàmɬàth also had rights there. The ɛ'asàth used to live in different houses at kūptī during the summer before they acquired their own house (Drucker SIA).

Although two small streams run through kūptī, they do not currently support salmon runs. The village is noted for the large amounts of herring that school offshore during the winter and for other fish such as chinook salmon and cod that can be caught on hook and line. Like all shoreline sites on Tahsis Inlet, kūptī is noted for deer being available in the vicinity. There are some clam beds nearby, but these are probably small ones.

McMillan's 1967 excavations at kūptī produced a fair amount of shell: butter clam (Saxidomus giganteus), little-neck clam (Protothaca staminea), horse clam (Schizothaerus capax), blue mussel (Mytilus edulis) California mussel (Mytilus californianus), triton shells and barnacles. Fairly large quantities of fish remains were identified: salmon, herring, dogfish, sea perch, and halibut. Mammal remains included deer, whale, seal, porpoise, bear, and a few fragments of a wolf or dog skeleton. A few bird bones were also identified. However, little effort was made to interpret the fauna quantitatively (McMillan 1969: 104).

suyaqtis, a village site that probably also came under Southern La'a'àth control after they took over Yuquot, is located on the southwesternmost tip of Bligh Island. It is excellently situated for sea

mammal hunting and offshore fishing. The clam beds on the north shore of Verdia Island are easily accessible from suyaqtis.

The village of tsawun, up Tahsis Inlet, is said to have been owned by the tsawunȧth; however, recently obtained information suggests that the nay'itsȧptakȧmɬȧth first owned the site and later the tūkwittakȧmɬȧth. Tukwit, an ancestral chief, was the brother of the tsawunȧth chief (Curtis 1916: 181). The tsisa'ȧth also had rights here. The stream at tsawun is noted for large chum salmon runs from September to November, coho from September to January, and steelhead from December to April inclusive (Bentley n. d.). Herring are obtainable during much of the year and spring salmon are obtainable in the summer. A clam bed is located near the site.

Immediately north of tsawun is the camp site of tsusnit which the tūkwittakȧmɬȧth owned. Dog salmon run during the fall in the creek which borders the site.

After the Southern La'a'ȧth pushed the Nuchatlet out of the upper part of Tahsis Inlet, several more salmon streams became available to them. One such stream, where chum salmon go upstream in the fall, is located at the site of hatɔq. The site was originally owned by the Nuchatlet and later by the tūkwittakȧmɬȧth.

The Southern La'a'ȧth also absorbed amitsa. According to Drucker, the amitsa'ȧth chiefs gave the nay'itsȧptakȧmɬȧth rights to the upper part of Tahsis Inlet. My notes suggest that the amitsa'ȧth was a Nuchatlet group, and most of the Moachat I talked with either described them very vaguely or had never heard of them. Drucker may have learned about the amitsa'ȧth from a Nuchatlet, not Moachat, respondent. Whether or not amitsa was located on a stream and, if so, whether or not it supported salmon runs is not known. The area is noted for herring and other off-

shore fish and good hunting and trapping. A burial cave is located nearby (Moore: personal communication).

tsisa was included in the northern expansion of the Southern La'a'ath. The tsisa'ath, who ranked second to the yaɬūactakàmɬàth at Yuquot, were said to own it. The Leiner River bordering tsisa is noted for large runs of chum salmon from September to December and of pinks during September and October. Herring is plentiful there during November and December. Ample supplies of roots and berries can be collected during the fall and hunting and trapping is good.

tacīs is by far the most important Tahsis Inlet site. According to Drucker (1951: 229), a Nuchatlet tacīsàth man gave rights to tacīs to a nay'itsàptakàmɬàth who came to console him when his son died. Some present-day Moachat describe a historic war fought to gain control of tacīs from a small group of Nuchatlet people, which may possibly relate to the nay'itsàptakàmɬàth takeover of tacīs from the Nuchatlet tacīsàth. According to Drucker (1951: 248), the yaɬūactakàmɬàth chief acquired tacīs in marriage with the nay'itsàptakàmɬàth, but according to my notes, the yaɬūactakàmɬàth may have taken tacīs from the nay'itsàptakàmɬàth by force as part of their rights of conquest after the Southern La'a'ath forced the nay'itsàptakàmɬàth out of Yuquot. According to Drucker (1951: 229), the yaɬūactakàmɬàth chief was the highest ranking chief in Yuquot and tacīs. Additional rights at tacīs were given to ancestral chiefs of various "inside" groups such as the tūkwittakàmɬàth, the tsawunàth, the puqanumctakàmɬàth and the people living at mawun.

tacīs borders the richest salmon stream emptying into Tahsis Inlet. Up to ~~fifteen thousand~~ 15,000 chum salmon go upriver from September to December as well as large quantities of pinks and coho (Bentley n. d.). In

addition, the area is noted for large quantities of herring, ducks, geese, land mammals, berries and roots. tacīs is also the terminus of the overland trail between Nootkan Sound and Nimkish territory, a matter of great importance to the Yuquot Nootkans or anyone living at the site.

Tlupana Inlet

Several sites are located in the Tlupana Inlet area. Some of these were important villages that were inhabited throughout the year unless an important event such as a Shamans' Dance or a large feast were being held at a winter village on the shores of Nootka Sound. Others were camping spots used only when salmon were running or berries were in season. The sites located on the upper reaches of Tlupana Inlet will be described first.

According to haiyanūwɔctakàmɬàth tradition, when animals could remove their skins and become men, the god Kanákenuhw changed them into human beings. At mōwatcà, he changed Aápwaik into a man and his feathers into a wren. Aápwaik was the first of the mōwatcààth and his family was the only one to live at mōwatcà for some time. One of his descendants was haiyanūwɔ and the family became known as the haiyanūwɔctakàmɬàth. The historic Tlupana was the first to use the wren as a crest, and killing the bird was forbidden because the old people said they had descended from it (Curtis 1916: 183).

The village of mōwatcà, at the mouth of Conuma River, belongs to the haiyanūwɔctakàmɬàth and was the home of the historic Tlupana. The river has the largest chum salmon run on Tlupana Inlet. Up to 10,000 chum go upstream from September to November and large numbers of chinook school off the river mouth in August and September (Bentley n. d.). The

inland limits of haiyanūwɔctakámɬáth territory are said to extend to Conuma Peak and the area has large quantities of land mammals, ducks, berries, and roots. There are, according to a haiyanūwɔctakámɬáth, no major clam beds here or at any other site on Tlupana Inlet. It is inferred that the name of the Moachat Confederacy was derived from this site.

The village of nisáq is located at the mouth of Tlupana River. Although the people anciently inhabiting the site were known as the hi' takɛastakámɬáth, they are now more often referred to as the nisáqáth (Curtis 1916: 181). Tlupana River is noted for salmon runs during the fall and early winter and the inland area bordering the site, like all other areas along the upper part of Tlupana Inlet, is well known for large quantities of deer, elk, berries, and roots.

maxtɛas, located on a stream, is said to be a village where chum salmon were smoked, but I did not learn who had rights to the site nor the quantity of fish going upstream. huacuk was a fall camping ground where chum, pinks, and coho salmon were taken from the nearby river. ca'cisūq is a village adjacent to a spring. People staying there fished and hunted land mammals; however, during chum runs, they fished in the Tlupana River, apparently sharing rights to the river with the nisáqáth.

ta'atis is located near the mouth of Canton Creek. No one seems to know who held or holds rights to the site and the adjacent river except for references to the deceased grandmother of a man living on the reserve at Gold River. A small amount of chum salmon go upstream here from September to November and a few steelhead from October to February (Bentley n. d.).

tsaxhō is located at the mouth of Sucwoa River. Exactly who held rights to this village is not known. According to Tlupana Inlet respondents,

the people living here stayed at the site year round during ancient times. Fairly large quantities of chum and other types of salmon go upstream during the fall and early winter (Bentley n. d.) and ducks, geese, deer, and elk are plentiful.

The next village down the inlet is hisnit. The ūmīqtakàmɬàth have the rights to the village site, the adjacent river and Deserted Lake. According to tradition, the ūmīqtakàmɬàth returned here after being driven out of Yuquot. The river is noted for large runs of chum salmon from September through December (Bentley n. d.). Sockeye were caught in Deserted Lake and large numbers of mallards were also obtained there.

Across the inlet from hisnit is so'īs, a camping ground where people went to take chum and coho from the nearby river. Below so'īs is the village of qīpsiɬ where chum and coho were also taken from a nearby river. Below qīpsiɬ is the camp site of tsitsminimoq. No stream runs there so all fishing has to be done offshore. Hair seals are hunted there, especially when herring are schooling and salmon spawning. Across the inlet from this camp is the village of nusmoq. People living here took chum and coho salmon from the creeks emptying into the lagoon or the bay west of the village. Hair seals were hunted nearby and herring schooled near the site. Large quantities of berries were available near the village.

The haiyanūwɔctakàmɬàth also own ō'wīs. According to a nisàqàth, ō'wīs was first owned by the ūmīqtakàmɬàth and later by the nay'itsàptakàmɬàth before the haiyanūwɔctakàmɬàth obtained it. House sites at ō'wīs were given to the people from hisnit, tsaxhō, ta'atis, nisàq, and Lūis (Drucker 1951: 230). My notes indicate that these rights were distributed by the younger brother of the historic Tlupana. The site was a winter village where most of the people from Tlupana Inlet would meet for winter cere-

monials, much like other lineages met at kūptī. When Cook sighted ō'wīs in the spring of 1778, it had already been vacated for the season. Hoiss Creek, which runs through the site, supports a fairly large chum salmon run from September through November and much smaller runs of other salmon (Bentley n. d.). The site is also noted for offshore herring schools, ducks, and a large deer population inland.

The haiyanūwɔctakàmɬàth once had a whaling station on Bligh Island and fishing camps all the way down the southeastern limit of Nootka Sound to Perez Rocks. At least three villages were located along the shoreline. The mouth of Escalante River was the site of a village (unidentified) where chum salmon were taken and probably smoked (Bentley n. d.). tcītus, south of Escalante Point, was situated near a stream that supports runs of chum and pink salmon, and hair seals, ducks, geese, and halibut were taken offshore. South of tcītus is the village of pa'tsista where the Tlupana Inlet people used to go to take offshore sea mammals and halibut. No salmon go upstream in the nearby river. The southernmost site along the coast is hōmīs where tradition says that Tlupana used to fish for halibut. The site is also noted for ~~great amounts~~ large numbers of hair seals, sea otters, and ducks. Although a stream passes through the site, it does not support salmon runs, ~~according to~~ respondents say that

Muchalat Inlet

Although this study only touches on the Muchalat Inlet groups, a short description of their village and camp sites will be given to present as complete a picture as possible of the general settlement pattern of the entire Nootka Sound area, including the three inlets. The sites on the uppermost part of the inlet will be described first (Fig. 4).

mȧtcłī is on the most important salmon river emptying into any inlet on Nootka Sound. Every second year up to 150,000 ~~one hundred and fifty thousand~~ pink salmon go upriver from August through October. In addition to supporting large quantities of chum and coho salmon, the lower river is suitable for trapping and spearing salmon (Bentley n. d.). Hair seals and ducks were common in the area; the former pursuing the spawning salmon and the latter feeding on drifting roe. Hunting and trapping land mammals and gathering berries and roots were also productive. It was an ideal place to live.

A stream on the northeast shore of Matchlee Bay, halfway between mȧtcłī and a'aminqȧs, supported chum and chinook salmon runs as well as a few steelhead, but whether or not a village or camp site was located there is not known.

a'aminqȧs, at the north side of the head of the inlet, is another ideal location for salmon and sea and land mammals. Besides large quantities of chum and coho salmon, 2,000 ~~two~~ to 3,000 ~~three thousand~~ sockeye go upriver from May to October (Bentley n. d.). The first chief of the Moachat was said to be entitled to the first two day's catch of sockeye from this river.

a'aminqȧs also benefited from the inland people who lived up Gold River at tsaxana. These people not only had access to river products from nine camps on the way up to Muchalat Lake, but also hunted and trapped deer, elk or other land mammals in sufficiently large quantities to share them with groups living at a'aminqȧs and other sites on the shores of the inlet. Unfortunately, little else is known about these people, basically inlanders, and to my knowledge, only one or two are ~~is~~ left and they are ~~she is~~ over 80 ~~eighty~~ years old.

mōktas is a village site west of a'aminqas. McCurdy Creek, adjacent to the site, supports runs of chum, chinook, pinks, and sockeye salmon. tcɛxɬa is located across the inlet from mōktas. Two salmon streams run near the village: Jacklah Creek supports a moderate run of steelhead all year and small runs of chum, coho, and chinook salmon occur in the fall; the other creek, east of Jacklah, also has small runs of the same type of salmon.

To the west of tcɛxɬa is the village of tciyak. Although my notes indicate that the people living here took chum, coho, and pink salmon, no map shows a river at this site. However, it is possible that they fished in nearby Houston River which supports a small run of chum and steelhead salmon (Bentley n. d.). Further west is the village of a'ōs located at the mouth of Silverado Creek. Fairly large runs of chum salmon go upstream here from September to November (Bentley n. d.). Across the inlet from a'ōs is the village of ɬīptī at the mouth of Kleeptee Creek, which is noted for runs of chum salmon during October and November (Bentley n. d.). Further down the inlet is the village of mō'ya at the mouth of Mocyah River. A fairly large chum salmon run goes upriver from September to November. It is a wide, shallow stream and is easily fished (Bentley n. d.).

The village of tcɛcīs is located on Hanna Channel. It is one of the villages Captain Cook sighted and probably visited in 1778. Modern Muchalat consider it a winter "potlatch" village, implying that it served basically the same function as kūptī and ō'wīs. No fish are said to go up the small stream running through the site. Another village was located northwest of tcɛcīs, but none of the present-day Muchalat remember its name. Chum salmon are said to go upstream there.

In addition to these sites, the Muchalat, like the Tlupana Inlet

people, are said to have had rights along the eastern shore of the outer part of the sound (Drucker 1951: 230, 232). These rights may have been obtained through marriage with groups living in Tlupana Inlet or ~~vice versa~~ conversely Inlet people may have obtained rights through the Muchalat. The two groups often met while hunting or fishing around Muchalat Lake.

Discussion

The above descriptions of the sites located in the Nootka Sound area strongly indicate that sites on the outer coast, such as ɛ'as and tsaxsis, are established where large sea mammal populations, halibut, ducks, geese, and shellfish are available and, when possible, bordering salmon streams although these usually only support minor runs. The inside sites are almost invariably located near salmon streams which support fairly large runs of fish, offshore fishing areas where cod, chinook salmon and perch are common, where herring school and spawn, and where plentiful sources of ducks, geese and land and sea mammals are available. Berries and roots are found near both the outside and inside sites, but are more abundant on the inside.

Some of the most important subsistence items of the inhabitants of the entire Nootka Sound area were salmon, herring, and the roe of both species, but only small quantities of salmon and herring are available on the outside coast. To obtain these fish, which played major roles in the Nootkans' daily diet and feasts, as well as to obtain the other advantages inherent in sites on the inside coast, it may be inferred that people who lived on the outside coast all year round would do their best through marriage or armed conflict to also acquire rights to as many sites as possible along the sheltered upper reaches of the inlets. The Southern La'a'ath did just this in their takeover of Yuquot and Tahsis Inlet and by doing so, formed part of the basis for the later formation of the Moachat Confederacy.

~~This is not to say that~~ people living along the upper shores of the inlets did ~~not~~ try to gain access to territory along the outside beaches, but ~~only that~~ most traditions emphasize competition for sites with ~~either~~ heavily populated salmon streams ~~or~~ inlets or sites, like Yuquot, that are close to ~~both~~ salmon streams and ~~all the goodies~~ resources and that have good ~~obtainable~~ offshore ~~plus having a decent~~ beach from which canoes could be launched at any time ~~during~~ the year.

POPULATION

From the time of Cook's visit to Nootka Sound, visitors to the area have attempted to estimate, with varying degrees of success, the numbers of inhabitants of each village they sighted ~~xxxxxxxxxxx~~ and the number of inhabitants of the area as a whole.

~~POPULATION~~

Early Explorers

Cook and his men noted that the inhabitants of Nootka Sound were numerous and apparently lived in "Tribes" along the shore because the inland part of the country was uninhabitable. They attempted to estimate the population of the Nootka Sound area, basing the ~~estimate~~ figure on the number of canoes that surrounded the ship at one time. They counted about ~~one hundred~~ 100 canoes, estimated that each had about five occupants, and came to a total of ~~five hundred~~ 500 people. But because only a few women and children were in the canoes and therefore were under-represented, Cook (or Anderson or an editor) estimated that the total population of the area was approximately ~~two thousand~~ 2,000 people. ~~However~~, however, King realized that only a poor estimate of the number of inhabitants of the Sound could be made because of the location of the ships.

Parties from the ships visited five villages located on the Sound, two of which were said to be occupied at the time (March-April) (although probably at least one other village was also occupied). Three of the villages were large; the other two, much smaller. The largest village, which must have been mō'ya, was situated on a deep bay on the east side of the Sound, and its population was estimated to be approximately ~~one~~ 1,000 thousand people. Another large village, on the northeastern shore of the Sound, probably tcɛcīs, the village of the "surly chief," was estimated to have a population of about ~~seven hundred~~ 700 people. The third large village, around the west point of the Sound, was Yuquot and its estimated population was approximately ~~seven hundred~~ 700 people. The two

smaller villages, mawun and an unidentified village north of tcɛcis, were each estimated to have ~~one hundred~~ 100 people. There was an estimated total of ~~two thousand, six hundred~~ 2,600 inhabitants in the sound, ~~six hundred~~ 600 more than the estimate based on the number of canoes around the ship.

However, individual estimates varied, particularly those for Yuquot. According to Samwell, between ~~eighty~~ 80 and ~~ninety~~ 90 canoes were hauled up on the beach fronting Yuquot and about ~~five hundred~~ 500 to ~~six hundred~~ 600 people lived there. Ellis computed the number of inhabitants of the village at ~~four hundred~~ 400, Bayly put the number at ~~five hundred~~ 500 people living in ~~forty~~ 40 houses, and Burney thought that the crews' estimates of the population of Yuquot varied between ~~five hundred to two thousand~~ 500 and 2,000 people (Ellis 1783: 206; Cook 1785: 272, 313; 1967: 303, 311, 1097-098, 1396, 1404; ATL; BCA, A/A/20/D63B/v. 2).

Although the figure of between ~~five hundred to seven hundred inhabi-~~ tants in Yuquot in 1778 seems a reasonable one, Bayly's reference to forty houses is rather high. If his house count were correct, the average number of occupants in each house, some of which were one hundred and forty-five feet long and thirty feet wide, would only be between twelve and fifteen people, very low in comparison with later occupancy figures.

Early Traders

Strange estimated the population of Yuquot at about ~~five hundred~~ 500 people. After each family had traded their supply of furs with him, they packed their belongings, took their house planks and small timbers and left, so there were only about ~~one hundred~~ 100 people in the village long before Strange departed (Strange 1928: 37).

Meares estimated the population of the Nootka Sound area at between

three and four thousand people with more men than women. He stated that Cook's estimate of two thousand inhabitants for Yuquot agreed with his observations; however, Cook had not offered this figure as an estimate of the population of Yuquot, but as an estimte of the population of the entire Sound. Two other villages on the Sound, thought to be subordinate to Maquinna, contained an estimated total of one thousand, five hundred people. One of these villages was a considerable distance up the Sound in a district under the jurisdiction of Hannape (an Ehetisat chief). Four villages to the north and four others to the south were said to be under Maquinna's chieftaincy and to average about eight hundred people per village. Meares may have been referring to the Ehetisat to the north and the Hesquiat to the south, but that these groups were under Maquinna's chieftaincy is doubtful. If Meares' population estimates were valid, Maquinna would have been chief over close to ten thousand people living in eleven villages (Meares 1791 II: 6-7, 67).

Spanish Occupation

While Sanchez lived at Yuquot, there were said to be twenty-two villages on Nootka Sound from its entrance to its end and including the inlets. Some of the villages reportedly had three hundred inhabitants; others, four hundred; and other villages, unfortunately not listed, as many as one thousand, not counting women and children. As many as four hundred people were said to live in a single structure. According to Malaspina, there were approximately four thousand people subordinate to Maquinna living on the Sound and its inlets; however, Moziño listed the total population under the three highest ranking chiefs at less than two thousand people. The writer of the Log of the Chatham, referring to an

estimate made by Fidalgo, stated that approximately five hundred people were fishing "sardines" and herring near Yuquot in February (Malaspina 1885: 193; Moziño 1913; YUL/WAM/415; PAC, MG 12 A, Adm 55/17).

There were four hundred men in tacîs in 1791 and when Maquinna entertained Vancouver there the following year, there were approximately five hundred people in the village. When Vancouver returned to tacîs in September, 1794, the village was sparsely occupied. Maquinna explained that many families were still absent completing their winter supplies, but when they returned and the houses were fully occupied, the population of the village would total eight to nine hundred people (Vancouver 1798 Vol. III: 310; MN/892; BM, Add Mss 17548).

Sporadic Contact

Jewitt should have been able to make a reasonably good estimate of the population of Yuquot, but failed to do so in his 1807 publication, although he estimated in his later narrative that one thousand five hundred people of all ages and sexes were living at Yuquot during his stay there and of these, five hundred were warriors. At the time, Maquinna had nearly fifty male and female slaves in his house and they formed about one-half of the total occupants, indicating that nearly one hundred people lived under Maquinna's roof (Jewitt 1896: 71, 131-132, 187, 237).

In a 1856 census, the confederated people now known as the Moachat numbered one hundred and eighty men with beards, one hundred and ninety-three women and two hundred and three boys and girls, a total population of five hundred and sixty-seven people. According to Brown, there were one hundred and fifty adult Moachat men in 1863. In 1871, the population of the Nootka Sound area was said to be two thousand people, a figure probably

taken directly from the publication of Cook's journal (Jewitt 1896:71; PAC, MG 11, CO 305, Vol. 7). Three years later,

Euroamerican Period

In 1874 Brabant brought the population figure for Yuquot closer to reality by noting that at least five hundred people had their main residence there (Brabant 1900:12). In 1879, twelve families were living in the house of haiyū'a' in Yuquot and it was probably around this time that the saiyatca'ath house held ninety occupants. They lived in such cramped conditions that the structure was referred to as the "Soldier house" (Canada. Department of Indian Affairs Report for 1879: 4).

The Department of Indian Affairs census for 1881, taken after a period of extensive conflict and a smallpox epidemic, recorded only eighty men in Yuquot and a total population of two hundred and thirty people, few of whom were children. The total population of Nootka Sound, including the Moachat and the Muchalat, numbered only three hundred and seventeen people, a staggering reduction in comparison to earlier estimates. However, the Moachat population built up to two hundred and fifty-four people by 1883 and the increase continued at an uneven rate until three hundred and fifty-two Moachat and Muchalat were at Yuquot in 1890. In 1895, Dalton reported that, when the people were not away fishing, the total population of Yuquot was over three hundred people. The Indian Affairs census, however, listed the population of the Moachat at only two hundred and seventeen people for the same period. From approximately this time on, population figures began to decline. For example, one hundred and eighty-five people were living in Yuquot in 1901: sixty-six men, seventy-five women and forty-four children, twenty-three of whom were considered to be of school age. By 1934, the total number of Moachat was only seventy-nine people (PAC, RG 10, vol. 1277; BCA, G/V27/B63A/c. 2; Canada. Department

of Indian Affairs Annual Report for 1894: 276; for 1901: 266; for 1934: 34).

The following data on the population of Yuquot including both Muchalat and Moachat from 1965 to 1967 was obtained from the British Columbia Indian Commission (personal communication):

	On Reserve	Off Reserve	Total
1965	184	26	210
1966	134	82	216
1967	90	123	213

This demonstrates the strong tendency of the Moachat to leave the reserve in recent years and move to the city, made possible in many cases by the availability of unemployment insurance and welfare. By the summer of 1969, the combined Moachat-Muchalat population of Yuquot had been reduced to less than ~~forty~~ 40 permanent residents.

Discussion

A number of variables ~~that~~ must ~~has to~~ be considered before weighing the value of any population figure for any village in Nootka Sound. One variable is the time of the year during which a census was taken. ~~As is well known,~~ most of the people living along the shores of the Sound moved from place to place several times a year making it difficult to arrive at ~~come up with~~ a reasonably accurate population figure especially during the autumn ~~Fall months of the year~~ when so many households left Yuquot and similar sites to take advantage of the salmon runs up the various rivers emptying into Nootka Sound and its three major inlets. Another factor ~~that must be considered~~ is the increasing effect that confederation probably had ~~made~~ on the population of Yuquot and the ~~to be followed by the~~ decreasing effect ~~brought about by~~ such epedemic diseases as small pox. ~~Beside these factors, the effects of~~ war fare could also have a telling effects ~~results~~ on population figures: If a particular group emerged the victor during a major conflict their population could be increased by the captives they took, ~~brought back from a raid, or~~ but if they lost their numbers could be decreased due to people ~~either~~ being killed or captured. ~~As is well known,~~ the popularity of a particular chief would also influence population figures: If his prestige were ~~is at~~ a high level, more and more people would move into his household; ~~but~~ if for some ~~one~~ reason ~~or another a chief's~~ his prestige ~~was on the~~ were waning, people would move in to happier households. Famine could also be a factor although a temporary one.

The idea that population size is determined by extremes rather than the mean condition is rejected here at least for the Nootka Sound area especially when viewed from the standpoint that "although a semi-arid" zone may have several bountiful years in succession, a single year of drought occurring but once in a generation may restrict the population to a low density." (in Suttles 1968:60). First, ~~of all,~~ Nootka Sound is hardly a semi-arid zone and ~~secondarily~~, if one food source failed there was often another to be exploited, albeit less bountiful and less successful. Besides ~~this,~~ if Adams's findings (1973: 97-106) that people tended to move from households with a limited number of status positions available to one with ~~several~~ vacant status positions is valid, one would expect that a household partially decimated by starvation, disease or warfare would be rapidly replenished by waves of status seekers jockeying to gain ~~recognition of~~ status positions higher than those they held in their previous household.

~~Fortunately for Cook and his crews and by extension, those interested in~~ Yuquot ~~and its people, the village~~ was most probably almost totally inhabited at the time Cook's ships ~~the Discovery and the Resolution~~ entered ~~breezed into~~ the Sound. That is ~~to say that~~ the greatest amount of people to live there during any time of the year were probably there at that time. Although the figures of between 400 and 700

inhabitants in Yuquot given in 1778 seems a reasonable one, Bayly's reference to 40 houses in the village appear somewhat high, but not totally impossible. Meares' estimates of 3,000 to 4000 inhabitants in the Nootka Sound area seems high as does his figure of 2,000 for people living in Yuquot. His estimate of 9,900 people being subordinate to Maquinna also appears high when compared with earlier and later estimates unless Meares was including everyone belonging to the Nootkan language community.

During the time that the Spanish lived in Yuquot, the Nootkans had to live in several different villages along the outer coasts and on the inlets. This made it difficult for their Spanish, British or American visitors to estimate their population at any time during the year. It is possible, however, that population estimates of 500 to 900 people for tacis in the autumn during the 1790s probably approaches reality because this site may have served as a temporary replacement for Yuquot when large groups of people would gather there for Lōqwana and related activities.

Although Jewitt's estimate of 1500 people residing in Yuquot may be a little high, his estimate of 500 warriors agrees fairly well with an estimate of 400 men in tacis in 1791. Beside, the formation of the Moachat Confederacy would also have increased the number of

people living in Yuquot during the spring and summer, ~~months~~. Although decreases in later population figures in comparison to Jewitt's estimates may readily be explainable due to armed conflict and possible small pox epidemics before 1875, the 567 figure given in the census of 1856 and Brabant's estimate of 500 people ~~in~~ 1874 match closely earlier population estimates of Yuquot provided by Cook's men and Strange.

The sudden population drop after 1875 is due principally to disease and ~~as time marches on, it~~ in later years is mainly associated with a general exodus of people to nearby cities to be ~~close to~~ near schools and ~~jobs~~ employment. Once Moot~~h~~s ~~their~~ children become involved in Eurocanadian urban culture, they ~~virtually, never~~ rarely return to the reserve except for short visits, temporary residence and, in the future, probably to live in old age.

~~All in all~~, it is difficult to arrive at a population figure for Yuquot during the 1789 to 1805 period, but both before and after these 16 years ~~it may be suggested that during the early historic period~~ the village population varied between 500 to 600 people until the small pox epidemic of 1873.

Settlement Patterns and Systems

SETTLEMENT PATTERNS AND SYSTEMS

Although Trigger (1968) and Parsons (1972) have reviewed most of the literature on settlement patterns, it may be helpful to make a few statements here. As is well known, Willey was among the first to emphasize use of the settlement pattern concept. In Prehistoric Settlement Patterns in the Virú Valley, Perú (1953), he related settlement pattern changes in a small Peruvian valley over several thousand years in response to socioeconomic trends and to historic events.

In this study, the way "man disposed of himself over the landscape in which he lived" (Willey 1953: 1) will be viewed as to

> (1) the nature of the individual domestic house types; (2) the spatial arrangement of these domestic house types with respect to one another within the village or community unit; (3) the relationship of domestic house types to other special architectural features...; (4) the overall village or community plan; and (5) the spatial relationships of the villages or communities to one another over as large an area as is feasible,

including an ecological dimension as well (Vogt 1956: 174). Points 2 and 4 will be examined in the following chapter on community patterns and points 1 and 3 have been examined in (Part 2) in the chapter, Architecture, House Posts and Exterior Poles.

I shall also report the activities that took place at various sites throughout the year. Also, following Winters's (1969) lead, the functional relationship between the various recorded sites the Yuquot Nootkans utilized at different seasons and at different stages of their historical development will be investigated to discover their different settlement systems through time and the causes of the differences.

Before discussing the Nootkans' various residential shifts, the various resource alternatives present in the Nootka Sound area will be described as Watanabe (1968: 77) did for the Ainu. These were:

1. Open ocean: Large sea mammals such as whales, porpoise and seals could be hunted during the spring and summer.
2. Shoreline facing the open ocean: fish such as halibut and spring salmon and other varieties of smaller fish could be caught. Sea mammals such as sea otters could be hunted as could ducks. Dentalia could be collected in a few areas.
3. Rocky beaches facing the open ocean: seals could be hunted when they hauled out on the rocks and, according

to Mozino (1913), so could sea otter.

4. Gravel beaches facing the open ocean: canoes could be launched and landed, but in good weather only. ~~Clams and other~~ crusteceans and could be collected, ~~as could~~ firewood.

5. Terraces along gravel beaches facing the open ocean: villages could be built and firewood collected. A certain amount of land mammal hunting, especially deer hunting, was also possible.

6. Bays and coves with gravel beaches facing the open ocean: houses could be built and canoe launching and landing was easier especially during winter when the protection offered by a bay or cove made any form of travel or subsistence activity associated with the sea much less risky. Offshore fishing was possible as was herring roe collection.

7. Inlets: canoe travel was easier on a year-round basis in inlets than in open water. Herring, spring salmon and other fish could be caught, especially during cold and stormy weather, and plant life could be collected along the shore.

8. Inlet areas fronting rivers: ducks consuming salmon roe, could be caught in great numbers as could seals pursuing migrating salmon.

9. River mouths and surrounding area: villages could be built, canoes launched, tidewater traps set and plant life collected.

10. Upper rivers: salmon could be harpooned and caught in weirs.
11. Land bordering outer beaches and rivers: land mammals could be hunted or trapped, logs cut for building houses or carving canoes, and cedar bark collected for clothing and other woven items.
12. Hill and mountain sides: land mammals could be hunted.
13. Mountains: shrines could be built and elk could be hunted.
14. Freshwater lakes: shrines could be erected and salmon could be caught in some lakes.

Although the above covers most of the main resource areas available to people living in the Nootka Sound area, other microdivisions occur for each one given here. Every nook and cranny in Nootka Sound not only has a name, but also possesses value for their Nootkan exploiter.

The Nootkans' choice of dwelling places was, according to Drucker (1951:), determined by a number of subsistence as well as non-subsistence factors of which two of the most important were water and shelter. Summer villages, like Yuquot, were located on the lower reaches of an inlet or on outside beaches. Sheltered sites were not necessary because summer weather was comparatively mild, but dependable fresh water supplies were important because some water sources dried up during the relatively rainfree months. Thus, the constant supply of fresh water from Jewitt Lake (among many other factors)

made Yuquot a summer desireable site. Winter sites not only had ready sources of water from numerous rivulets swollen by the winter rains, but also shelter from winter storms.

A good record of the Yuquot Nootkans' frequent moves is available for the historic period and provides sufficient information to develop a diachronic analysis of their settlement patterns.

PROTOHISTORIC PERIOD

According to Drucker and several of my respondents, different people "owned" each site in the Nootka Sound area during ancient times. They stayed at the sites during most of the yearexcept when they went to places like Yuquot for potlatches and similar festivities. Whole groups of people did not move from one place to another as they did later (SIA).

EARLY EXPLORERS

Because the Nootkans' houses at Yuquot appeared to be temporary, Cook and Ledyard inferred that the Nootkans only used them during the summer fishing season when they lived on the outer coast. They thought the Nootkans had better constructed residences further inland where they spent the winter and which were better situated for hunting land mammals.

Cook and Ledyard were partly correct, but the reasons for the seasonal shifts were not those they suggested. The Nootkans moved up the inlets in the early fall to trap salmon

as well as to hunt land mammals and practice other activities described below. The structures in Yuquot were disassembled and the planks floated on canoes to interior villages. Only the enormous house frames were left at Yuquot. There is no reason to believe that the inland structures were better suited to the weather than those in Yuquot (Ledyard 1783: 73; Ellis 1783: 206; Cook 1785: 316-317; 1967: 318, 1409; BCU, a; BCA, A/A/20.5/R31CC/v. 5).

EARLY TRADERS

Many Yuquot Nootkans had moved to an unidentified site when Strange arrived in Friendly Cove in July 1786, but they soon returned when they learned that he intended to anchor in the cove for a while. However, after exchanging goods with him, families assembled their belongings and stock of fish for the winter, loaded them on platforms placed over their canoes and left. They told Strange that they were going far away and that "the Sun would sleep five times before they arrived there." They had plenty of fish so they were going where they could hunt bear, deer, and sea otter. Long before Strange hoisted anchor, only approximately 100 of the original 500 people still occupied Yuquot (Strange 1928: 37).

Meares noted a commotion in Yuquot on 10 June 1788, and on investigating he discovered that the greater part of the houses had disappeared "as if by enchantment." Maquinna informed Meares that his people were preparing to move to a

bay about two miles from the sound because great amounts of fish had been reported there. Maquinna added that he was moving not only to obtain whales and other "fish" for the present, but also to stock supplies for the winter. (They were probably moving to tsa'tsiɬ or ka'aɬi to fish and hunt whales as they may have done during Strange's visit). Maquinna later moved to tacīs on 4 September 1788 (Meares 1791 Vol. 1: 201-2, 344).

SPANISH OCCUPATION

Haswell recorded that the Yuquot Nootkans set up their residences in Yuquot toward the end of January 1789. During April he noted several occupied villages along Tahsis Inlet, but tacīs itself was unoccupied (Howay 1941: 58-63).

According to Martínez, Sanchez, and Patero, the people of the Nootka Sound area moved frequently during the course of a year in search of fish and therefore had no permanent villages. In one series of moves, the Nootkans changed their residence three times in slightly more than two months, apparently to collect roe.

On 14 May 1789 the Yuquot Nootkans left Yuquot and moved to a nearby village site to fish. Because the move was made in May, they may have made it to get in a better position to hunt whales as well as to fish as Sanchez suggested. Although the location of this village is not certain, it was, based on Martínez's, Sanchez's, and Socies's descriptions,

probably west of, but near, Yuquot and on or near the open Pacific -- mowinis, ka'ałi or tsa'tsiɬ. On 25 August Martínez noted that Maquinna and his people, with their house planks, passed Yuquot en route from a village on the open ocean to tacīs thus further supporting the location of the spring and summer site on the open Pacific. By 27 September of that year all the people inhabiting the coastal villages had moved to tacīs and the surrounding area (AGN, 65/8; BCU; HR/F5812.1/M3/S2; YUL, WAM/415; AGN, 31/10).

Bodega y Quadra claimed that the Yuquot Nootkans moved every month (at least during the time he was in the area), but Eliza and Pantoja observed more accurately that the Nootkans moved five times a year, that they coordinated these moves with the movements of the fish on which they depended and that their village sites were located in sheltered coves with good beaches so they could land their canoes easily. According to Caamaño, the Nootkans, directed by their chiefs, moved only three or four times a year. They went to camps on the coast or sites featuring the mildest climate and the most fish in the area (BCU, HR/F5813.1/B61/cop. 1; AGN, 69/7; AGN, 69/9; Wagner 1933: 159).

Some of the Nootkans' many moves from 1791 to 1795 were recorded. On 9 August 1791 Maquinna and all the other chiefs (and their people) went to tacīs because they needed fish and everyone was becoming ill. On 22 August of the same year, many loaded canoes coming from outside sites passed Yuquot

en route to the interior of the sound. While visiting Maquinna, probably during the spring of 1792, Bodega y Quadra watched the Yuquot Nootkans catching "sardines" near mawun and had the scene drawn (Fig. 00). In April 1793 Maquinna moved from tacīs to ka'aƛi, said to be close to the beach and fronting the ocean about two miles west of Yuquot. During July 1793 a group of Nootkans were living on a point near "Maquinna Lake" (either ka'aƛi or tsa'tsiƛ). On hearing that the Spaniards had felt threatened by this group's behaviour, Maquinna's brother told Saavedra that neither he nor Maquinna were responsible for it because they were living in kūptī at the time. On April 20 1794 Maquinna told Saavedra that he was going to move to the village site on the outer coast where they were accustomed to living during the summer. The village was probably ka'aƛi. The move had been made by 22 April and a whale had been harpooned by the 30th. On 11 September 1795, although a small fishing party of Maquinna's people was living in Yuquot, Maquinna and most of his people were living in nearby mawun (AGN, 71/10; MN, 755; PAC, MG 12 A, Adm 55/17; BCU, HR/F5813.1/B61/cop. 1; Bishop 1967: 95).

Moziño stated (probably erroneously) that Maquinna's villages began at "Cabofrondoso" (Cape Cook) and were situated two or three miles from each other. When winter approached, the people from the most exposed areas moved to more sheltered ones. Those at Cabofrondoso moved near Maquinna Point, those near Maquinna Point moved to "Macuinas" (Mowinis) and those

at Yuquot moved to kūptī. The rest of the people were said to eventually go to tacīs, sheltered and milder than the outside sites, for December and January. At tacīs the Nootkans received visits from the Nimkish and the lower ranking people spent the nights singing and dancing.

When they moved the Nootkans lashed their house planks and possessions to three or more canoes so they could move everything in one trip. Only the house posts were left behind. ~~According to Mozino~~ they had not adopted permanent European-like structures because they moved so frequently (Mozino 1913).

SPORADIC CONTACT

Jewitt had many opportunities to participate in and observe the Yuquot Nootkans' seasonal shifts in the 28 months he spent with them. The Yuquot Nootkans took everything with them on such moves; their canoes were piled high with planks and boxes and boarded by shouting and singing men, women, and children of all ranks and ages.

On 3 September 1803 the Yuquot Nootkans left Yuquot in the morning and arrived at tacīs at 4 P.M. and at once made "huts of some spars." They moved there every year to obtain their provisions ~~for the~~ winter. The Yuquot Nootkans moved to kūptī on 31 December of the same year, arriving there at 2 P.M., and apparently had completely assembled their houses by 3 January 1804. They spent the rest of the winter there and completed their fishing requirements. After remaining

in kūptī for 57 days, they returned to Yuquot at 4 P.M. on 25 February 1804 and stayed there until 7 September 1804 when they went to tacīs, arriving there at 4 P.M. They completed their houses on 9 September. They stayed in tacīs until 13 December 1804 when they moved to kūptī, arriving at 4 P.M. Besides obtaining the usual large quantity of herrings at kūptī, they practised the same "riotous feasting" there as they had the year before. On 19 or 20 February 1805 they returned to Yuquot, at approximately the same time as they had the year before. Jewitt did not describe any major moves to ka'aɬi or ts'tsiɬ although he did refer to people fishing in the outside waters (Jewitt 1807: 14, 17, 30, 38; 1896: 145-146, 167, 172, 208, 212).

When Roquefeuil first visited Yuquot in early September 1817, almost all the villagers had moved to tacīs. On 10 September another group departed. Their entire move was said to take less time than a European required to pack his suitcases. On 16 September Roquefeuil observed another group in several canoes leaving for tacīs. In 1818 Roquefeuil arrived in Yuquot on 5 September and found that most of the village was occupied (Roquefeuil 1823b: 29-30, 33, 95).

EUROCANADIAN PERIOD

At least in the historic period, the Nootkans according to Drucker (1951:), spent the early spring on the lower reaches of the inlets where they fished herring. In the late spring

they moved to fishing stations on the outer coast -- the second-most important sites they occupied -- where they took offshore fish and hunted sea mammals. In the fall they moved to salmon streams, generally located in the upper reaches of the inlets. Drucker considered these sites, such as tacīs, to be of the greatest importance to the local groups and to be their real homes. After residing at the salmon streams, the Nootkans established themselves in their winter villages, like kūptī, which were, ideally, located up inlets protected from the prevailing southerly winds and having good beaches. Formerly, people who did not have an "inside place" wintered at sites on the stormy outside beaches, such as ɛ'as and tsaxsis, where the weather might prevent them from launching canoes for as long as two weeks. The "inside" winter villages were more noted for festivities than for food gathering. Winter was the period of the heaviest rains and, with the fall catch of salmon stored away, people preferred to remain indoors. (According to my notes a considerable amount of food was obtained at these sites.)

War refuge sites were also important. At times these were located on small islands whose precipitous sides made access difficult, but such sites were inhabitable only for short periods due to poor sources of water, food and fuel. Where no refuge island was available, stockades, like the one at a'amiŋàs, might be built.

Around the turn of the century the Moachat began to feel

the pressures of Eurocanadian presence in their yearly cycle. After 1900 most were beginning to stay at Yuquot and seek work at the nearby saltry or cannery, or move to other cannery locations or ship out on sealing schooners. Most modern Nootkan summer villages, such as Yuquot, have been inhabited year round in recent times. The change in the Nootkans' life style was concomitant with their increased dependence on Eurocanadian goods and subsistence items. The outer villages were closer to the routes of schooners and, later, steamships which supplied the Eurocanadian items in demand. More recently, the Nootkans have been moving, especially in the winter, to places like a'aminqàs near the modern towns of Gold River, Port Alberni and Victoria where salaried work is available and life is easier than at Yuquot during any time of the year except when Nootkan and Eurocanadian values conflict.

DISCUSSION

A review of the seasonally variable subsistence resource areas will further indicate the bases on which the Nootkans moved from site to site. However, as Drucker pointed out, the entire population did not engage in seasonal subsistence activities at one time except for the fall salmon fishing and, at most places, the herring fishing and even these activities were not attended by everyone -- some older people remained behind in a village to tend fires used to smoke fish caught nearby and men of a local group whose chief held rights to an inlet

suitable for netting ducks would engage in this pursuit. Present-day respondents also state that men who were considered expert hunters hunted and those noted as fishermen fished.

At least for most of the historic period, according to Drucker (1951:), during the spring the Nootkans inhabited sites on the lower reaches of the inlets where men would go out daily for herring with rakes and nets, feasts frequently being given with the fish brought into the villages while quantities of herring were also dried for future consumption. However, an analysis of Jewitt's journal (1807) indicates that herring were collected during the time the Yuquot Nootkans stayed at tacīs and kuptī, their fall and winter villages respectively, as well as along the lower reaches of the sound during the spring. With the herring came the spring salmon that fed on the herring schools, but spring salmon were not dried and it was tabu to keep them overnight. Seals pursuing the spring salmon were also hunted.

In March or early April when it was observed that herring would soon spawn, fences were prepared to collect the roe. (During the early historic period this event often occurred in February.) Heavy spawning usually lasted for four or five days in one cove, but the herring spawned later at different places in Nootka Sound, the last place being at Yuquot (SIA).

At the end of the herring season sea weed (hâcqets) was collected. Migratory water fowl came in on their way north about the end of the herring season and it was also about this time

that some people moved from places such as Yuquot out to the outer coasts to fish for halibut and hunt sea mammals.

Although hair seals could be hunted at almost any time of the year, the favourite season was in the late spring when people assembled at the outside villages such as ɛ'as and tsaxsis. Sea lions, porpoise, sea otters and, in recent times, fur seals were hunted while the Nootkans inhabited the outside beaches.

Whaling began in April (or earlier). The most commonly hunted whale was the ma'ak which Drucker thought to be the California grey. The humpback was also hunted in early summer although it could be seen along the coasts at almost any time of the year. Several other whales were also hunted, but not the sperm or sulphur-bottom whale. Young whalers hunted killer whales as a test of skill, but those taken were eaten because they were considered to taste good, very like a porpoise.

The gathering season began in the late spring when salmonberry bush sprouts and other greens were sought eagerly for the variety they added to the Nootkan diet. By early summer the berry crops were ripening. Salmonberries were the first to mature, then thimbleberries, red huckleberries, blackberries, cranberries, salal berries and finally winter huckleberries. ~~ripened.~~ Clover patches were dug during the late summer, fern and skunk cabbage roots well into the fall. According to contemporary sources, roots were more plentiful near the inside than the outside sites.

Shiners and a type of perch or other small fish schooled in coves during the later part of the summer and were caught in drives. Sea urchins were most plentiful during the summer.

According to Drucker, groups owning sockeye, spring and coho salmon rivers began their fishing earlier than other groups. Sockeye run in midsummer in certain rivers, spring salmon shortly afterward. There are several minor runs of coho although the main runs occur in the fall. By September when the dog salmon run was well under way, all local groups were at their fishing stations.

Although this schedule is basically true for the Nootka Sound area, ~~as a generality,~~ variations do occur. Sockeye run in a few rivers but only one run is of major importance (Bentley n.d.). Up to 500 sockeye run at hisnit from May to October and less than 100 run at måtcɬī from June to October; however, at a'aminqàs 2,000 to 10,000 sockeye run from May to October, making it the only important sockeye stream in the Nootka Sound area.

Only a few streams support fairly large spring salmon runs. At måtcɬī an average of 3,000 spring salmon go upstream from September to October and at mōwatcà an average of 2,500 ascent the river from August to October inclusive as is the case at a'aminqàs. Up to 1,000 spring salmon ascent Tahsis River from September to October.

Coho run in large numbers in several streams. At a'aminqàs up to 7,000 run from July to December inclusive; at

mâtclī 2,00 to 5,000 from August to December inclusive; at mōwatcą up to 5,000 run from September to January inclusive and 1,500 to 3,000 go up Tahsis River from August to February. Furthermore, 1,000 to 2,000 go upstream at tsawun from September to January. Coho were said to run at mowinis.

There are also several important runs of pinks. The most impressive is at mâtclī where up to 150,000 pinks go upstream from August to October inclusive and 3,000 go up Tahsis River in September and October; however pinks did not run every year in every stream. In the Nootka Sound area they appear on the even-numbered years, but some pinks have been observed during odd-numbered years. The only exception is Conuma River, bordering mōwatcą, which receives up to 1,500 pinks on both even and odd years (Bentley n.d.).

The river at a'aminqâs supports a steel run of up to 3,000 fish and Tahsis River up to 1,000 that run in both streams year round. The heaviest run in Tahsis River occurs during the winter.

When discounting the fantastic pink run at mâtclī, chum salmon runs are the largest runs in the Nootka Sound area. For example, 5,000 to 15,000 chum go up Tahsis River from September to December and 5,000 to 6,000 ascent nearby Leiner River during the same period. At mōwatcą 5,000 to 10,000 chum go upstream from September to November inclusive and 2,000 to 5,000 go upstream at mâtclī from August to December inclusive.

When comparing the large and early runs of sockeye and coho at the Muchalat site of a'aminqás and the huge run of pinks at mātcḵī, it is evident why the Moachat were interested in conquering Muchalat territory. The results would have been the possession of salmon streams supporting large runs of different species of salmon from May until December, thus virtually assuring the possessors of a constant supply of river salmon for more than half the year. This plus the large schools of herring that frequent parts of Nootka Sound, the sea mammals, shellfish and water fowl would surely have guaranteed them more than a taste of the "good life."

Also during salmon spawning season, traps were set in shallow places for diving ducks and gulls.

At the winter villages, heavy rains often kept people inside. Although this was the time for festivities, men also fished for cod and set traps for kelpfish and perch and hunted clams. Molluscs and other marine forms were gathered during the winter, but some varieties were found near the outer beaches and were collected in spring and summer instead of winter as noted in the Nootka Sound area during the early historic period. Although winter trapping of deer and fur-bearing such as mink, marten and land otter was carried out during ancient times, the importance of most fur-bearing land and sea mammals increased during the period of European trade. It was also during the winter that the most dead whales drifted ashore.

Most of the natural resources were seasonal, either being obtained during annual migrations, as in the case of salmon herring or water fowl, or obtainable during periods when the sea was relatively calm, as in the case of sea mammals and halibut. As Drucker noted, the seasonal nature of the food quest is reflected in the moon-count descriptions.

Occasionally, a poor dog salmon or herring run followed by an unusually stormy winter or spring would prevent people from fishing for cod and halibut and quickly result in privation. People would walk the beaches looking for codfish heads left by seals and sea lions and storm-killed herring and pilchards. They also collected and ate tiny mussels from inner coves and bays and similar, normally disdained, smaller molluscs as had Jewitt and Thompson. The spring was often a leaner season than winter, but in general periods of scarcity did not seem to Drucker to have been very frequent and he characterized them primarily as periods of short rations but seldom real starvation. Food was available most of the time and it was frequently so abundant that the Nootkans could not consume it all even with the most extravagant feasting. (Drucker 1951:).

Nevertheless, periods of scarcity did seem to be frequent ~~at least~~ in Yuquot where they were described for a large percentage of the years that the village was visited and inhabited by Europeans and Americans. Food was usually plentiful during certain seasons, like the fall, but it was

not so plentiful that it could not be consumed in extravagant feasting. It would appear from the ethnohistoric record as well as statements by present-day respondents that frequent feasting followed by a stormy spring and summer brought hardship (see Adams 1973: 90-92). It has been either inferred or observed from earliest contact that the Nootka Sound people made seasonal moves to enable them to better tap specific subsistence resource areas, to escape the harshness of winter on the outer coast and, for short periods of time, to visit other groups for alliance festive purposes although not all local groups or all members of all local groups moved from place to place either before or after historic contact. What does seem to emerge from the data is that mobility for subsistence (and other) purposes has increased in the Nootka Sound area since earliest times through the process of kinship-based local alliances and armed conflict always initiated (it seems) by dominant "outside" groups (cf. Beardsley et al 1956).

Since ancient times the rationale behind Nootkans' settlement patterns was to put themselves in a position where they could exploit their environment ~~to the maximum extent~~ as fully as possible during all seasons while remaining a days' travel or less at any time of the year from each of their resource alternatives. The major change through time is that the amount and quality of their resources increased as ~~Nootkans'~~ their degree of access to various resources increased. Most Nootkan groups had access

to the same kind of resources within short distances of their principal villages, but as time passed they strove to gain access to bigger and better resources thus establishing the necessity of expanding their territorial prerogative and necessitating the shifting of their residence to be better able to exploit their resources even though they may be only a days' travel away from the site they left and the next one they were headed for.